3-2017

Finding Fort Fair Haven: Archaeological Investigations of an 1862 Settlers' Fort

Jacob G. Dupre
St. Cloud State Univeristy

Finding Fort Fair Haven:

Archaeological Investigations of an 1862 Settlers' Fort

by

Jacob Dupré

A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree of

Master of Science

in Cultural Resources Management Archaeology

May, 2017

Thesis Committee:
Rob Mann, Chairperson
Mark Muñiz
Robert Galler

Abstract

The goal of this thesis is twofold. The first step was to perform archaeological test excavations on the Fort Fair Haven site in order to confirm that we had, in fact, located the 1862 historical site of Fort Fair Haven. Once we successfully determined that it was indeed the fort, then the second step was to analyze these findings and use them in conjunction with archival research in order to better understand what kind of actual defensive function it could have provided. A specific way of doing this is to compare the civilian fort's design with those of military fortifications of the period.

The data recovered strongly suggests that we did indeed successfully locate Fort Fair Haven. Because of the somewhat haphazard placement of the posts and their overall lack of uniformity, however, the so-called fort may have better been considered a makeshift barricade. With this in mind, the structure contrasts greatly with contemporary military fortifications, though it does share some similarities with other frontier outposts and palisades of the same period. The fort's structure may have therefore served some practical function of slowing down—if not entirely repelling—potential intruders.

Acknowledgements

I would like to thank the many individuals and organizations who have helped me prepare and revise this project. First and foremost, I would like to express my deepest gratitude to my committee members, Dr. Mark Muñiz, Dr. Robert Galler, and my committee chair, Dr. Rob Mann. Without their time, dedication, and commitment, this project would not be half of what it is now. I would also like to thank David Vavreck, the Minnesota Historical Society, the Stearns County History Museum, the Brown Historical Society, and the Paynesville Area Historical Society Museum for their assistance in locating and retrieving various records, photographs, and more. I would like to extend a special thanks to the Kjaer family for both their cooperation and enthusiasm throughout the excavations, and for so willingly allowing us to dig up their backyard. I am also especially grateful for the constant encouragement, love, and support I have received from my wife, my parents, family, and friends throughout this endeavor. Thank you!

"The wide world is all about you: you can fence yourselves in, but you cannot forever fence it out."
J.R.R. Tolkien, *The Fellowship of the Ring*

Table of Contents

List of Tables

List of Figures

Figure Page

Chapter I: Background and Literature Review

Introduction

In the late summer of 1862, the residents of the small village of Fair Haven, Minnesota worked in the fields and around their homes, much as they had the previous few years since the town was platted in the 1850s (Atwood and Dervory ca. 1915). They were a mix of predominately northeastern United States migrants, though a few hailed from the southeast and Midwestern U.S., and still fewer had come from Europe in search of a new life (Census Office 1860). Although their origins contrasted with much of Minnesota's rural populations, many of which were made up of German or Scandinavian immigrants (Carley 1976), they would all take some part in what would later be known as the U.S.-Dakota War of 1862.

Given relatively little attention in the broad study of United States history, this conflict nonetheless sparked a momentous chain of events that still resonate today in the state of Minnesota and beyond. The 1862 war itself was a historical incident of great meaning and grave consequences, one which involved the struggle of thousands of Natives and immigrants, sometimes blurring the lines between freedom, oppression, fear, and bravery. The Dakotas, who had inhabited the land freely for generations, had been backed into a corner. From almost the beginning of their interactions with the U.S. government and its citizens, the Native inhabitants of Minnesota were subjected to failed treaties and compromised relations. After an exceptionally harsh winter and a poor harvest in 1862, the hungry Dakotas became desperate when expected annuity payments did not arrive on time due to Congressional concerns regarding the U.S. Civil War. In August of 1862, four young Dakota men fell into a heated argument with a white settler family near Acton, Minnesota, which ultimately led to the deaths of the white family. This singular incident triggered a conflict that resulted in the deaths of hundreds of settlers, soldiers

and Indians, including the mass execution of 38 Dakota men—the largest single execution in U.S. history. The outcome of this distressed and uncertain time would permanently change the face of Minnesota and its peoples. (Carley 1976; Berg 2012; Wingerd 2010:258-345).

Soon after these tensions gave way to hostilities, Minnesota's white settlers decided whether to flee the state or fortify their towns. Those who chose to remain built what are now known as "settlers' forts," makeshift defensive structures that were, in many cases, constructed with few resources and little time. Although dozens of these civilian-made forts were built across Minnesota and northern Iowa, none stand today, and little is known of their design. Even in the early twentieth century, Howard (1931:303) observed that these civilian fortifications should be given more historical attention, as the last of those who experienced the effects of the war directly were quickly disappearing. Although these generations are no longer here to tell us their stories, we can still gather much information through the interpretation of archaeological data and written records.

Throughout the nineteenth century and beyond, the American west has been mythologized, and the images and concepts of Manifest Destiny, or the United States' divine right to control the continent, have continued into our present day in many forms. Examples of this mythologizing include concepts of the "savage" Natives and the "resilient" Euro-American settlers. As usual, however, the historical reality was much more complex. Long-established relations between whites and Dakotas began to erode in the 1850s due to compromised treaties and a large influx of settlers, such as those who inhabited Fair Haven and dozens of other towns. All of these factors eventually gave way to hostility and violence that was perpetrated by both sides of the conflict. When these relations between Dakotas and Euro-Americans broke down, walls, both metaphorical and physical in nature, were built up. The very nature of these walls

constructed by the settlers, however, has been subject to the mythology of the American west, and is today poorly understood.

The main goal of this thesis, therefore, is to investigate one of these settlers' forts, Fort Fair Haven, and verify whether or not the fort did exist on the site. Once such a judgment is made, the next step is to utilize archaeological evidence uncovered at the site in conjunction with historical records to analyze the fort's design, as well as its functional value. In other words, what form did the fort take? Was it comparable to military forts of the period? Was it sturdy enough to successfully fulfil its defensive purpose? These questions are central to the Fort Fair Haven investigation, and will be addressed throughout the length of this thesis.

Historical Context

The Dakota people consider Minnesota to be their homeland and place of origin, and have thought of it as such since time immemorial. Although the French attempted to lay claim to the region in 1671, the Dakotas continued to possess the land into the nineteenth century (Westerman and White 2012). Shortly after the Louisiana Purchase in 1803, American explorers, traders, and settlers ventured into the region in search of land, wealth, and adventure. In 1805 explorer Zebulon Pike traveled through the area and succeeded in acquiring a 100,000-acre plot for two U.S. military installations. Although the Dakota saw this agreement as beneficial for trade between the two powers, they did not have the same usufruct conception of land use and ownership as the Westerners, and instead viewed this allowance as a display of their own sovereignty (Wingerd 2010:77).

This marked the first in a series of treaties between the United States and the Dakotas, which would define boundaries, transfer lands, and ultimately push the eastern Dakota tribes

onto a narrow band along the Minnesota River. The latter result was a condition of the 1851 treaties of Traverse des Sioux and Mendota, which relocated Dakota Sissetons and Wahpetons to the Yellow Medicine reservation and the Mdewankantons and Wahpekutes to the Redwood reservation. In exchange, the government officials promised the tribes "a comfortable home" and annuities that would make them "comfortable for many years" (Westerman and White 2012:169-183). Although the Dakota leaders were extremely hesitant to cede such lands, they were compromised by both strong-arm American politics and the swiftly deteriorating game that once made up a rich land of plenty around the Mississippi and Minnesota Rivers. Chiefs such as Little Crow, a leader of the Mdewakanton Dakotas (Figure 1-1), could seemingly see the writing on the wall and wanted to at least secure a decent lot of land that was traditionally significant to his people (Anderson 1986:62-63). Yet, even while Territorial Governor Alexander Ramsey pressured the tribal leaders to sign away more lands in 1851, Chiefs Wabasha and Little Crow would not consider another treaty until they were assured that their unpaid portion from the previous 1837 treaty was distributed. Governor Ramsey and Commissioner Luke Lea agreed to these terms, and the new 1851 treaties were signed. Many of the tribes were subsequently misled, however, signing away tens of thousands in alleged debts to traders in what they were led to believe was another copy of the original treaty document (Anderson 1986; Westerman and White 2012).

All the while, Euro-American settlers were pouring into the region. In the 1840s the area's logging industry began to grow in importance, steadily replacing the fur trade. In 1850 the population of Euro-Americans in the Minnesota territory numbered around 6,000; by 1860 it was

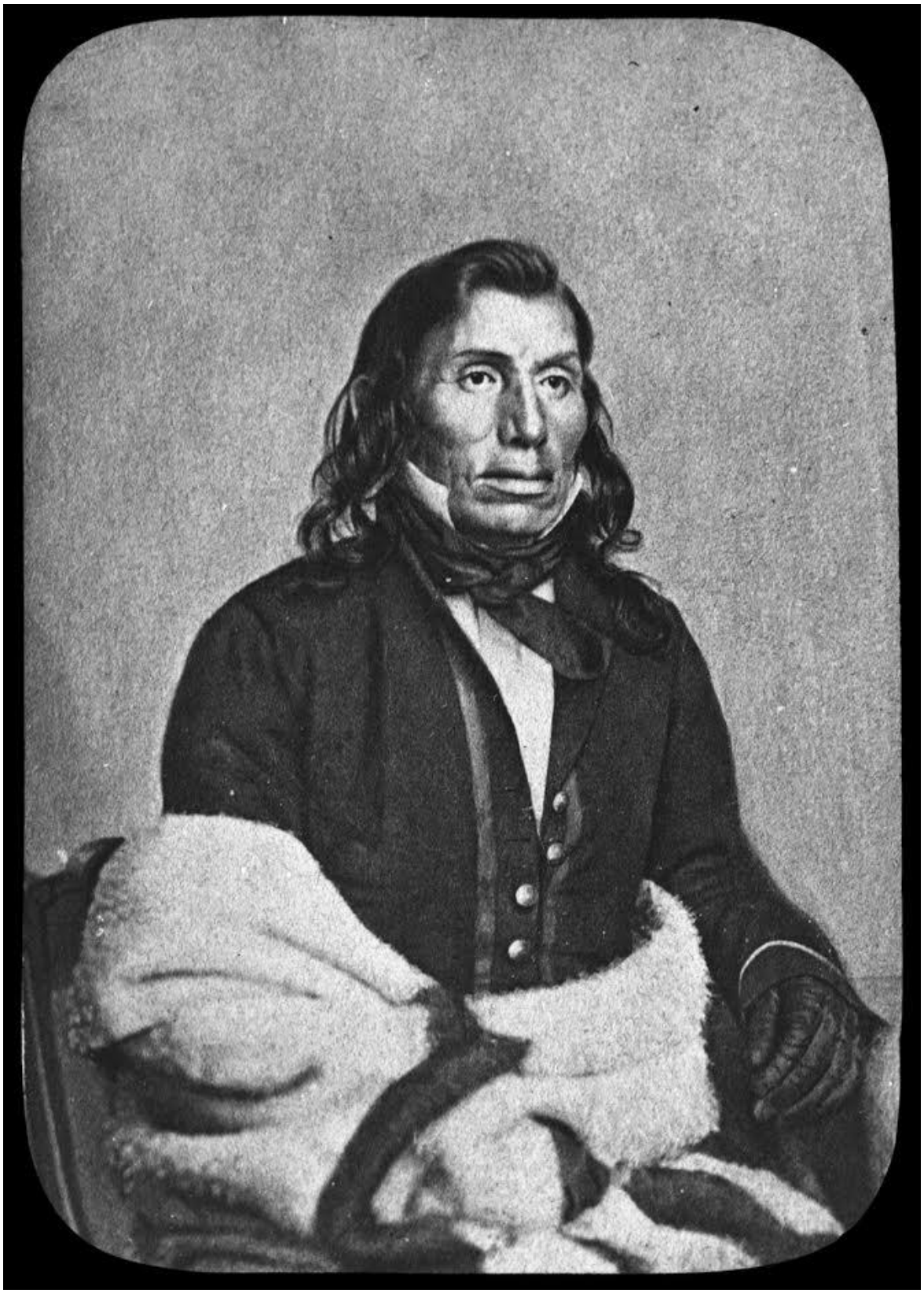


Figure 1-1. Frank Jay Haynes, Little Crow, ca. 1862. Minnesota Historical Society.

over 172,000 (Vincent 1976). The Dakota soon found themselves outnumbered, confined, and, with the 1851 shift in land arrangements, somewhat dependent on the U.S. government for food and other resources (Wingerd 2010:199). The sudden change was especially unpopular with many of the young warriors, who wished for access to lands necessary to hunt and carry out acts of bravery considered integral to Dakota male identity. Even before the treaties of 1851 were ratified and the Indians relocated, white settlers began to spread out across that land, eager to claim lots now opened west of the Mississippi. Although the Dakotas strongly protested such illegal advances, no action was taken against the newcomers. On the contrary, Governor Ramsey and Henry H. Sibley, a trader and fellow politician, conspired to encourage this behavior in order to make the treaty ratifications more likely, thus ensuring a new, non-slavery state would be born.

The burgeoning town of St. Paul was a multi-ethnic community in the 1850s, its population comprised of Americans, French, Germans, métis (of Indian and white ancestry), Dakotas, and Ojibwas, who spoke a wide variety of languages. On the frontier, however, smaller towns often consisted almost entirely of a single ethnic group, such as the German-American settlement of New Ulm. Many of these new immigrants had little to no dealings with Indians, and were ignorant of both the Dakota culture and the circumstances in which the Natives had been separated from their lands (Wingerd 2010:295). Even the citizens of the township of Fair Haven, who by and large hailed from the northeastern United States, would have had little contact with Indians in general, much less the Dakota, prior to their arrival in Minnesota. As such, by 1860 very few relational bonds existed to bridge the cultural gaps between immigrants and Natives. Both Americans and Dakotas viewed each other with a mix of curiosity and contempt. When farmers began to find that their livestock was being killed by Dakotas as a sign

of discontent, however, government officials insisted that there was nothing to worry about and that the settlers would be reimbursed. Had these newcomers had prior experience with the Dakotas, they would have known these actions to be explicit warnings (Wingerd 2010:295-296).

The fall of 1861 yielded a poor harvest due to a cutworm invasion, and the following winter was a particularly harsh one, even for the Minnesota region (Berg 2012). The Santee, or eastern Dakota, suffered the brunt of these conditions, surviving only by trading away materials and firearms for food and relying on the charity of friends (Anderson 1988). During the coming spring and summer months of 1862 the warehouses at the Redwood and Yellow Medicine agencies reserved the food stored there solely for whites and for farming Indians, whom government agents looked upon favorably for taking up more sedentary practices, as opposed to their Dakota relatives who moved to different camps each season. In June, traders halted all purchasing credit to Dakotas for fear that the federal government would not be able to pay the Indians on time. By August 4, a group of Dakota men, no doubt feeling desperate and enraged by the tribe's state of near-starvation, rushed the warehouse at the Yellow Medicine Agency, taking sacks of flour and scuffling with U.S. soldiers who tried to stop them. Tensions between many Dakotas and whites in the area remained high. When the U.S. government, now thoroughly entrenched in war with the Southern states, failed to deliver the annuity money on time, these tensions threatened to burst into violence (Anderson 1988).

The stage was then set for the events that led to outright conflict. The four young Dakota warriors at Acton in August 1862 operated spontaneously and independently, but Mdewakanton Dakota leaders such as Little Crow knew that this action would bring "speedy and indiscriminate retribution down on all of the Dakota…" (Berg 2012:9). Little Crow had traveled to Washington D.C. twice and knew full well the force that the white Americans could muster, but the Dakota

chief, whose influence had begun to wane due to his perceived appeasement of the whites, nevertheless reluctantly decided to lead the fight. As conflict loomed, other Dakota tribes were divided on the question of war, and a great many chose not to participate (Berg 2012). Regardless, the initial offensive was overwhelmingly successful and surprise attacks on the Redwood and Yellow Medicine agencies killed and routed the whites there (Carley 1976). Little Crow and other chiefs, such as Big Eagle, then turned their attention to Fort Ridgley, which they believed was key to routing the U.S. military and taking back the region. After two attempts to take the fort, however, the Dakotas failed to wrest it from the small contingent of soldiers, who utilized cannon fire to keep the Indians at bay (Brown 1970; Berg 2012).

Unsuccessful in their attempt on Fort Ridgely, Little Crow and his warriors turned towards the nearby town of New Ulm, a settlement that consisted largely of German-American immigrants. Over two-hundred citizens from the surrounding area had gathered at New Ulm after hearing reports of war and, although the initial Dakota charge broke the civilian's firing line and much of the town was set ablaze, the settlers of New Ulm managed to hold out from a barricaded four block square of the town (Carley 1976; Berg 2012). Flustered by recent setbacks and yet still determined, the main Dakota force split up. One force surrounded and engaged a detachment of soldiers, causing sixty U.S. casualties in the Battle of Birch Coulee. A smaller force, led by Little Crow, divided into two groups and attacked the towns of Hutchinson and Forest City. Both towns had been warned of the incoming attacks, however, and had erected stockades and blockhouses. The citizens at Forest City had but 24 hours to work before the attack came. In both cases, the Dakota warriors could not overtake the settlers, due in large measure to the fortifications that they had built. Frustrated, the Dakota warriors looted and burned what they could at these settlements before moving on (Carley 1976; Anderson 1988).

Although Little Crow and his band initially aimed their attacks at the swindling traders, corrupt officials, and the U.S. military who had caused much grief over the years, other smaller factions of the Dakota also went on violent raids throughout the frontier communities of Minnesota, displacing white settlers who in turn sought asylum in larger towns, or fled the state entirely (Figure 1-2). These raids in particular ignited hostilities with the white settlers who chose to remain in the region. As was the Dakota custom in war, men, women, and children were sometimes treated with little distinction, which especially enraged many whites. Jane Grey Swisshelm, editor of the *St. Cloud Democrat* newspaper, printed reports of violent acts perpetrated by "savage" Dakotas, and concocted wild stories of the Southern Confederates instigating the Indians into action to create a new front for the Civil War. In her articles, which

Figure 1-2. Adrian John Ebell, refugee settlers on the Minnesota prairie. Minnesota Historical Society.

seemed at times to reach a hysterical pitch, Swisshelm claimed that all Indians were “vermin” and should be eradicated, even proposing that the United States offer a price on the scalp of any Dakota killed (Berg 2012:208-209).

Meanwhile, the conflict was quickly drawing to a climax. On September 21, 1862 Little Crow’s main Dakota force scouted a detachment of soldiers led by then-former governor Colonel Henry H. Sibley, who was dispatched to quell the Dakota uprising. Though outnumbered, the Dakota warriors were confident that they could defeat the soldiers by way of a well-placed ambush. However, while out picking berries to supplement their rations, U.S. soldiers discovered several Dakotas hiding and the trap was sprung prematurely, leading to one last decisive Dakota defeat at the Battle of Wood Lake. Little Crow and many of his warriors were forced to flee west to the Dakota Territory (Anderson 1988; Berg 2012).

Many Dakota factions had, from the outset, made clear that they did not wish for war, and even rescued white prisoners from Little Crow’s camp while the campaign continued (Anderson 1988). Little Crow found minimal aid from many of these Dakota, who chastised his actions against whites. As such, Little Crow was forced to winter out west with distant relations. He also attempted to garner support for a counterattack from these tribes. In addition, Little Crow appealed for help from British Canadians he visited in Manitoba, citing an old alliance between his grandfather and the British during the War of 1812. Not only were these attempts unsuccessful, in some cases the western Dakota tribes wanted no part of the insurrection and made this clear by shooting at or otherwise chasing the Santee Dakotas away (Anderson 1988).

In the meantime, Colonel Sibley had sent word that any Dakotas who gave themselves up would be treated fairly (Berg 2012). As a result, many warriors did as much and joined the other peaceful Dakota men, women, and children at Camp Release, just north of the Minnesota River

near present-day Montevideo, Minnesota. Sibley commenced to set up a military commission and tried hundreds of Dakota warriors on a wide swathe of charges. Most individual trials lasted five minutes or less and were tainted by poor communication between translators and Indians, many of whom did not understand that simply admitting to being present in a battle was a death sentence. Thus, 303 Dakota men were sentenced to death by the military court martial. However, neither Sibley nor Governor Ramsey felt that they had the authority to condemn so many men. They petitioned President Lincoln, asking him to quickly authorize the sentences so that justice could be carried out. Lincoln and his attorneys instead went through each individual case, finding only 39 men to be guilty of war crimes. One of these men, Round Wind, was later found to be innocent and released prior to execution. On the morning of December 26, 1862, 38 Dakota men were hanged simultaneously from the gallows erected in the town square of Mankato, Minnesota. This was, and still remains, the largest mass execution on U.S. soil (Berg 2012).

The remaining hundreds of Dakotas were confined through the winter in an internment camp, which sat in the shadow of Fort Snelling (Anderson 1988, Berg 2012). On the way to the camp, these men, women, and children who had opposed the war were subjected to abuse by white settlers who had just weeks before fought for their lives. Dakotas were struck with stones, bricks, clubs, pitchforks, scalding water, and more, the worst being in the towns of Hutchinson and New Ulm, which had each suffered heavy losses from Dakota attacks. Several stories note the deaths of infants and the elderly on these marches (Wilson 2004; Berg 2012). Once within the walls of the Fort Snelling camp, ill-rationed and subject to the elements—far from their traditional wintering location in the Big Woods—many more Dakotas perished from disease and malnutrition (Figure 1-3). Those who did survive were shipped up the Missouri River to Crow Creek Reservation, a harsh landscape that was barren of most resources. Many more Dakotas

perished prematurely there due to the poor conditions (Berg 2012). It did not take long for many resilient Dakotas to take matters into their own hands, however, and by the 1870s and 1880s some had already traveled back to their homelands to settle in rural parts Minnesota (Westerman and White 2012).

Figure 1-3. Benjamin Franklin Upton, Dakota men in the Fort Snelling internment camp, winter 1862-1863. Minnesota Historical Society.

As many white Minnesotans were rebuilding their settlements in the summer of 1863, Little Crow returned—this time with only his son, Wowinape, at his side. It is difficult to know exactly why he returned; reports range from a horse-stealing mission to simply wanting to see his homeland again (Anderson 1988; Westerman and White 2012). In any case, as he and his son picked berries northwest of Hutchinson, Minnesota, they were spotted by a farmer and his son. With reports of marauding Indians still circulating, tensions were quite high and the two white men opened fire. Little Crow returned a few shots, but at the end of the skirmish he lay dead and Wowinape fled, though he was later apprehended by Colonel Sibley's scouts (Anderson 1988).

Fair Haven, Minnesota

As mentioned above, the outbreak of violence between Dakotas and whites resulted in the construction of makeshift fortifications throughout the frontier communities of Minnesota (St. Cloud Democrat 1862). These settlers' forts (also referred to as civilian forts) were a direct reaction to the fear and uncertainty that sprang from the so-called "Sioux Uprising." The stockades, blockhouses, and other defensive works built were the material, tangible evidence of the frontier settlers' uncertainties as they sought to defend themselves from the desperate Native attacks. Fort Fair Haven in Fair Haven, Minnesota is one such stockade among over fifty that are known to have been built, and more recent estimates place that number at closer to 100 (Carley 1976; David Vavreck, personal communication 2017).

Fair Haven (Figure 1-4), one of the aforementioned rural frontier towns, was founded by Thomas C. Partridge in May 1856 and was platted that July. According to Atwood and Dervory (ca. 1915), a general store, the town's mill, and a dam were all built the following year. Also according to Atwood and Dervory, a man by the name of J.K. Noyes built a log structure as a

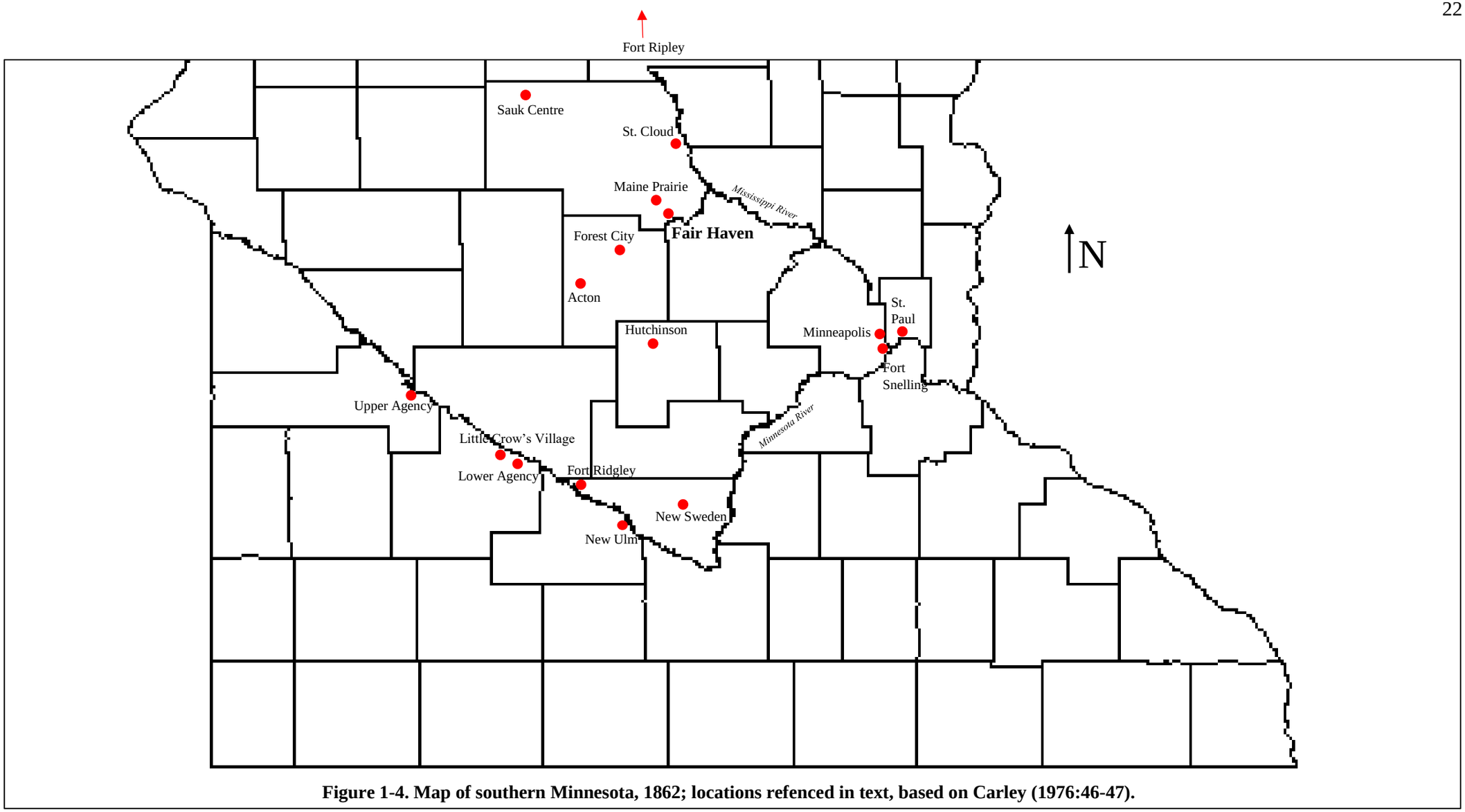


Figure 1-4. Map of southern Minnesota, 1862; locations refenced in text, based on Carley (1976:46-47).

tavern to stand until his “Octagon hotel” was completed, the tavern being the later location of the 1862 fort. In 1858 a post office was constructed, a grist mill was built in 1859, and a frame hotel was built by James Tucker, which eventually burned down in 1882. In addition, A. Thayer built a two-story hotel, which was still standing in 1915 (Atwood and Dervory ca.1915).

According to the Federal Census in 1860, most of the townspeople were Americans who moved to Minnesota from the Northeast, including the states of Rhode Island, Massachusetts, New York, Pennsylvania, Connecticut, Maryland, and Maine. Some also migrated from Midwestern states such as Ohio, Indiana, and Illinois, while a handful came from as far south as Virginia. Joining these American-born citizens were also a small number of European immigrants from the countries of Luxembourg, Ireland, England, and Prussia, as well as a couple from New Brunswick, Canada. The vast majority of Fair Haven’s townspeople were farmers or “farm laborers,” but there were also a couple of masons, a real estate dealer, a few carpenters, a miller, a teacher, a servant, and a shoemaker (Census Office 1860). The town was overwhelmingly Republican, and a large celebration was held when Lincoln was elected President in 1860. When the Civil War erupted that same year, at least nine volunteered for the Union army, and several others signed up in subsequent years (Vye 1927). This town, like many frontier settlements, was fairly isolated and a good distance away from the nearest military installations of Fort Ridgley, Fort Snelling, and Fort Ripley, and the security they provided (see Figure 1-4) (Carley 1976).

The handful of known sources regarding the town of Fair Haven have slightly different recollections of the events during August and September of 1862. J.A. Vye (1927) wrote that, upon hearing word of danger sometime in August, most families living in or near Fair Haven were sent away to larger nearby towns, such as St. Cloud, while the men stayed behind in order

to guard their homes. Vye (1927) writes of a stockade that these men built, which encircled "the old log building, formerly used as a hotel…" (Vye 1927:5). E.H. Atwood (ca. 1895) provides a similar account. He notes that the townspeople decided that, because Fair Haven was surrounded by timber and ravines, it would be difficult to defend against a potential attack. Atwood (1895:48) also recalls that the women and children were sent away "to a place of safety," while around 15 men stayed behind to defend their homes. These men designated one member of their party, A. Montgomery, as captain, and began work on a stockade that would surround the "old log building" that had been used as a hotel (Atwood ca. 1895:48). Atwood and Dervory also make a distinction between the formerly mentioned log tavern and the so-called Octagon hotel. According to them, it was the log tavern that was the building used as a fort during the U.S.-Dakota Conflict, not any of the other hotels that were built (Atwood and Dervory, ca. 1915).

Not long after the work there began, word of a possible conflict at the town of Forest City reached Fair Haven, and about a dozen men decided to interrupt their project to help (see Figure 1-4). Forest City's numbers swelled due to the arrival of 300 or 400 settlers from the surrounding towns and villages (Atwood ca. 1895). The town did come under attack the morning of September 4, but it was successfully defended by armed civilians and the stockade they hastily erected in 24 hours (Carley 1976). By the time the men from Fair Haven reached Forest City, about 20 miles away, the danger had passed and they returned home shortly thereafter. Construction on the stockade resumed, and, for at least two weeks, these men slept within the walls at night and worked in the fields during the day. After this short period of uncertainty, roughly around the end of September, the families of Fair Haven began to return to the town (Atwood ca. 1895). According to local historian, Brian Partridge (2005), however, it was the departure of the 12 men (as other accounts say 15) who left for Forest City that actually caused

the Fair Haven stockade to be built, since it left the families of Fair Haven with little protection in their absence. Partridge (2005) states that "those who were left" built the stockade and that women and children were housed here for about three weeks, accompanied by the men who came in from the fields at night.

Tensions during the months of August and September of 1862 were certainly quite high. Atwood (ca. 1895) recalls that Fair Haven civilians encountered no Indians during this time, but three men working in a field heard what they thought were surely the snaps of gun caps in nearby brush. Though they found no one in the bushes, they decided that the Indians' rifles had misfired. This story effectively demonstrates the prevalent, though probably imagined, dangers that fear created during this time. As hostilities cooled with the coming fall, the fort most likely fell into disuse. In 1863 James McGannon was killed, allegedly by a Dakota man, near Fair Haven (Carley 1976, Partridge 2005), and the Block family on the northern edge of the township lost a few horses in a non-violent raid (Atwood ca. 1895). Otherwise, no other major events regarding the U.S.-Dakota War of 1862 occurred near Fair Haven. There is little additional evidence that the fort was used after the initial outbreak of violence and it probably stood no more than a year (Partridge 2005).

The strategy of the settlers at Fair Haven was by no means a unique reaction to this uncertain period, but instead is a prime example of the collective action undertaken at many Minnesota settlements. Thorough research has discovered diary entries, letters, and memoirs that recall similar instances taking place throughout the region. These include the building of a blockhouse at Maine Prairie (Linn 1932), nights spent in the fort constructed at Hutchinson (MacAlmond 1862), references to a fort being built at Sauk Rapids (Wood 1862-1863), and a sod fort built by Scandinavian immigrants near New Sweden (see Figure 1-4) (Nelson 1926).

Settlers at New Ulm, one of the prime targets of the Dakotas' campaign, fortified the town's streets by using "barrels, wagons, and other materials" (Carley 1976:36). In addition to these documents, I also located a diagram of the Sauk Center Military Post (Taylor 1859-1963), which began as a civilian-built stockade of tamarack logs (Carley 1976). These examples not only provide interesting insights into the everyday lives of Minnesotans during this time, but also present important details regarding differences and similarities in construction techniques, methods, and materials of the fortifications. The chief factors regarding the construction of these fortifications included time (or perceived time) available and accessible materials. As such, I would not expect much uniformity among them, though there may be patterns. It may be possible to identify both the variability and any potential patterning of these fortifications by examining their material remains in the archaeological record.

Not only did these stockades and other fortifications, such as those built at Fair Haven and Forest City, stand as concrete examples of the fear and uncertainty present during the 1862 conflict, but also of the shattered ties and relationships between Dakotas and Euro-Americans that had been built since the seventeenth century. Historian Mary Wingerd (2010) explains how Dakota-European bonds were created during the seventeenth and eighteenth century fur trade, and how these relationships were strained more and more as the British and Americans encroached further into Dakota Territory. In the nineteenth century, boundary lines drawn between the Dakota and their rivals, the Ojibwe, caused game populations to flourish along neutral grounds, but quickly vanish near populated areas (Wingerd 2010; Anderson and Woolworth 1988). American traders took advantage of this by placing Indians into a credit system of debt and dependency. The fur trade carried out by white traders and Native Americans alike caused regional overhunting, exacerbating the problem of elusive game. Thus, the Dakota

of Minnesota fell into a downward spiral of dependence and subjection to strong-armed politics by American officials (Wingerd 2010; Berg 2012).

This, simply stated, was the system in place when Native American leaders like Little Crow decided to cede land to the United States in 1858 in exchange for annuity payments. It is important to note, however, that through these prior centuries of contact, relations between the Dakota and whites remained fairly amicable. Unlike tribes such as the Fox, Sac, Ho-Chunk, and others, the Dakota did not actively attempt to prevent the invasion of white settlers in their homeland. On the contrary, even during their annual skirmishes, the Dakota and Ojibwe went out of their way to avoid involving or injuring whites (Wingerd 2010:88).

Although there were certainly constant tensions between the different ethnic groups, these Native peoples rarely attacked white Americans directly. Even when factions of the Dakota did finally lash out against their provocateurs, many took great pains to spare whites that they had prior relationships with. In the first organized Dakota attack on the Redwood Agency in 1862, Little Crow and his men killed no women, children, or mixed-bloods. Other instances of Native Americans sparing, or even helping, white settlers abound, including the stories of Sarah Wakefield (Berg 2012), George H. Spencer (Carley 1976), and many others who were warned or rescued. Despite these heroic efforts, Wingerd (2010:305) explains that, at least to many Dakotas, this event marked the final separation between white Americans and 'true' Dakota. A powerful example of this is the killing of Philander Prescott, who had a Dakota wife and children, and had lived among the Indians for over 40 years. The tale goes that he pled his case to his attackers, only to be met with the reply, "'[w]e would spare your life if we could, but the white man must die; we cannot spare you'" (Wingerd 2010:305). After generations of cultural mingling and cohabitation, it seems the line was finally drawn between Indian and white. This is

an important separation, as it was a distinction present in the whites' eyes as well. On the side of the Euro-American, this schism was manifested materially in the form of physical walls and stockades, built for defense and separation, out of both fear and racial prejudice. Before this time, even military forts in the region, such as Fort Ridgley, were simply a collection of military buildings, with no walls or any other explicitly defensive architecture. It was not until after the conflict that proper defensive stockades were added on to these military outposts (Carley 1976).

Literature Review

When reading the literature on the U.S.-Dakota War of 1862, it becomes strikingly apparent that the Dakota, like whites or any other peoples, were and are made up of individuals, each with differing desires, needs, and opinions. Not only was all-out war a surprise to many of the Dakota, many were adamantly against it. These included, but were not limited to, some Dakota who had taken to Euro-American-style farming and a sedentary life. Some had even given up the religion of their ancestors and chose to practice Christianity, or implemented a mixture of the two. These Dakotas received a fair amount of enmity from some in the traditional camp, with mixed-bloods often being caught in between these two lifestyles and worldviews. Accounts from Dakota people such as Jerome Big Eagle, Joseph Wabasha, and Wowinape (Little Crow's son) shed light on the events that led to the violence and the cultural pressures and conflicts that occurred within and between the various factions of the Dakota (Anderson and Woolworth 1988). It is therefore essential to include and consider statements, accounts, and perspectives not only from the perspective of predominately white historians, but also of the Dakota themselves, who were ultimately affected most by the events that took place both before and after the 1862 conflict. While the archaeological record of a settler fortification remains the

main focus of this study, it is impossible to consider the entire context without first understanding the plight of the Dakotas and what was at stake for each side of the conflict.

Through Dakota Eyes: Narrative Accounts of the Minnesota Indian War of 1862 (Anderson and Woolworth 1988) provides firsthand accounts of Mdewakanton men such as Big Eagle and Wabasha who discuss the causes of the U.S.-Dakota conflict. Big Eagle emphasizes the treaties that were signed and, in general, the restrictions that the U.S. government forced upon the Dakotas. He particularly highlights the 1858 treaty, which sold the northern Minnesota River shore portion of the Dakota reservation, as extremely unpopular with the younger warriors. Because Little Crow was instrumental in this treaty, he received a large amount of animosity from these warriors, who could no longer fight their enemies or hunt, as was their tradition. Importantly, Big Eagle points out that if the Indians made the whites live like they did, the whites would not be happy either. Chief Wabasha, who opposed the 1851 treaty, echoes Big Eagle's sentiments, yet he did what he could to secure decent lands for his people when it became evident that the treaties would be signed. He claims that many of the issues stemmed from the deceptive dealings of traders, which caused much of the tribe's money to transfer directly to white Americans.

Although both Wabasha and Big Eagle speak of real grievances they had with whites, neither of them supported the war, and Wabasha in particular contributed very little to the violence. Although the circumstances of Big Eagle's statements (he was interviewed by a white newspaper reporter in 1894) could certainly have influenced his tone, Big Eagle is not overly harsh concerning the actions of whites, and states that he "knew that there was no good cause for [the war]" (Big Eagle et al. 1988:26). Wabasha declares that as soon as the fighting started he, wanting no part in the war, had the mixed-blood farmer Philander Prescott write a letter and tried

to flee to a nearby white fort, but was afraid of what the other Dakotas might do if he was caught. These interviews effectively illustrate the complexities of the U.S.-Dakota war. Even though these men had issues with the way Dakotas were being treated, they did not think war was the answer and feared what the outcome might be if the situation escalated.

Carley's (1976) *The Dakota War of 1862: Minnesota's Other Civil War* provides a somewhat dated, yet direct overview of the conflict and provided a good starting point and reference for the people and places surrounding the conflict. In addition, Carley's (1976:46-47) map of U.S. military and settlers' forts has proved an invaluable source and remains the most comprehensive graphic depicting the geographical distribution of these fortifications. "Little Crow's War" from *Bury My Heart at Wounded Knee: An Indian History of the American West* (Brown 1970) recounts the events of late summer and early fall in 1862 Minnesota, yet places most focus on the actions of Little Crow and his Dakota followers. Importantly, Brown provides another account of the attacks on Fort Ridgely, New Ulm, and Birch Coulee, as well as mentions of civilian stockades that thwarted Dakota attempts to completely route civilians from the area. In many sources on the conflict the Dakotas are depicted as a faceless, cohesive whole; Brown's work, on the other hand, represents individuals such as Shakopee, Medicine Bottle, Mankato, Little Crow, Wabasha, and others, who often display independent actions and motives.

Wilson's (2004) *Decolonizing the 1862 Death Marches* is a highly passionate take on white-Dakota relations throughout the centuries by a modern-day member of the Dakota tribe. The very title is intentionally worded to conjure images and feelings of the infamous Bataan Death March some American soldiers experienced during World War II. Wilson draws on numerous examples of the horrific conditions that captured Dakotas were subjected to by the United States government and its citizens. She claims that there were no true "friendships"

between whites and Dakotas during the nineteenth century (Wilson 2004:207); if whites were truly friends to the Indians, she suggests, they would not continue to live on Dakota land and expect them to conform to a Western way of life. Furthermore, Wilson portrays those Dakotas who did not fight in 1862 as traitors to the cause who betrayed Little Crow and the rest of their people. Clearly, Wilson has a vastly different perspective than some other writers concerning the past and present plight of the Dakotas, one rooted in an anti-colonialist and decolonizing scholarship. From this perspective, the complex and varied viewpoints of the Dakotas demonstrated by other commentaries are a result of the negative influences that whites brought when they invaded the region.

Anderson's (1988) work on Taoyeteduta, or Little Crow, offers an additional perspective of the Dakota in its in-depth portrayal of the Mdewakanton leader's life. In general, Anderson describes the chief as a thoughtful, calculating politician, who coordinated strategic marriages with daughters of other chiefs, forming alliances through new bonds of kinship. Little Crow, possibly more than any other Dakota, sought compromises with U.S. government agents and was noted as the first to sign the 1851 Treaty of Mendota, though he feared his warriors might shoot him for doing so. Little Crow was faced with the problem of appeasing both the American government officials and his own warriors, and Anderson gives special attention to this subject. This eventually leads to a clearer understanding of the intricate politics that occurred within Dakota tribes and demonstrates how Dakotas did not all have the same interests and goals in mind.

Although the clash of two such different peoples that occurred in 1862 Minnesota seems to be an ever-present truth, it was not always so. In *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815* Richard White (1991) details how, in many

cases, Native American and European cultures overlapped and mixed, leading to long-lasting kinships, both real and fictive. With the advent of the American Revolutionary War and the formation of the United States, however, a new expansionist power meant that the Indian tribes were once again painted as the "other." From this point on, a new pattern of U.S. westward expansion and friction between white settlers and Native American tribes emerged, often resulting in conflict and the building of civilian defensive works. This cycle repeated almost as often as frontier lines moved. Tveskov and Cohen's (2014) piece discusses how the Oregon military Fort Lane was viewed by both American Indians and white settlers alike and how the idea of the fort and what it represented in American mythology changed over time. In Fort Lane's case, the military presence was divided as the US government struggled to keep the peace between whites and Indians, as generally neither were satisfied with policies in the region.

Wingerd's (2010) *North Country: The Making of Minnesota* places Dakota history within the surrounding context of Ojibwe migrations, French and British trade, and other contemporary events of the past 400 years. Wingerd describes the seventeenth century Dakota contact with Europeans and how it immediately benefitted both parties. As with White's work, Wingerd explains how mutually beneficial experiences led to some crossover, manifested both culturally and through mixed (or *métis*) offspring. Furthermore, Wingerd explains that, contrary to popular views, Dakotas and Ojibwas were historical allies just as often as they were enemies. Diplomatically, the Dakota used intermarriage to establish kinship with Ojibwas and whites alike, which led to more blood ties and relationships. Contrary to many other sources, especially those that emphasize Dakota warfare, Wingerd illuminates how they have always been much more complex than a simple warrior culture. Furthermore, her work highlights many mutual benefits that Dakotas and whites received by living and working near one another, such as trade

and cultural exchanges. This perspective may call to question some of Wilson's (2004) claims that there were no friendships between whites and Dakotas, as Wingerd certainly describes a fair measure of mixing that was looked upon favorably by both peoples.

Westerman and White's (2012) *Mni Sota Makoce: The Land of the Dakota* also covers the span of Minnesota's history, though from a distinctly Dakota point of view. In it, they discuss the land and its permanent importance to the Dakota and how every instance, from Dakota origin stories to their homes and lifeways, revolve around it. The authors therefore argue that since the time that Dakotas were exiled from the land, they as a people have been working and fighting to regain what is and always has been rightfully theirs, staying or traveling back 'illegally,' establishing their own reservations and, in the modern day, becoming activists for increased tribal sovereignty. Unlike the other sources, *Mni Sota Makoce* is not most concerned with specific people, politics, or other interactions—though it does contain all of those as well. It instead emphasizes the cultural bond that the Dakota people have with the land here, and how it is the most important aspect of what makes one Dakota.

Two works that provided reference information on historical forts themselves were Field's *Forts of the American Frontier 1820-91: Central and Northern Plains* (2005) and Barnes's *Forts of the Northern Plains: Guide to Historic Military Posts of the Plains Indian Wars* (2008). These sources detail several military forts in the region, fort types and defensive elements, life on frontier forts, and more. Especially pertinent here are the basic outlines and materials of military-grade forts and the reminder that defensive fortifications on frontier encampments remained rare until conflicts with Native tribes arose in the mid to late nineteenth century.

Archaeologically, my sources include the following: Anfinson's (2005) *SHPO Manual for Archaeological Projects in Minnesota* (2005) as guidance for Minnesota archaeological testing; O'Malley's *Stockading Up* (1994) and Smith's (2000) "Bledsoe Station" article from *Tennessee Historical Quarterly* as references on previous archaeological investigations of civilian fortifications across the country; and, finally, examples of frontier forts, both military and civilian-made, in Babits and Gandulla's (2013) *The Archaeology of French and Indian Frontier War Frontier Forts*. Not only do these provide important insights regarding excavation techniques of such sites, but they link the U.S.-Dakota War of 1862 to a broader picture of white encroachment (Manifest Destiny) and varying Native American reactions to it.

Though set chronologically earlier, Babits and Gandulla (2013) detail important archaeological observations on mid to late eighteenth century forts built on the frontier. Fort Fair Haven shares several conditional aspects with these constructs, namely a lack of resources, similar time constraints, and the imposing threat of attack by Native American tribes. With these aspects being considered, the 100 years that separates the two periods probably has little bearing on the physical difference in shape or layout of the forts. Furthermore, Edwards's Fort in Capon Bridge, West Virginia (Babits and Gandulla 2013:139-157) was constructed by a civilian. Archaeological aspects of this fort such as stockade structure and post positioning may very well hold some interesting parallels with Fort Fair Haven. Nancy O'Malley's (1994) work on eighteenth century Kentucky civilian "stations" demonstrates similar phenomena at an earlier date. She reports that many of these frontier stations took the form of fortified log cabins, wooden stockades, and/or cleared areas, all conditions that Fort Fair Haven may well have shared. These stations stood for an average of five years; though longer lasting than most U.S.-Dakota War of 1862 settlers' forts, they too were deconstructed when the need for defensive

works had passed, and therefore shared the sometimes difficult to determine archaeological signs found at Fair Haven. Also important are the National Register for Historic Places (NRHP) registration forms for the Fort Juelson (2013) and Pipe Lake Fort (1990) sites, which I have also reviewed. These provide comparative examples of other nearby forts of the period, though their walls and other defensive works were constructed with sod instead of wood.

Also included in my bibliography are the Minnesota Department of Transportation's *Historic Context of Minnesota Farms 1820-1960* (Granger 2005) and *Historical Archaeology of Minnesota Farmsteads* (Terrell 2006). With as little information as we had on the fort prior to the excavation, we were careful not to assume that the previously found features belonged to the fort's stockade and were not instead remnants of another type of structure. If, upon further investigation, these features did not appear to belong to a fortification, these sources would provide crucial information to determine what type of domestic feature it could have been, such as that of a fence line or corral.

On the other hand, in the event that the features did seem to be some form of defensive work, a source I considered crucial to further research was Dennis Mahan's (1862) *A Treatise on Field Fortification, Containing Instructions on the Methods of Laying Out, Constructing, Defending, and attacking Intrenchments [sic]; with the General Outlines also of the Arrangement, the Attack and Defence* [sic] *of Permanent Fortifications.* This is the fourth edition of the treatise, which describes proper methods for constructing military defensive fortifications. Furthermore, *From These Honored Dead: Historical Archaeology of the American Civil War* (Geier et al. 2014) provides archaeological examples of contemporary, military-constructed forts, many of which directly adhere to Mahan's guidelines. Especially relevant here is the archaeological investigation of Fort Putnam in Camp Nelson (McBride et al. 2014). Discussion

of these comparative structures will be continued in more detail below, but, briefly stated, these sources provide apt contrasts between what we would expect from a military-grade fort of the period and what we actually uncovered at the civilian-constructed Fort Fair Haven. More details on these sources will be deliberated later, when they are applied directly to the archaeological implications of Fort Fair Haven's findings.

Chapter II: Archaeological Excavation

Project Background

Dr. Rob Mann of St. Cloud State University began researching the Fort Fair Haven site in early 2015. During his study, he discovered the work of Brian Partridge (2005) and Vince Botz (2014), which led him to an 1896 Fair Haven plat map that suggested the location of the fort (Figure 2-1). Fair Haven, Minnesota itself is a village located in southeastern Stearns county, within Section 4, Township 121N, and Range 28W on the South Haven, Minnesota 1974 quadrangle map, and rests on what is classified as an outwash plain landform. Upon further investigation, the site was found to be located on lot 12 of block 45 of the 1896 plat map, where the hotel was said to have been located (Partridge 2005). Although some sources claimed that the log building was first used as a tavern (Atwood and Dervory ca. 1915), others indicated that the fort was built around a log hotel (Atwood ca. 1895; Vye 1927). Today the lot is private property situated at the intersection of 49th Ave. and 136th St. Helping to confirm that this lot was the one historically identified as the fort's location, the property was marked with a wooden sign commemorating the fort.

In July 2015 Dr. Mann and I performed a geophysical and shovel test survey of the Fort Fair Haven site. The project was partially funded by a Minnesota Historical and Heritage grant from the Minnesota Historical Society (MHS). Archaeologist Megan Stroh, of the Sanford Museum in Iowa, was hired to perform a gradiometer survey to locate magnetic anomalies or disturbed soils related to the presence of the fort (Stroh 2015). Though the results were a bit ambiguous, we placed a total of seven 40 x 40 cm shovel test pits (STPs), dug in natural levels with arbitrary 10 cm breaks, over various anomalies identified by the gradiometer (see Figure

Figure 2-1. C.M. Foote & Co. 1896 Plat Map of Fair Haven, John R. Borchert Map Library, University of Minnesota.

2-2). The stratigraphy in the STPs revealed the presence of a series of buried A horizons (three in STP 4 and two in STP 6), each underneath episodes of culturally sterile fill (Figure 2-3). Because of this, the subsoil in most STPs was reached between ca. 75 and 90 centimeters below surface (cmbs). All soil was dry-screened through ¼ inch mesh. Artifacts recovered from the modern A horizon and the uppermost buried A horizons were predominately twentieth century and included modern amber vessel glass (e.g. beer bottle glass), crown bottle caps, and wire nails. Within the lowest buried A horizon, however, nineteenth century artifacts were uncovered, including ironstone ceramics, machine-cut square nails, and aqua vessel glass. This observation demonstrates that the artifacts became older as deeper levels were excavated (Figure 2-3). In STP 3 a large fire-tempered, square-cut spike was found at 80 cmbs, construction hardware that would have been used in affixing larger structural members together. The presence of this spike may indicate its use in the construction of fort posts and beams, and the fire-altered nature of this particular spike may suggest the wood in which it was driven was burned. All artifacts were bagged, labelled, washed and catalogued in the lab at St. Cloud State University.

At the junction of the lowest buried A horizon and the subsoil in the base of STP 1, a possible feature was discovered, mapped, and photographed. Its slightly amorphous design suggests possible bioturbation, though it was important to keep under consideration until a wider window was excavated and its full shape could be ascertained. Likewise, possible trench and post features (e.g., post molds and possible post holes) were found at the interface of the lowest buried A horizon and the subsoil in the bases of STP 4 and STP 6. These features were also mapped and photographed (Figures 2-4 and 2-5 and Table 2-1). The presence of these features strongly suggested a structure of some sort, presumably the fort stockade, was located on the site.

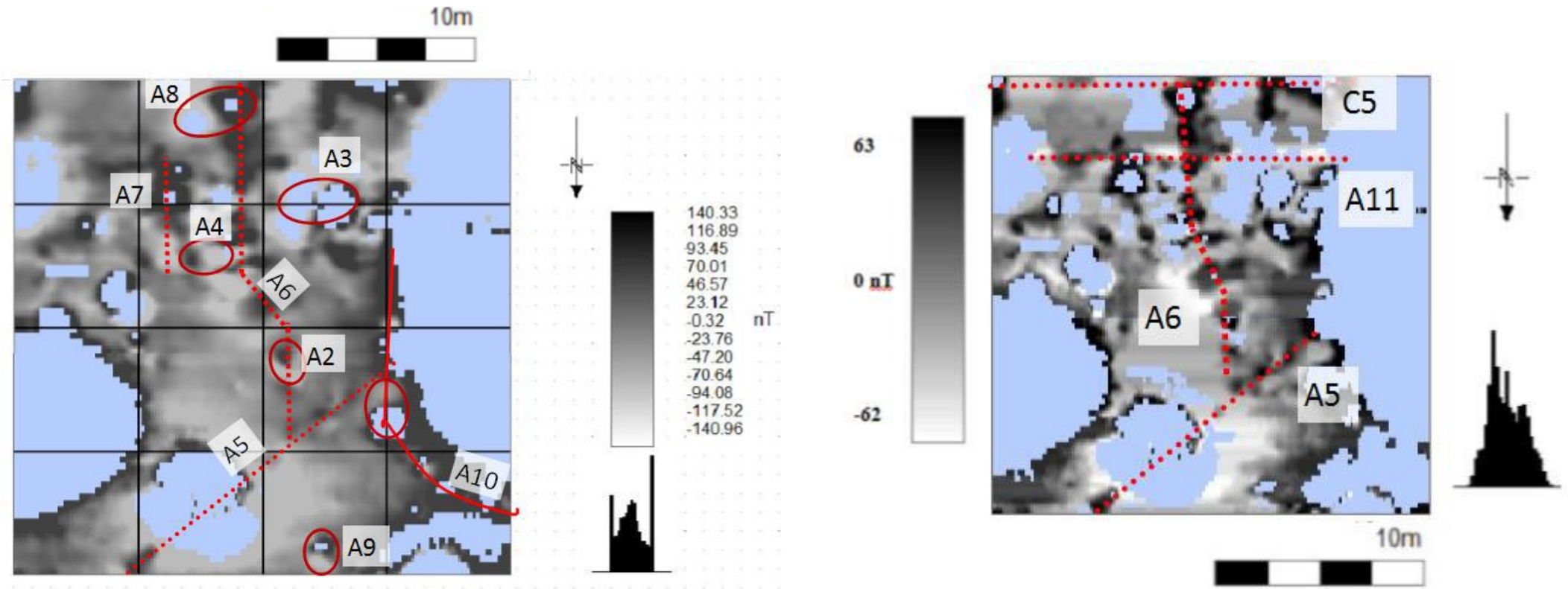


Figure 2-2. Interpretive map of strong magnetic features (left) and weak magnetic features (right) in Grid A (See Table 2-1) (Stroh 2015).

However, more evidence was needed in order to confirm that these features are part of a fortification.

Feature ID	Anomaly Type	High (nT)	Low (nT)	Shape	Interpretation
A1*	Dipole			Oval	Section of utility line A10
A2*	Dipole			Oval	Metal object, may also be related to linear feature A6
A3*	Dipole			Oval	Metal object
A4*	Dipole			Oval	Metal object
A5*	Monopole	65.84	-38	Linear	Trench or ditch
A6*	Dipole	84.96	-56.57	Linear	Trench or ditch
A7*	Dipole			Linear	Linear concentration of metal objects
A8*	Dipole			Oval	Metal object
A9*	Dipole			Oval	Metal object
A10	Dipole	204.7	-110.5	Linear	Utility Line
A11	Monopole	2.11	-58.13	Linear	Trench or ditch

Table 2-1. Gradiometer Survey Anomalies. *Indicates a feature that was flagged during the gradiometer survey for ground truthing (Stroh 2015).

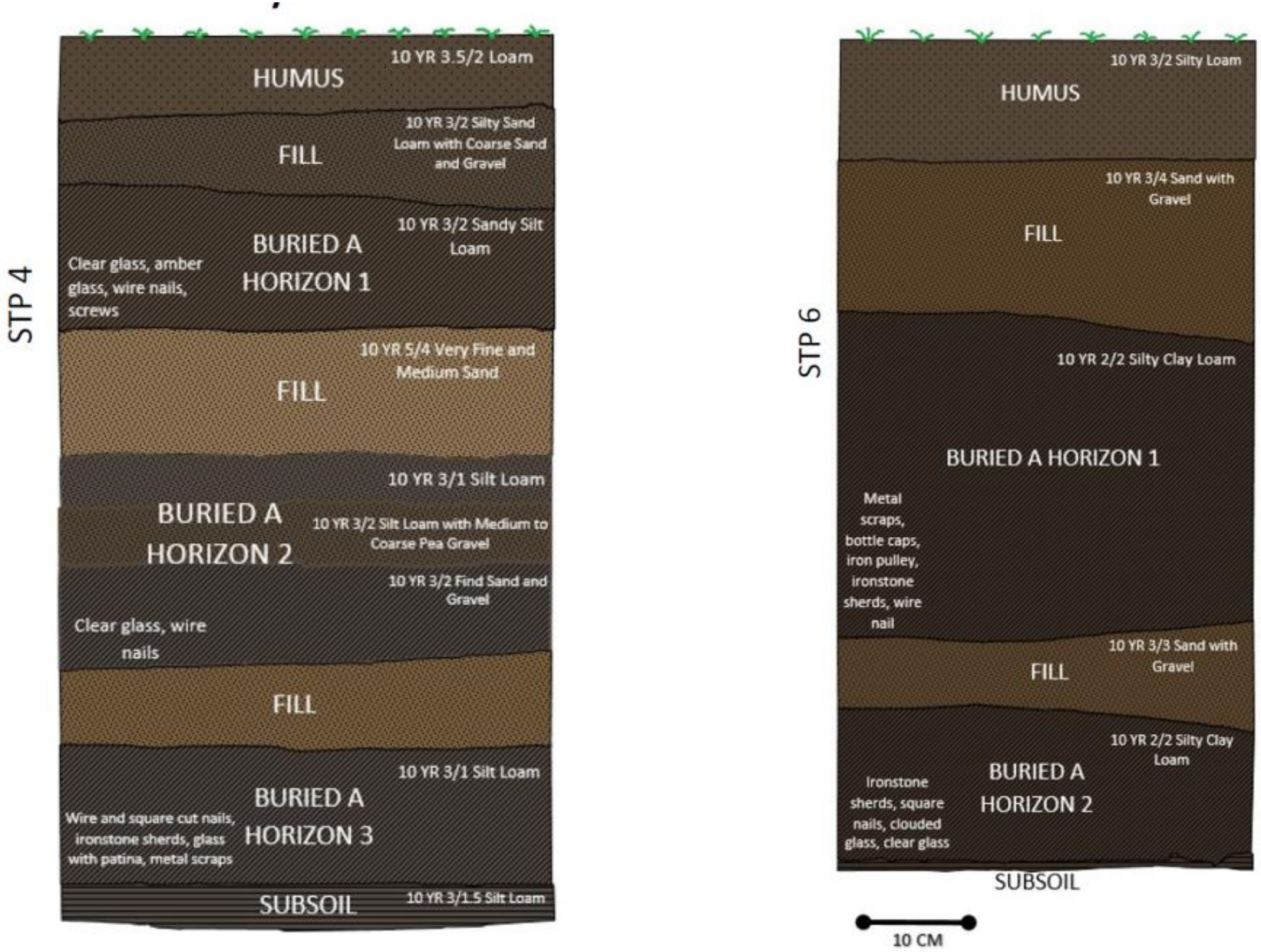


Figure 2-3. 2015 shovel test pits 4 and 6.

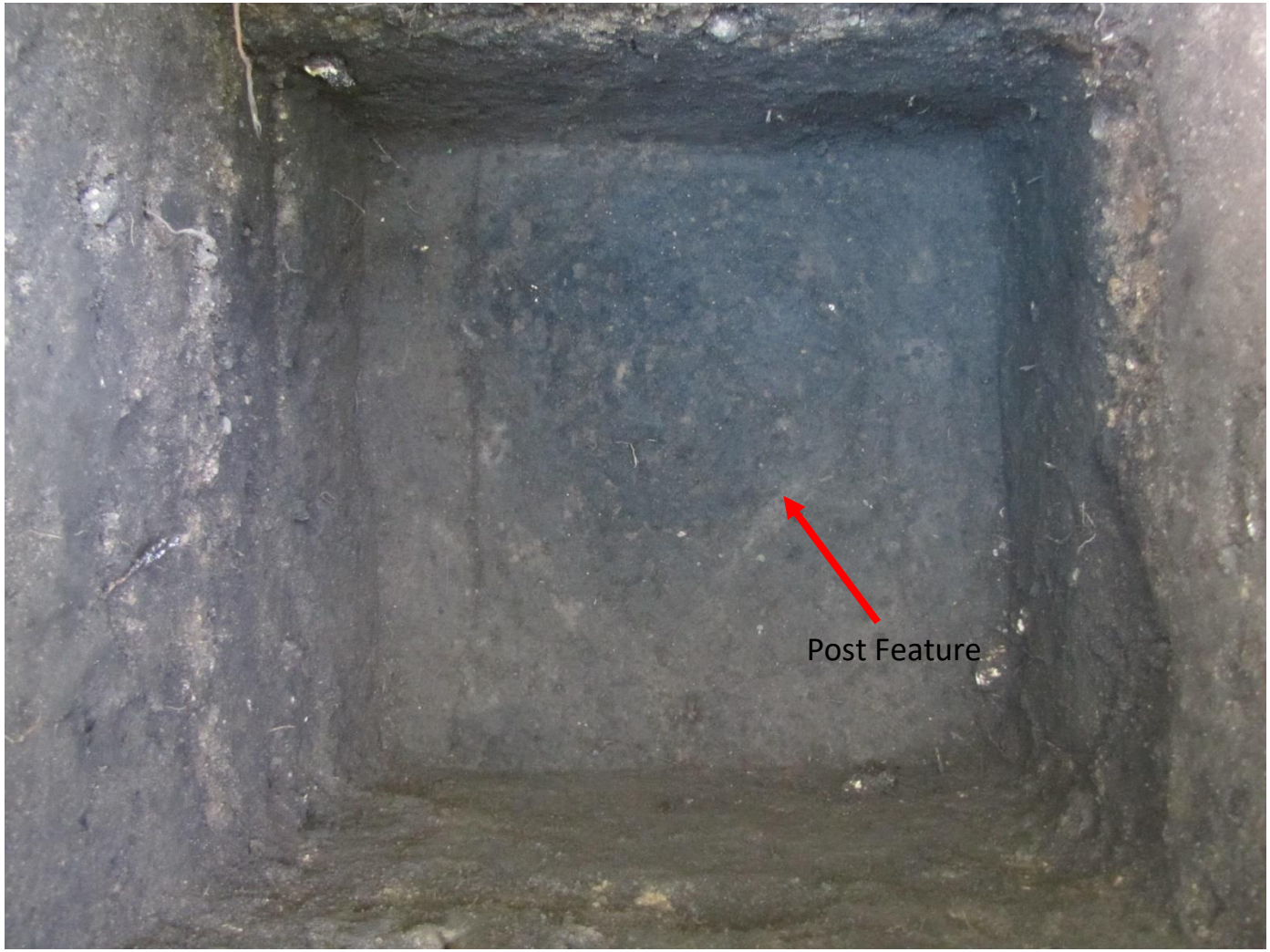


Figure 2-4. Shovel test pit 4 with post feature at base (subsoil).

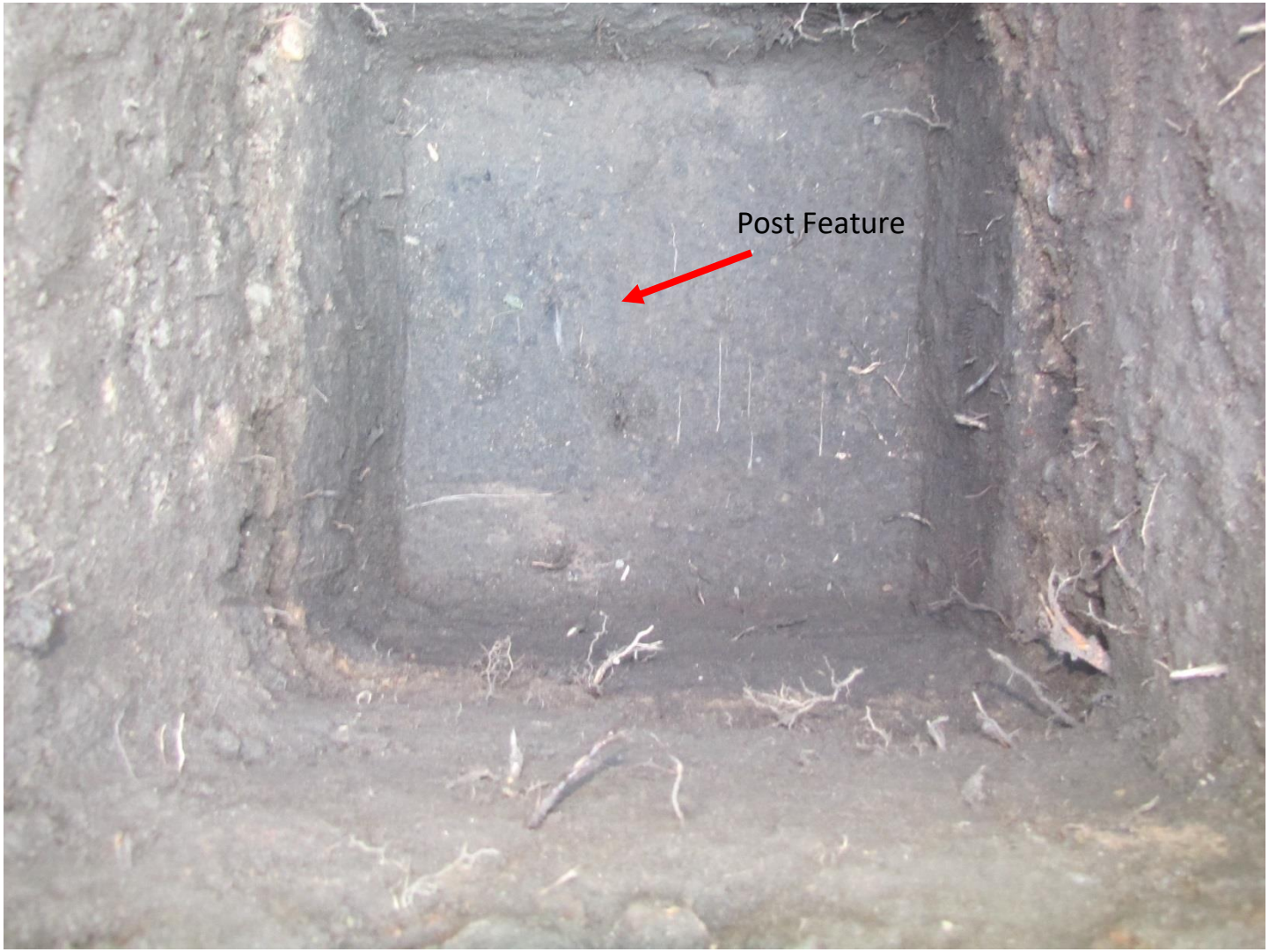


Figure 2-5. Shovel test pit 6 with post feature at base (subsoil).

Linear features such as stockade trenches, post holes, and post molds were the main archaeological feature data we were attempting to locate, as they could potentially indicate the presence of a defensive wall. Because the fort was constructed by rushed civilians with little or no military experience, it was difficult to guess the style and shape that the stockade would take, especially as descriptions only state that the wall "surrounded" the log building (Atwood ca. 1895; Vye 1927). The Bledsoe Station site in Tennessee, which included a late eighteenth century frontier defensive work built by civilians, provides one example as to what could be looked for archaeologically. Smith (2000) describes the posts as closely spaced in a narrow trench, as opposed to individual holes being dug for each. These posts were then "apparently tamped down sufficiently to leave shallow impressions ranging from 0.5-1.5 inches deep in the base of the trench" (Smith 2000:180). Importantly, he points out that, unlike modern reconstructions of such stations that consist of uniform timbers, the archaeological evidence points more toward a "haphazard and probably remarkably untidy looking wall" (Smith 2000:180). Laborers apparently used split logs and covered any spaces with various sizes of posts. As Smith describes, all of this evidence points to a hastily built wall, using any materials available. This observation is quite comparable to descriptions of the 1862 Minnesota frontier forts, as house and barn logs, fence rails, barn and bridge timbers were found, borrowed, and even taken without permission to construct defensive works (Linn 1932). Because at least two post features were identified in a nineteenth century context at the site, we made the decision to return the following summer in order to further investigate within a broader excavation.

Research Questions

As Swanson (2011:286) explains, "[e]xploring the history of the [U.S.-Dakota War], its causes, and its aftermath are fundamental to understanding Minnesota today." If we can successfully identify Fort Fair Haven, then we may also gather important details regarding its construction, appearance, and use—specifically as to how reliable of a defense it would have provided in the event of an attack. By gaining a better understanding of these fortified settlements we will be able to discern their construction, intended use, and permanence, which will in turn provide a more accurate representation of Minnesota life during the U. S.-Dakota War of 1862. Accurately recording the material signatures of such fortifications will also shed light on the enmity and fear that divided two groups of people at this time, as the forts themselves represent the physical manifestation of a breach in social relations.

As there were at least 50 of these civilian forts, none of which still stand today, my research will provide important information concerning their construction techniques, as well as insight regarding the intended versus actual function. First, and most simply, we must answer whether the fort did, in fact, stand where we conducted a gradiometer and shovel test survey in the village of Fair Haven in the summer of 2015. If this can be confirmed, there are several additional questions that our test excavations may be able to answer:

- What kind of structure, or design, does this fort possess (i.e. straight walls with corners, a circular wall, bastions, etc.)?
    - If the fort's structure can be ascertained, does it bear any resemblance to, or show any evidence that its construction was influenced by U.S. military forts of the period? Depending on the results of our excavations, this last

question may prove the toughest to answer, though Mahan's (1862) *Treatise on Defensive Fortifications…* will prove an invaluable source.

- Was Fort Fair Haven a formidable defensive structure capable of withstanding an assault by the Dakota (à la the Forest City fort)?
    - Or was it a "fort" in name only; something hastily constructed for peace of mind, but possessing few of the material attributes that would have provided actual security to its occupants?

Whether the civilians at Fair Haven realized it or not, they had set up a defensive situation similar to Mahan's (1862) style of a blockhouse with a stockade. In his *Treatise on Field Fortification*…, he states that "[a] *block-house, surrounded by a defensive stoccade* [sic], is impregnable to the attack of infantry if properly defended, and is therefore peculiarly suitable to either *wooded* or mountainous positions…" (emphasis added). In Fair Haven's case, the log structure would act as the blockhouse; it may not have been originally built as such, but the thick walls offered by the logs would offer similar protection to another "bulletproof" blockhouse described by Linn (1932). In addition, this style of defense suits Fair Haven's geography, as Atwood (ca. 1895) writes that the town was surrounded by brush, timber, and ravines. Mahan's *Treatise* (1862) also contains very specific instructions for how a stockade was to be constructed:

> The trunks for the stoccade [sic]…should be ten or twelve inches in diameter, and eleven feet in length. It will be best to square them on two sides, so that they may have about four inches of surface in contact. The top of the stockade should be at least eight feet above the ground. To arrange it for defence [sic], a banquette is thrown up against it on

> the interior; the height of the banquette one foot nine inches. A strip, about two feet in length, should be cut from the top of two adjacent trunks, with a saw, so that when they are placed side by side there shall be an opening at top, between them, eight inches wide on the interior, and two and a half inches on the exterior; this opening, through which the muzzle of the musket is run out, in firing, is termed a *loop-hole*. The distance between the loop-holes should be three feet. (Mahan 1862:60-61)

Mahan describes a *banquette* as "a small terrace on which the soldier stands to deliver his fire; the top of it is denominated the *tread*, and the inclined plan by which it is ascended the *slope*" (Mahan 1862:3; emphasis in original). Also, in a proper military stockade fortification, a ditch twelve feet wide and three feet deep should be dug four feet from the exterior of the wall (Mahan 1862:61).

Another possible defensive element related to the construction of a military-style stockade is the bastion. Bastions are projections from the wall of a fortification which are intended to reduce "blind spots" in the defensive line of fire. The 1863 military sod fort at Pipe Lake had two bastions, though made of earth, not timber (National Register of Historic Places 1990). Mahan describes them as one of the best types of defensive works, though, due to the time and resources required, building a proper military bastion fort should only be reserved for the most strategic locations (Mahan 1862). This, however, does not mean that Fort Fair Haven did not possess some type of appendage that stood out from the rest of the stockade to provide strategic angles of fire or enfilade. Bastions will certainly be considered and looked for in the field by discerning the pattern of post features wherever possible.

Although archaeological excavation may not be able to discern the details of a stockade above the ground, there should be sufficient evidence to determine the average diameter of the posts, how deeply they were sunk into the ground, how far apart they were placed, as well as the overall shape of the stockade line. Sources from other forts of this period, both civilian and military, describe the posts as being sunk two to three feet into the ground (Howard 1931; Linn 1932, Hart 1845-1927, Mahan 1862), aspects that were carefully considered when the research design was drafted.

If the presence of a fort stockade can indeed be identified, comparing the finds to standardized, military fortifications may shed light on how realistically functional the fort would have been in the case of an attack. Was the Fair Haven stockade sturdy and well-constructed for a solid defense, or a flimsy barricade that would merely slow attackers in their approach? These answers will provide clues to the level of organization that was involved with the construction of Fort Fair Haven, and will also give a basis of comparison to any other settlers' forts found in the future.

Proposed Excavation

Based on the geophysical and shovel test survey from 2015, we decided to return to the site during the summer of 2016 in order to expose a larger area around the possible post features. Because the relevant nineteenth century cultural features were found at least 70 cm below the modern ground surface, mechanical stripping was considered necessary to remove approximately 50 cm of overburden on a 10 x 10 meter grid surrounding STPs 4 and 6, which contained the post features. This would be accomplished through the use of a backhoe with a smooth-bladed bucket. After this was accomplished, we planned to place two 2 x 2 meter blocks (equivalent to

eight 1 x 1 meter units) over positive STPs 4 and 6 to open larger-sized windows to the subsoil where our 2015 features were located (see Appendix B for proposal maps). This decision sprang from the need to begin with what areas we had previously excavated and gradually work in new directions. A remaining seven or eight 1 x 1 meter units were reserved to follow any linear features discovered from these initial two blocks and were to be judgmentally placed. The overall intent was to reveal as much or as many of the features as possible throughout the three to four weeks we had in order to draw conclusions about the fort's orientation, design, and function, given that it was there at all. Other defensive elements mentioned by Mahan (1862) were also considered, including an exterior ditch and interior banquette.

A plan view of each unit level was to be cleanly troweled, mapped, and photographed, and at least one vertical wall of each unit was also to be photographed and mapped in profile. In addition, each feature encounter was to be cleaned, mapped, and photographed; when subsoil was reached, it was also to be completely troweled clean to reveal any possible features. If features were encountered, a select few of them were to be bisected and mapped and photographed in profile in order to test them against Mahan's (1862) descriptions of a proper stockade. All excavated soils were to be screened through ¼ inch mesh, and all artifacts collected were to be transported back to St. Cloud State University archaeological lab to be cleaned, identified, cataloged, labeled, and stored. Any on-site changes to this proposed research design are outlined below.

Summer 2016 Excavation

The 2016 archaeological excavation of the Fort Fair Haven site took place in June 2016. The project was led by Dr. Rob Mann, and assisted by SCSU graduate students Jake Dupre and

Christiana Peach. Once more the project was partially funded by a MHS Minnesota Historical and Heritage grant. Additionally, the excavations were conducted as part of the 2016 St. Cloud State archaeological field school. Undergraduate students Sammi Anderson, Alisah Bethel, Jonathan Corbin, Caleb Frauendienst, Dwight Godding, Bridget Healy, Christina Huling, Mathew Norton, Liz Pawelk, Derrick Rambow, Ashley Sargent, Joseph Schneider, and Daniel Williams provided the bulk of the labor for the project as they learned the basic methods of archaeological excavation.

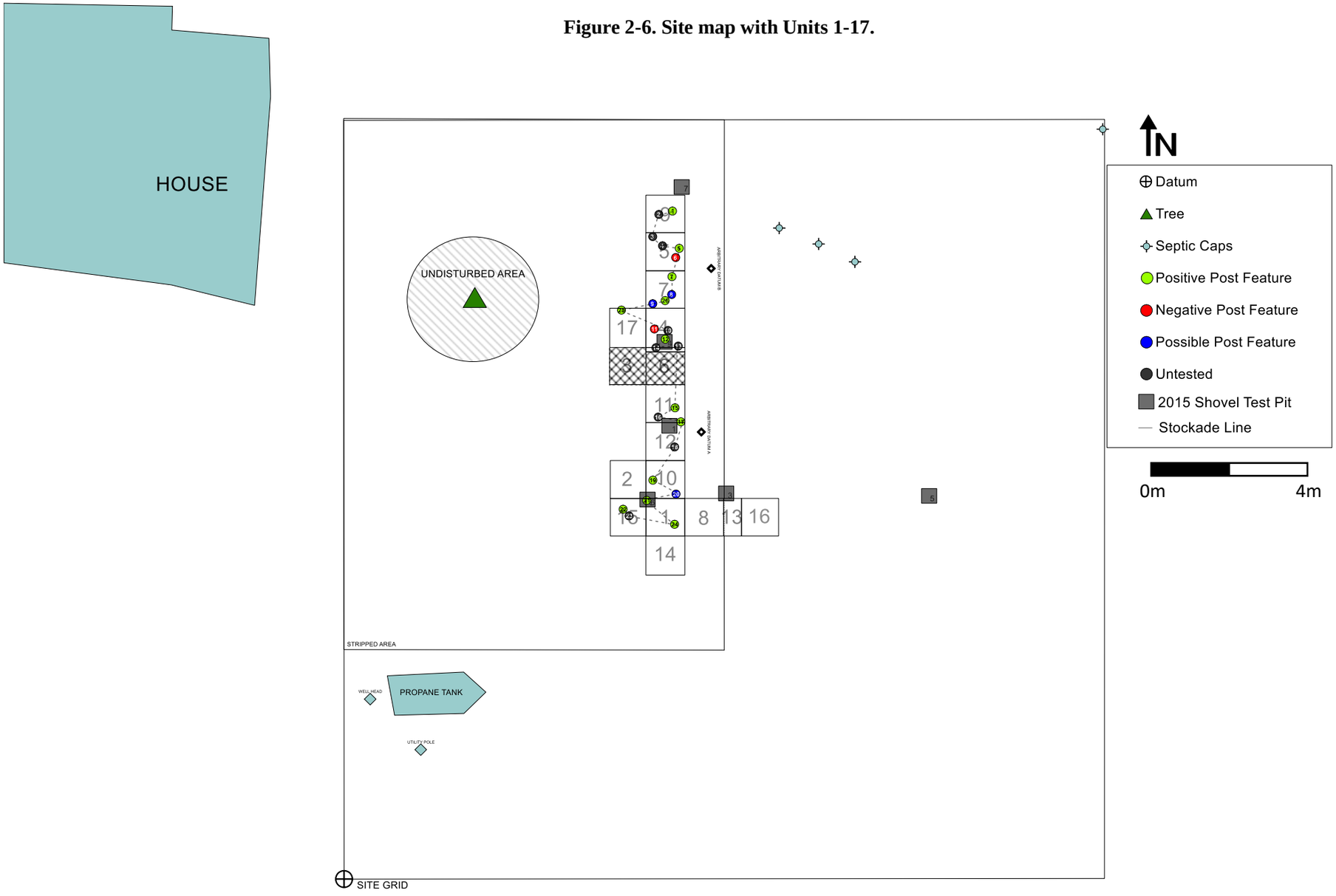
The proposed 10 x 10 meter grid surrounding the features located during the shovel test survey was expanded to 10 x 14 in order to make the most use of the available landscape. Using the backhoe coupled with a half day of field school "shovel-schnitting," approximately 50 cm were stripped off the surface, which greatly expedited the excavation that followed. When considering the prospect of following fairly unpredictable features, this method was all the more necessary. Removing the top 50 cm of the overburden was meant to allow the excavation units to be dug through only one layer of fill, and the stratigraphically lowest buried A- horizon. Due to normal inconsistencies in the stripping process, some units still had to be excavated through several layers before reaching subsoil. Nevertheless, stripping to this depth was shallow enough so as not to endanger the nineteenth century layers, most of which rested below at least 70 cmbs. The Minnesota SHPO guidelines in respect to the use of heavy machinery were followed at all times (Anfinson 2005).

As Anfinson (2005) also describes, the *minimum* size of test units for archaeological testing is usually one meter square. After re-establishing the datum set in 2015, two 2 x 2 meter blocks (eight 1 x 1 meter units), which encompassed shovel test pits four and six, were laid in via total station. This decision was based on the need to begin with what was previously found,

working out from there in order to follow any linear features. For this reason, approximately another eight 1 x 1 meter units were to be held in reserve to provide flexibility when following any newly discovered features. Ideally, this would provide us with the best chance to catch the overall design of the possible stockade wall, as well as additional features such as the interior banquette and exterior ditch (if either existed). In this way, a total of 16 and a half 1 x 1 meter units were dug.

Two arbitrary datums (A and B) were established 10 cm above the ground surface of the excavation site. These were referred to for unit depth measurements throughout the majority of the excavation. The initial units (Units 1-4, see Figure 2-6) were excavated in natural layers, starting and stopping with each new stratigraphic layer, with arbitrary breaks every 10 cm. Unit 5 and all subsequent units were excavated in natural layers, as we had at that point gained a good grasp on the surrounding soil stratigraphy. All matrix from the initial four units was dry-screened through ¼-inch mesh hardware cloth, and artifacts collected were placed into labelled plastic bags accordingly. After the second day of excavating Unit 3 we decided to close it out, as it was showing none of the clear stratigraphic levels of the others and consisted almost entirely of a lighter, sand and gravel fill matrix down to a depth of approximately 60 centimeters below datum (cmbd). Similar fill matrix was also discovered in a portion of the adjacent Unit 6, and only a northern section was excavated down to subsoil. These two units were determined to be greatly disturbed, most likely by the excavation and infilling of a septic system. Otherwise, the remaining 14 and a half units were excavated down to subsoil. Possible post features 21 and 24 were discovered at the base of Unit 1, and possible post features 10, 11, and 13 were identified at the base of Unit 4. Based on these data, we excavated Units 5, 7, and 9 to the north of Unit 4 and Units 10, 11, and 12, between Units 1 and 4, as well as Unit 14 just south of Unit 1. With the

Figure 2-6. Site map with Units 1-17.



exception of Unit 14, additional post-like features were identified at subsoil in each of these new units.

Beginning with Units 7, 8, and 9, the first two levels (being the modern buried A horizon (1Ab) and fill (HTM 2) layers) were not screened. This decision was made to increase efficiency, as these higher layers contained twentieth century artifacts such as crown bottle caps and modern bottle glass, of which we had already collected large amounts, making this data redundant. This strata is almost certainly associated with the twentieth century bar that was located on the lot. As more units reached subsoil and we defined and identified additional possible post features, two important things became clear: first that these features followed a rough north-south linear pattern that angled westward in Unit 15, and secondly that they were either staggered or in two separate rows. More will be discussed on these patterns below.

In addition, a possible human-made feature (e.g. a trench) was discovered on the east edge of Unit 1, prompting the excavation of an additional two and a half units (units 8, 13, and 16) (see Figure 2-7). The topography here began to slope downward to the east, and though we initially interpreted the farther depth to subsoil in these units as a feature, it appears more likely that this eastward slope was natural due to its gentle angle (see Figure 3-3 in Chapter 3). Units 14 and 17 were added to the south and west of the linear pattern of features, largely in order to further verify presence or absence of any additional post features in these areas. No features were found in Unit 14, and only one (Feature 25) was discovered in Unit 17, which will be discussed further in subsequent chapters. On June 23, the last day of the excavation, a previously unnoticed post (Feature 26) was defined while bisecting Post 8. Within the post mold of Feature 26 was an intact fragment of the *in situ* wooden post. It was mapped, photographed and carefully excavated for later analysis in the lab. A total of 26 possible post features was discovered, and 16 of these

were bisected (see Table 3-2 in Chapter 3). These post features will be analyzed in more detail in Chapter 3.

At least one wall of each unit was mapped and photographed, and the base of each level was also photographed and mapped as appropriate. Likewise, each bisected possible post feature was photographed and mapped. Soils were described by color (Munsell), texture, and structure. Other field documentation included daily note-taking, as well as field specimen and photograph logs. Later analysis and identification of artifacts took place at the St. Cloud State University Archaeology Laboratory. Here the collected artifacts were washed, sorted, inventoried, and cataloged.

Figure 2-7. Flagged post-like features. Units left to right, top to bottom: 8, 12, 10, 1, 14, 2, 15. Unit 8 was bisected in order to detect overall extent of subsoil elevation changes.

Chapter III: Results

The summer 2016 excavations uncovered and documented a number of possible post features and recovered a collection of nineteenth and twentieth century artifacts. These results are used here to confirm the 1862 fort's location through the combined analysis of the *in situ* possible post features and diagnostic nineteenth century artifacts. Although the scope of our excavations was limited by available time and space, we did unearth what we believe to be the east wall of the fort, as well as a possible southeastern turn to the stockade.

Stratigraphy

According to the USDA soil report for the Fair Haven area, the general soil is predominately loam, with 0 to 2 percent slopes. The landform setting is classified as outwash plains. A typical profile consists of the following: an Ap horizon (plowzone) of loam from 0 to 15 inches (0 to 38.1 cm); a Bw horizon (subsoil) of loam from 15 to 30 inches (38.1 to 76.2 cm); and a 2BC horizon (parent material) of coarse sand from 30 to 60 inches (76.2 to 152.4 cm).

Because of the extensive human modification that the site has undergone, it is not surprising that the soils at the Fort Fair Haven site differs from the soil report. As per the 2015 shovel test pit profiles and our 2016 unit profiles, the general stratigraphy of the site consists of a surface A horizon (A), an episode of fill or human-transported material (HTM1), a buried A horizon (1Ab), another episode of fill (HTM2), and a second buried A horizon (2Ab) before subsoil is reached (Figure 3-1). Although we originally identified an additional buried A horizon in STP 4 from 2015, it appears that this interpretation was mistakenly made due to the test pit's depth and the narrow viewing window into its profile. According to local knowledge, at least one of these fill episodes was likely created by a driveway that looped around the backyard to allow

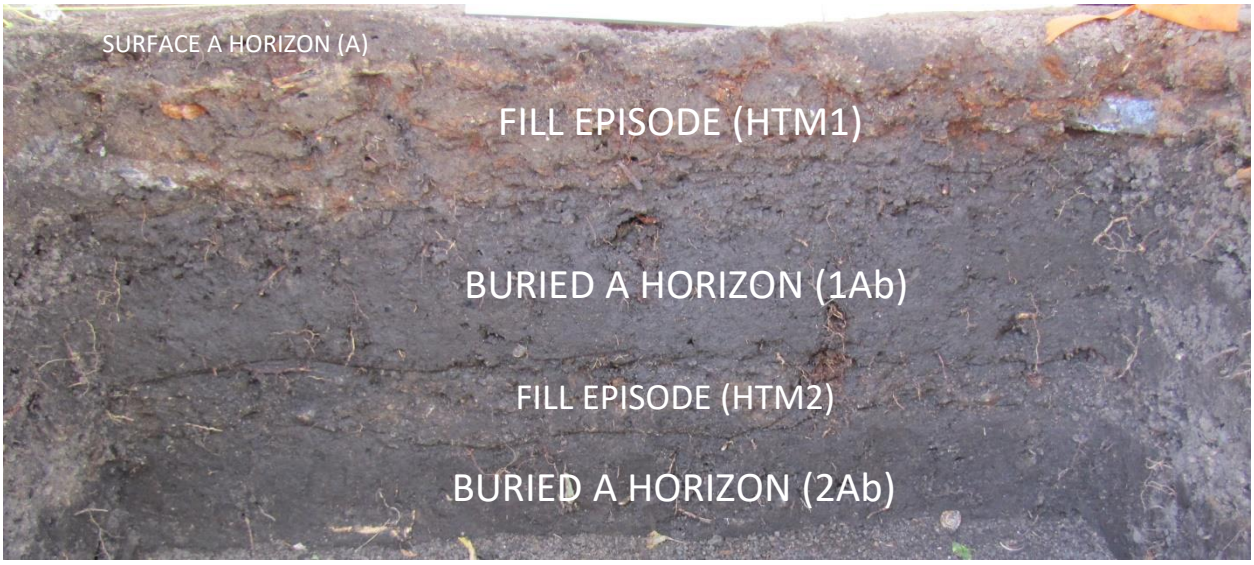


Figure 3-1. South wall profile of Unit 14.

milk trucks access to the creamery, the center of the site's three buildings shown on a 1938 aerial photograph (see Appendix E).

After the backhoe stripped approximately 50cm off of the 10 x 14 m excavation site in 2016, we were left with the second fill episode (HTM2) and the bottom A horizon (2Ab). Due to slightly uneven stripping, the southernmost excavation units sometimes began higher, and therefore profiles in this area show a more complete stratigraphic record (Figure 3-1). The east wall profile of Units 9, 5, 7, 4, 6, 11, 12, 10, 1, and 14 (listed north to south) provides a comprehensive view of the overall site stratigraphy (see Figure 3-2). This expanded view of the lowest living surface (the 2Ab strata) shows a gentle southward slope from approximately 15 cm below the level line on the north end to 33 cm below on the south end, a slope of 18 cm. Likewise, the south wall profiles of Units 8, 13, and 16 illustrate a slight eastward slope to the 2Ab strata (Figure 3-3). This natural sloping to the east and south of our line of post features may have provided a small ridge and something of a high point on top of which the fort could be

situated. This idea will be examined in more detail in Chapter 4. Artifacts recovered from this lowest occupational stratum (the 2Ab) help to date this soil horizon to between the middle of the nineteenth century and the turn of the twentieth century, while artifacts recovered from the 1Ab stratum date that horizon to sometime within the early twentieth century. An analysis of these diagnostic artifacts is presented in the next section.

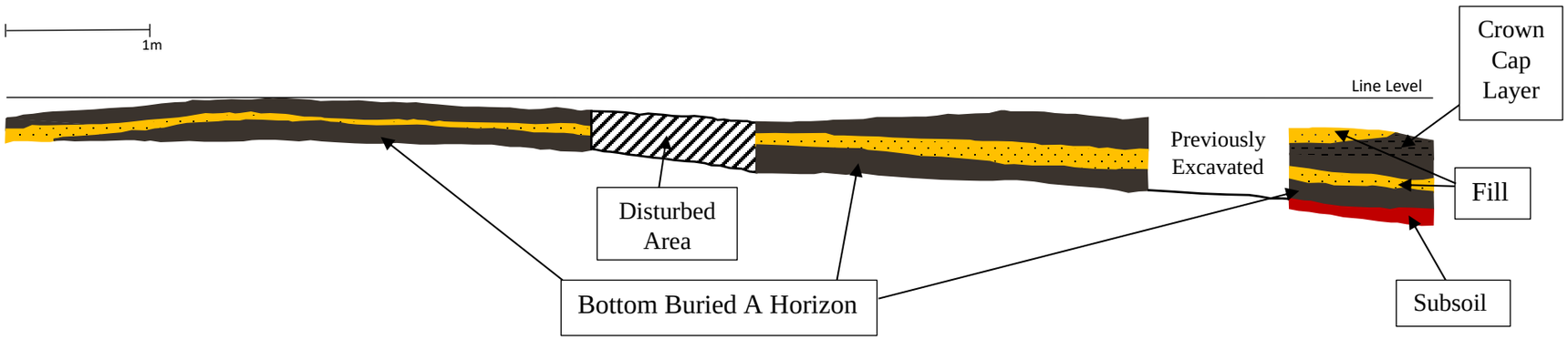


Figure 3-2. East Wall Profile of Units 9, 5, 7, 4, 6, 11, 12, 10, and 14 Showing Site Stratigraphy.

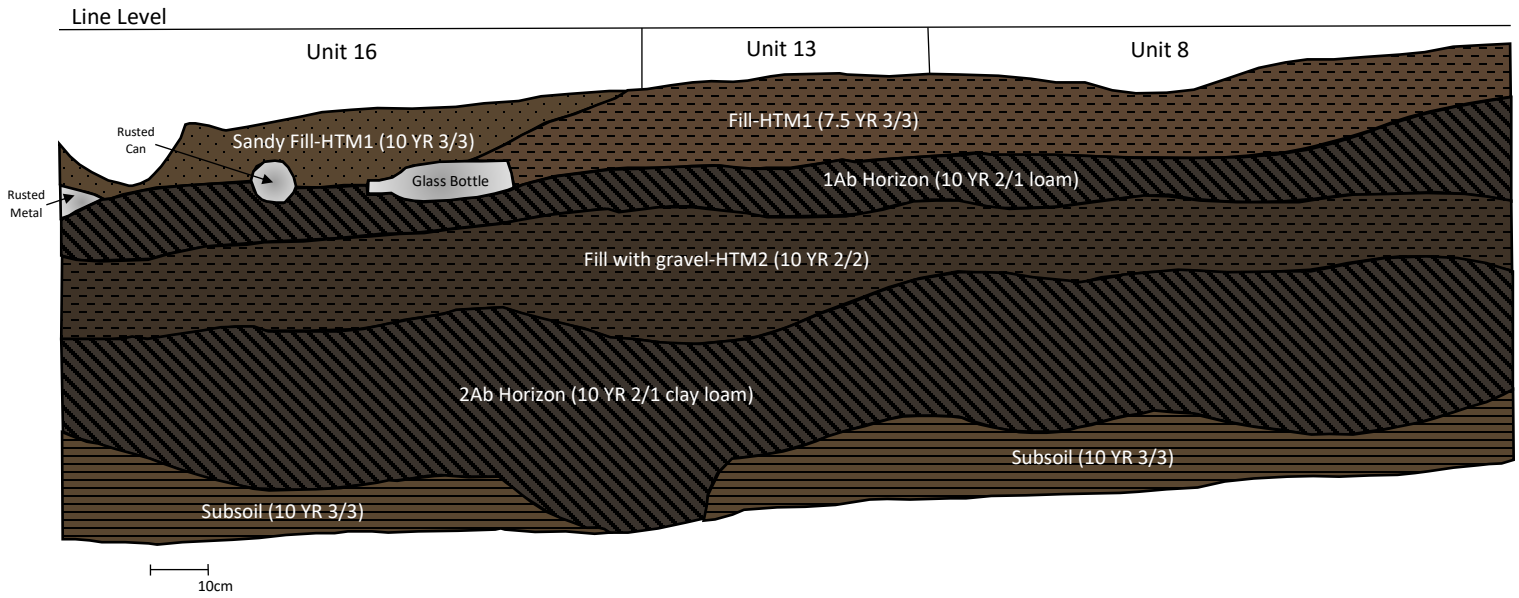


Figure 3-3. South wall profile of Units 16, 13, and 8 with Munsell colors.

Artifacts

Although not the primary focus of this project, the artifacts recovered from the site serve the important function of establishing site chronology. Artifacts from both 2015 and 2016 excavations will be detailed here together. Materials from the nineteenth and twentieth centuries were recovered and generally demonstrate the depth-time relationship established by the law of superposition; in other words, the farther down the units were excavated, the older were the materials recovered. That being stated, the 2Ab horizon still contained a mixture of both twentieth and nineteenth century artifacts, though it contained generally higher proportions of nineteenth century materials than those found in the 1Ab horizon. A total of 7,025 artifacts, 960.9 grams of faunal bone, 136.6 grams of wood specimens, and 1,149.9 grams of coal and charcoal fragments were recovered from both the surface and sub-surface excavation of the site. Diagnostic materials recovered from the site include machine-made and mold-blown bottle fragments, amber, clear, and aqua glass shards, whiteware/ironstone ceramics, late nineteenth century shotgun shells, wire nails, and machine-cut square nails, which will be detailed below.

Glass fragments collected totaled 2,525 shards. Clear glass shards totaled 1,450; amber glass totaled 355 shards; aqua glass totaled 58 shards. Some glass recovered included datable logos, such as an Owens Bottle Co. glass bottle base shard, found in Unit 2, level 3 (28.5-36.5 cmbd). Owens Bottle Co. organized in Toledo, Ohio in 1907, and the "Box-O" mark found on the bottle dates from 1919 to 1929 (Lockhart et al. 2010). Level 3 correlates with the 1Ab horizon of Unit 2, and demonstrates the presence of early twentieth century materials in this context.

Several small metallic pieces of a U.S. patented "Flanigan's Miniature Double Medical Galvanic Battery" were also recovered from Unit 17, level 2 (17-37cmbd) (Figure 3-4). The

patent, awarded to J.R. Flanigan of Boston, appears to have lasted from 1880 to 1887 (Google Patents 2006). Appearing in an advertisement in the *Cambridge Chronicle* newspaper, it was touted as "the greatest scientific achievement of the age" and was purported to cure a wide array of ailments and illnesses simply by being worn as a necklace (Cambridge Chronicle 1880). Not only is this a unique and interesting discovery, its provenience places it within the 2Ab horizon, and the product's small patent window (1880 to 1887) points to a nineteenth century occupation level here.

In addition, a cone-shaped ceramic "gaiter" button was recovered from Unit 4, level 3 (25.5-36 cmbd), our 2Ab horizon. This button was Prosser-molded, a manufacturing method that dates from 1840 onward (Sprague 2002). Two excavated shotgun shells were datable via headstamp design. Both belonged to the Union Metallic Cartridge Company (UMC); according to the Turtlefoot Headstamp Project, the "UMC Co No 10" shell, found in Unit 16, level 4 (49.5-60 cmbd), dates from 1874 to 1890, while the "UMC STAR No 2" shell (Figure 3-5), found in Unit 5, level 2 (24.5-36), dates from 1884 to 1890. The No 10 shell's provenience places it within the 2Ab horizon, suggesting that this horizon dates back to the nineteenth century. Unfortunately, due to an incident of mixed provenience in the lab that involved the STAR No 2 shell, it cannot be said with completely certainty that this artifact came from Unit 5, although the memory and notes of students were utilized to associate it in such a way. If these are accurate, the depth range of Unit 5, level 2 (24.5-36 cmbd) also places this late nineteenth century artifact in the 2Ab horizon. The source referenced for these dates, Turtlefoot Headstamp Project (2016), used original nineteenth century magazines and advertisements to produce these date ranges, but its founder admits that hard dates are difficult to define from earlier time periods and these are only estimates based upon available information (Turtlefoot Headstamp Project 2016).

Figure 3-4. The centerpiece, surrounding ring, and one disc of "Flanigan's Miniature Double Medical Galvanic Battery."

Figure 3-5. "U.M.C. STAR No 12" shotgun shell.

Whiteware and ironstone vessel fragments were also found throughout the site, totaling 427 sherds. These types of ceramics, generally given mean ceramic dates of 1860 and 1870, respectively (Stelle 2001), were found in virtually every unit, with depths ranging from 6.5 to 73 cmbd. Four sherds have blue transfer-printed patterns, one being "flow blue," a style that dates from 1845 onward (Figure 3-6). This latter sherd was recovered from Unit 1, level 4 (38-49.5 cmbd), ranging from the second fill layer through the 2Ab horizon. Thirty-three recovered sherds

are defined as decal ware, or decalcomania, a type which began production in 1890 and retained popularity through the 1930s (Figure 3-7). Some of these sherds were also found to be embossed or gold-gilted (Figures 3-8 and 3-9, respectively). One particular style of ironstone wares included embossed plant motifs, such as wheat or oats, which were produced in the 1860s

Figure 3-6. "Flow blue" whiteware sherd.

Figure 3-7. Decalcomania ironstone sherds.

and peaked in popularity near 1880 (Figure 3-8) (Miller et al. 2000; Stelle 2001). One such sherd with a barley design embossed on its rim was recovered; unfortunately, this artifact was also one that lost provenience in the lab, though we know it came from either the previously disturbed Unit 3 or Unit 5. In addition, an ironstone sherd with a black transfer-printed Powell and Bishop maker's mark was recovered from Unit 16, level 4 (49.5-60cmbd) (Figure 3-10). Powell and Bishop was an English pottery company from Hanley, Staffordshire, that began manufacturing separately from the former Livesley, Powell & Co. in 1866 or 1867, before later changing into Powell, Bishop, and Stonier in 1878 (Walthall 2013; California Department of Parks and Recreation 2017). Accordingly, this maker's mark dates from 1866-1878, a nineteenth century artifact recovered from within the Unit 16 2Ab horizon.

Figure 3-8. Embossed ironstone sherd with a wheat pattern.

Figure 3-9. Gold-gilted ironstone sherds.

Figure 3-10. Powell and Bishop ironstone with a black printed back mark, dating from 1866 to 1878.

Large amounts of both wire nails and machine-cut square nails with machine-made heads were recovered from the site, totaling 1,287. Machine-cut square nails became common in the US from 1790 on and are distinguished from earlier, hand-wrought nails in several ways: the shank of a machine-cut nail tapers to its point on only two sides; because they are cut from a plate, machine-cut nails maintain a uniform thickness throughout the shank; parallel shear marks can be observed on two sides of each nail. After being cut, the nails were headed by hand with a single hammer stroke. Beginning around 1815, machines were also used to cut the heads of square nails, and this method continued through the twentieth century, though the majority of square nail manufacturing faded toward the back end of the nineteenth century. Up through the 1830s, these nails tended to possess irregular heads, a quality that became more uniform thereafter. Small wire nails were first made in France, England and Germany in the 1820s, and wire nail manufacturing began in New York in the 1850s. Large wire nails began to be distributed in ca.1860, but neither size gained widespread use until Bessemer steel was

developed in the 1880s, allowing for wire nails to be produced quicker and more cheaply. By the 1890s they became the most popularly used nail type (Nelson 1968; Wells 1998; Miller et al. 2000).

A total of 511 wire nails, 728 machine-cut square nails, and 48 unidentified nails were recovered at the Fort Fair Haven site. Generally speaking, the ratio of machine-cut square nails to wire nails became notably higher in the 2Ab horizon as opposed to the ratio of machine-cut square nails to wire nails in either the modern A horizon or in the 1Ab horizon. This is a solid indicator of the site's temporal integrity. In most instances, the ratio of wire to square nails reverses at a certain stratigraphic threshold; this happens by the final buried A horizon (2Ab) in almost every unit. A few of these were selected to establish this consistent pattern in time and space (Table 3-1). Units 8 through 17, where artifacts were only collected from the lowest A horizon (2Ab) level, generated demonstrably higher numbers of square nails than wire nails.

Provenience	Wire Nails	Machine-Cut Square Nails	Undetermined
1Ab Horizon	9	0	1
Fill Layer 2	7	1	0
2b Horizon	61	98	0
Subsoil	0	0	0

Table 3-1. Wire, Square, and Undetermined Nails From Units 1 and 7 and STP 6.

Besides nails, other the other artifacts that were observed and collected allow us to date the 1Ab horizon and 2Ab horizon. The 1Ab horizon contained large amounts of tin can fragments, metal beer bottles, crown caps, metal wire, and clear glass, all which are indicative of

a twentieth century occupation. The 2Ab horizon, on the other hand, contained none of the crown caps and tin beer bottle fragments, but instead more whiteware/ironstone and some transfer-printed wares, as well as other, unique artifacts. These include the previously discussed nineteenth century shotgun shell caps and the Flanigan's Battery fragments, as well as amber and aqua glass bottles fragments, each with "tooled" finishes (Figure 3-11). Tooled finishes became common between the late nineteenth and early twentieth centuries and are indicated by a side mold seam that fades out on the neck, as opposed to continuing through the entire neck and lip, an attribute indicative of a machine-made bottle (Lindsey 2017). Because these, as well as other turn-of-the-twentieth century artifacts, such as clear glass and decalcomania ironstone, were found in this 2Ab horizon, it is probable that this layer dates from the mid-nineteenth century to the early twentieth century. These findings are consistent with the 2015 artifact and stratigraphy data derived from shovel test pits (see Figure 2-3 in Chapter 2). The post features described below were defined at the interface of the 2Ab horizon and the subsoil.

Figure 3-11. Aqua glass bottle finish with tooled finish.

Features

The identification and delineation of features were the primary focus of this excavation, being that they are the most likely data to reveal the location and structural details of the nineteenth century construction thought to be the stockade of Fort Fair Haven. A total of 26 post features was revealed throughout the excavation, all near subsoil, and 16 were bisected (Posts 1, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19, 20, 22, 24, 25, and 26—see Figure 3-14 below for map). Other than at the base of 2Ab and the first few centimeters of subsoil, no other features were detected. As noted above, a portion of Post 26 remained intact and was uncovered inadvertently on the last field day while cleaning and delineating Post 8 in Unit 7. The wooden post remains measured 26 cm long, 4.7 cm wide at the top, 7.1 cm wide at its broadest (near the middle), 0.67 cm wide at its base, and 4.2cm deep at its thickest (near the middle) (Figure 3-12). The extremely ephemeral nature of the fort, coupled with frequent bioturbation from roots and animals, meant that these posts sometimes proved difficult to define. Posts 17, 18, and 22 had definable post hole features surrounding the post molds (see Figure 3-13), for example, while most other post holes were absent or remained indiscernible.

Nevertheless, of the sixteen posts bisected, Posts 1, 5, 7, 12, 15, 17, 19, 21, 22, 24, 25, and 26 all were definable in profile, while the bisected profile of Posts 8, 9, and 20 were ambiguous. Nothing could be defined in profile for Posts 6 and 11. This could indicate that no posts existed here, that they were too shallowly set to be detected (McBride 2013:147), or that bioturbation and other post-depositional factors disturbed the soil, making further definition impossible. Therefore, twelve subsurface features were confirmed to be posts, while the identification of the remaining possible post features is unclear. Even if these features are taken

Figure 3-12. Remains of Post 26, found in Unit 7.

conservatively at a total of twelve, we can now trace the rough outline of a linear north-south pattern of posts. Post features 22 and 25 are set at an almost exact distance back to the west of the main line of post features. Intriguingly, profiles of posts 22 and 25 reveal that these posts were set into the ground angled eastward. The fact that these posts were set equidistantly west from the primary line of posts, combined with this eastward angling, suggests that they may have provided functions distinct from the others, such as bracing or supporting the primary stockade line. Alternatively, they may simply be a continuation of the zig-zag pattern common throughout the rest of the features. These possibilities will be further expounded upon below in Chapter 4.

None of the post features were found directly adjacent to one another, but instead included spacing that varied from approximately 16 cm (between Posts 26 and 8) to nearly 67 cm (between features 20 and 24). However, because the shape of the stockade is not known, it is difficult to assume which of these posts were directly and physically attached to one another, further complicating estimates of distance between them. For instance, Post 24 may have instead been directly connected to the westward Post 23 (one of the next closest features), which would give an approximate distance of 111 cm. Furthermore, it is possible that there *were* posts between these large gaps that simply left no archaeological imprint due to shallow impressions or by simply resting on the surface. Above-surface impediments, such as crates and barrels, may have also been used, an idea that will be further detailed in Chapter 4.

As for the posts themselves, dimensions also varied widely. Post 26, for example, had a maximum diameter of 5 cm while nearby Post 7, on the other hand, measured about 27 cm at its widest point. The shapes of the posts were also far from uniform. While the majority of them took on a circular appearance, posts 1 and 21 both had blockier, rectangular shapes. Of the eleven clearly definable post profiles, three had rounded bottoms, four were flat, and five appeared to be pointed. Depths below the subsoil surface also varied from 9 cmbs (Post 25) to 30 cmbs (Post 21) (see Table 3-2). It should be noted that these depths are from the surface of the identified features, and a small portion may have been truncated before the feature was clearly defined. The aforementioned Post 25, for instance, had at least an additional 3 cm defined in the north wall profile of Unit 17. Once again, determining exact shapes and measurements was often thwarted by post-depositional processes such as bioturbation. Nevertheless, the highly variable post shapes remain consistent with writings from other towns that explain how different sources were used for planks and posts in the forts, and set these apart from more uniform military

fortifications. Recalling Linn's (1932) description of the settlers' blockhouse at Maine Prairie, for example, logs, timbers, and planks were reused from houses, barns, fences, and other structures (Atwood ca. 1895). These materials were almost certainly not uniform in style or design, a conclusion that is further corroborated by the features discovered at Fort Fair Haven.

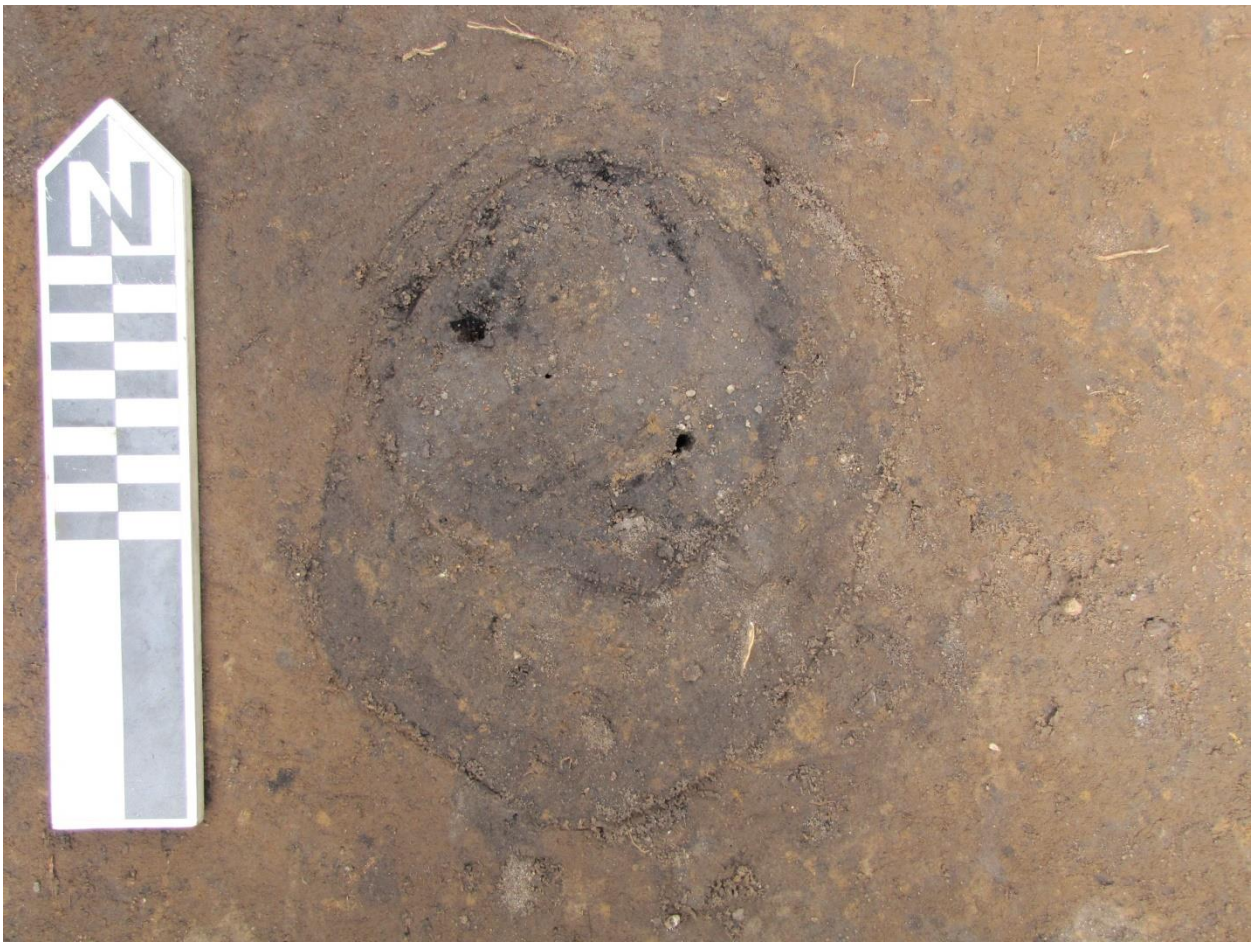


Figure 3-13. Feature 22 post mold with surrounding post hole.

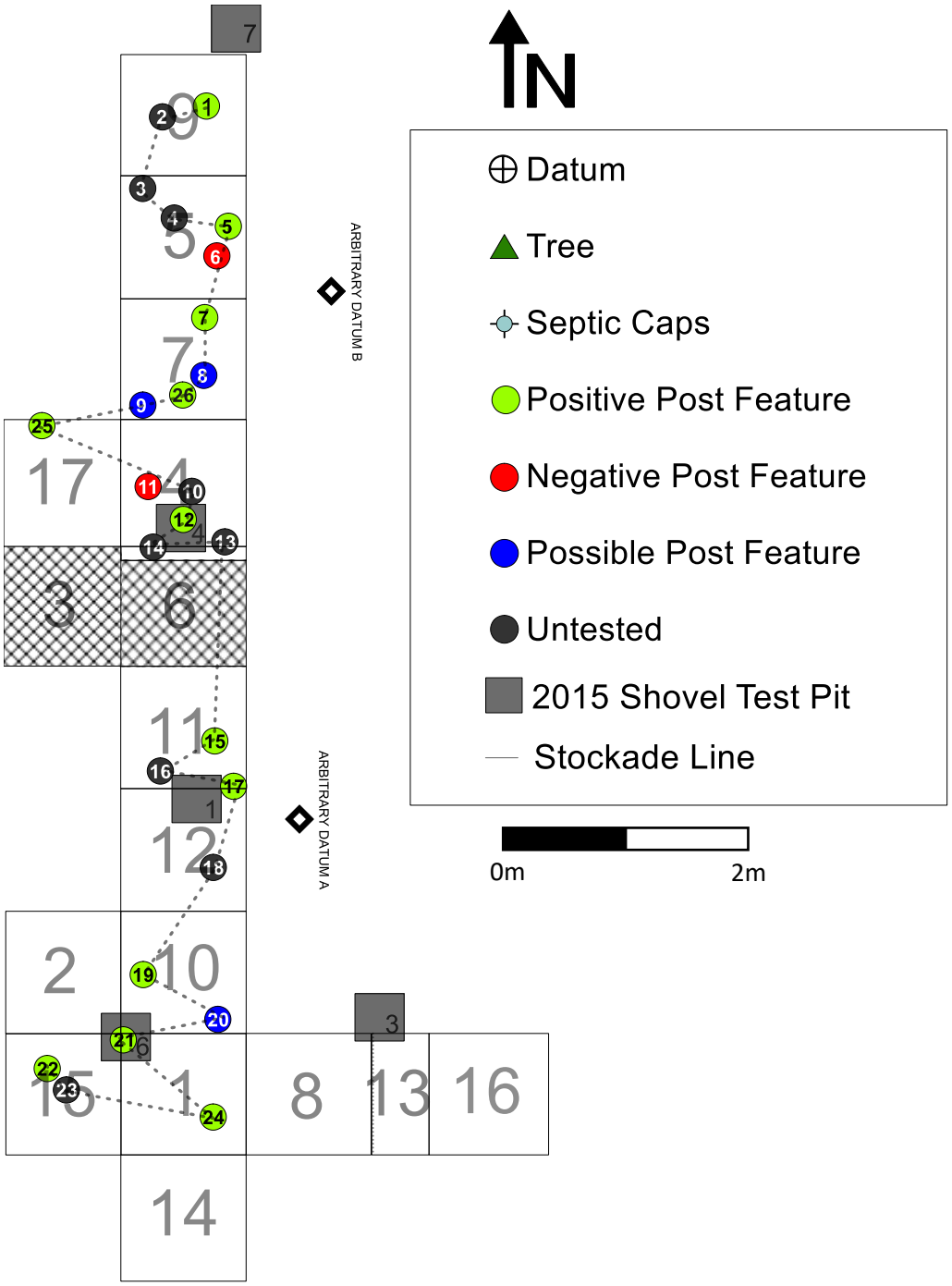


Figure 3-14. Site map with features 1 – 26.
Note: feature markers are not displayed to scale in order to maintain graphic clarity.

Feature	Diameter (cm)	Bisected Y/N	Depth (in profile)	Post Base Shape	Interpretation
1	16	Y	13	Rounded	Confirmed Post
2	16	N	-	-	-
3	13	N	-	-	-
4	28	N	-	-	-
5	31	Y	17	Flat	Confirmed Post
6	13	Y	-	-	Negative
7	27	Y	12	Pointed	Confirmed Post
8	18	Y	-	-	Possible
9	14	Y	-	-	Possible Post
10	16	N	-	-	-
11	19	Y	-	-	Negative
12	23	Y	14	Flat	Confirmed Post
13	13	N	-	-	-
14	22	N	-	-	-
15	16	Y	24	Pointed	Confirmed Post
16	18	N	-	-	-
17	22	Y	24	Pointed	Confirmed Post
18	18	N	-	-	-
19	26	Y	13.5	Rounded	Confirmed Post
20	14	Y	-	-	Possible Post
21	26	Y	30	Flat	Confirmed Post
22	25	Y	10	Rounded	Confirmed Post
23	15	N	-	-	-
24	14	Y	21	Pointed	Confirmed Post
25	22	Y	9	Flat	Confirmed Post
26	5	Y	22	Pointed	Confirmed Post

Table 3-2. Post diameters, depths, and end shapes; notice the wide variability between each feature.

Furthermore, the wide variation in post feature size and shape also informs our understanding of how the site was created. Because no evidence of a trench was discovered, the holes for each post were most likely dug individually. The disparity between post feature sizes, coupled with the urgency of the situation in the fall of 1862, points to the likelihood of separate individuals digging many of the holes, possibly using unique tools to dig each hole.

Although remains of post 26 were recovered, this was the exception throughout the 16 bisected features. Because the wood in post 26 had not completely rotted *in situ*, this suggests that the other posts were probably pulled to be reused on future structures. The only point of contention here would be if the post 26 wood was a species more resistant to degradation than the others. Attempts were made to analyze this post for species identification, but these were unsuccessful in the given time frame. This subject may be worth revisiting in the future, however.

Negative evidence is nearly as helpful when analyzing the patterns revealed in the plan view of our seventeen excavation units. For example, no posts were discovered in Units 8, 13, and 16 (to the east), Units 14 and 2 (to the south and west, respectively), and only one post was found in the westward Unit 17 (the aforementioned eastward angled Post 25) (Figure 3-14). This reveals two important details: first, because the features are not found in every unit and are grouped in a somewhat linear, organized pattern, they appear to represent an actual construction and not a randomized assortment of cultural or natural (e.g. bioturbation) soil stains; and second, that this segment of the construction stayed in a fairly consistent north-to-south line, with the exception of a possible westward turn from Unit 1 to Unit 15, emphasized by the lack of features in the southernmost Unit 14. While Units 8, 13, and 16 were excavated with the primary purpose of discovering a possible trench, not only were no post features discovered, the slight downward slope that the 2Ab horizon (likely our nineteenth century ground surface) takes here seems more likely to be a natural slope than a cultural modification to the landscape (see Figure 3-15 for topographic information). There is a distinct possibility that the slopes detected to the east and south (see Figures 3-2 and 3-3) of the post line were utilized for strategic value, namely one of elevation advantage. A natural hill or ridge could force an attacker to make an uphill assault and

place the defender on higher ground with better visibility of the surrounding area. The fact that the post features were discovered along the crest of such a slope suggests that their placement there was intentional.

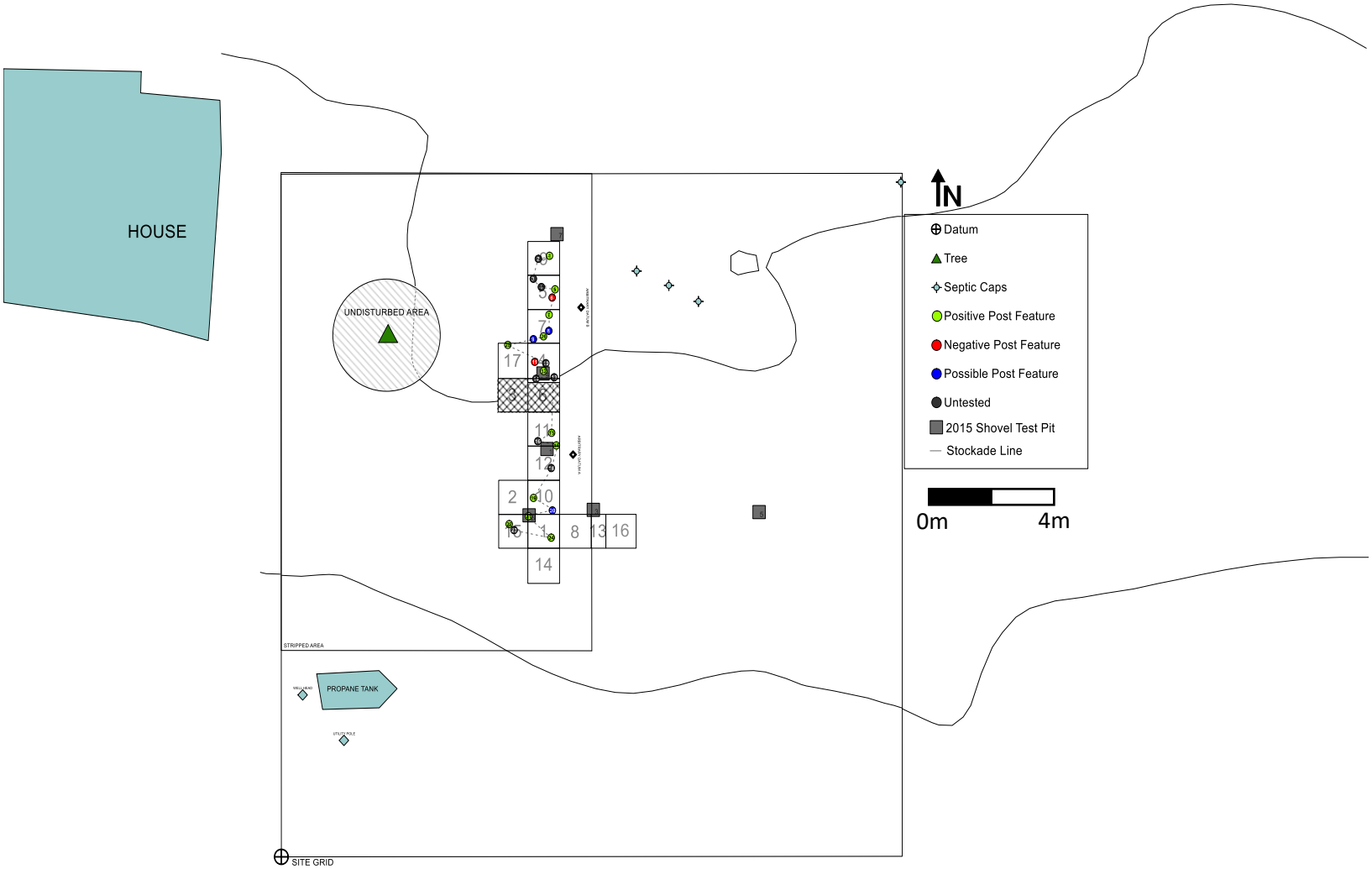


Figure 3-15. Site map with topographic lines. Note the gentle sloping to the south and southeast.

Chapter IV: Discussion and Conclusions

The information derived from the analysis of the post features uncovered at the Fort Fair Haven site tells us several things. First, it appears that what was unearthed are the archaeological remains of the fort's east wall. When the 1891 plat map is matched to the present-day site, the modern house sits roughly on the footprint of the ca. 1857 log hotel or tavern (see Figure 2-1). Both then and now, the line of posts are oriented perpendicular to the road (136th St/Kansas St), and seems to either stop or begin a westward turn in the southernmost excavation units. Being that the only descriptions of the fort mention that it surrounded the hotel, it would stand to reason that the area between the modern house and the post line could be considered the interior of the fort, placing the area east of this line on the exterior of the makeshift stockade.

In addition to these spatial details, we now know that the assorted size, spacing, and depths of the posts suggests that this was not a fortification that would have met general military standards of the time. Though Civil War archaeology demonstrates how contemporary forts primarily relied on earthworks and supporting redoubts (McBride et al. 2014), these were especially designed to absorb the weight of incoming cannon fire—a weapon that was not used by the Dakota in 1862. Wooden stockades were utilized by the United States military throughout the eighteenth and nineteenth centuries and were especially popular along the ever-expanding U.S. western frontier (Babits and Gandulla 2013; Barnes 2008). However, none of Mahan's (1862) previously discussed stipulations for a military stockade were found at Fair Haven. None of the stockade posts at Fair Haven were sunk three feet deep; even allowing for an extra few centimeters above the bisected features, the deepest post would have measured only 30 to 35 centimeters below ground, or about 12 to 14 inches. In addition, a three-foot-deep exterior trench was nowhere to be found, at least near our excavated eastern stockade line. The majority of the

posts were roughly circular, and it appears that none had been squared on two sides as Mahan suggests—though Posts 5, 12, 21, and 25 were squared on all four sides.

While these details are important to consider for contemporary comparison, it should also be noted that even many western military posts of the day were not fortified with a stockade or any other defensive structures. A prime example is Fort Ridgely, which was the site of one of the first clashes between Dakotas and whites. Described as "more or less a police station" (Barnes 2008:19), the site featured a collection of several unconnected military structures surrounding a central parade ground, but included no actual defensive elements (Carley 1976). Up until the conflict in 1862, white and Indian relations in the northern regions of the United States were considered by whites to be agreeable and no such precautions were taken. From this time until the "closing" of the frontier in 1890, however, western military forts became more heavily fortified. Therefore, it may be more useful to compare Fair Haven's 1862 fort to military *frontier* forts, being that they differed from their Civil War fort counterparts in their supply and resource constraints, as well as overall functional differences. In other words, military forts such as Ridgely and Abercrombie were meant as outposts for small troop garrisons, not for protection against Confederate cannons and soldiers, and would be more fitting comparisons to the settlers' forts.

As for the shape of Fort Fair Haven's defensive structure, it is difficult to determine with a high degree of certainty. As previously mentioned, since post features 22 and 25 are both set back equidistant from the central line of posts and angled eastward towards the rest of the structure, they may have served as bracing for the main structure. On the other hand, they may have simply served as part of a rather odd zigzag pattern of posts, perhaps designed with the intent of adding barrels, crates, and other impediments, or simply to plug gaps in the initial line

of posts (see the two projected post lines in Appendix D for comparisons). This pattern may have also been a deliberate technique employed to increase firing angles along the barricade, as is the idea behind military bastions. There is also the possibility, though slight, that the stockade was reconstructed during the 1863 "Indian scare," when some Dakotas returned from the west in the spring following the 1862 war. In this situation, the citizens of Fair Haven could have potentially reused the same area to reconstruct the fort, creating an additional line of post features. This is unlikely, however, as the only 1863 incidents that occurred near Fair Haven was an instance of reported horse thieving to the north and the killing of James McGannon, which happened down the road from the town. Furthermore, no mention is made of a second stockade being built in any of the Fair Haven histories. We can therefore assume that the zigzag pattern of posts was intentional, and may have even been inspired by nineteenth century fencing methods known to most farmers, such as split-rail, or "zigzag," fences (Figure 4-1). This type of fencing used wood from newly cleared areas to create 10 ft. rails that were interspersed and angled back and forth for support. They were, however, relatively time and labor intensive, and were rather easily toppled (Granger 2005:6.192).

With these issues in mind, how effective would the defensive structure of Fort Fair Haven have been? Interestingly, potential answers may lie in a French and Indian War fort built over one hundred years earlier along the Virginia frontier in present-day West Virginia. After British General Braddock's forces were defeated in July 1755, Native raids on military and civilian settlements in the area escalated, and the settlers who did not flee found ways to fortify their positions for protection. One such civilian fortification was that built by Joseph Edwards (McBride 2013). His makeshift stockade eventually even held garrisons of British soldiers, at

Figure 4-1. Paul W. Klammer, an example of a split-rail or "zigzag" fence near Lydia, Minnesota, 1940. Minnesota Historical Society.

times by the order of Colonel George Washington. This somewhat surprising situation was not unique to the period; indeed, U.S.-Dakota War of 1862 settlers' forts at Sauk Center, Paynesville, and other locations were later commandeered and improved by the U.S. military. What may be surprising, though, is that Edwards's eighteenth century fort shares similar archaeological signatures with Fort Fair Haven. Chief among these were the variable Edwards Fort post sizes, which ranged from 4 to 10 inches (10.16 to 25.4 cm) in diameter, and with 8 to 10 inch (20.32 to 25.4 cm) gaps found between posts. To this latter measurement, McBride (2013:147) points out that either sizeable gaps did exist and the fort was not very effective, or

that smaller, shallower posts were used in between and could not be detected archaeologically due to the process of fort deconstruction and/or other variables. Whatever the case, the Edwards Fort example does demonstrate that Washington and other British commanders saw it as an asset, even if it was a rather improvised civilian structure. The question of its defensive effectiveness is affirmed by the very fact that British soldiers were stationed within it.

In addition, the potential for above surface defenses should be considered when explaining the gaps in both Edwards's and Fair Haven's stockades. Recalling that 1862's Fort Ridgely was an unfortified collection of buildings, when news of an eminent attack came the soldiers set about barricading the gaps between those buildings with cord wood and sacks of grain (Hubbard 1908). Though these defenses were greatly bolstered by the three to five artillery pieces that were stationed at the fort, in this way the small garrison of 180 soldiers managed to hold off an estimated 400 Dakota warriors until reinforcements later arrived (Carley 1976; Barnes 2008). In New Ulm, just one day prior, the citizens were set upon by several hundred Dakota warriors. With only about a day to prepare for the attack, the townspeople fortified about three blocks of the inner town with a "barricade," or "makeshift barriers," depicted in a 1902 Anton Gag painting as piles of wood, crates, and barrels (Figure 4-2) (Carley 1976:32-36). Though not as ideal as a proper stockade, these examples show that above ground barricades can still prove useful in dire situations. When time is of great essence, as was the case in each of these situations, any impediment could be one of great usefulness.

Along with lack of time, another factor that contributed to the makeshift nature of many of these defensive structures was the lack of available resources. As noted in recollections of the events of 1862, citizens were desperate to the point of prying wood logs and paneling off of barns and bridges (Atwood ca. 1895; Linn 1932). It is therefore not a far-fetched notion that

Figure 4-2. Anton Gag 1902 painting of the First Battle of New Ulm. The image depicts a barricade crossing 3rd St. from the Schalk Building. Brown County Historical Society, New Ulm, Minnesota.

supporting elements such as barrels and crates were used in the construction of other civilian forts. The possibility of smaller pieces of wood being nailed horizontally across the upright posts also should not be discounted. The conflict was, after all, rather spontaneous and sporadic and settlers had little in the way of knowing what town might be targeted next. The bottom line is that, under these conditions, a high level of improvisation is to be expected. Taking these conditions and the related examples of Fort Ridgely and New Ulm into account, combined with the variable nature of the post features and their lack military organization, the term "barricade" may be more fitting for what was constructed at Fair Haven in 1862. The term barricade is defined as "an obstruction…thrown up across a way or passage to check the advance of the enemy" (Merriam-Webster 2017), a more generalized term than a stockade that would have met Mahan's military standards.

To my knowledge, no contemporary drawings or photographs of the 1862 settlers' forts survive today. The only sketches that do remain are those that were either drawn after the U.S. military commandeered and improved the fort (such as the plan map of the post at Sauk Center), or are modern artistic recreations based on historic description and imagination, many of which have been influenced by the mythologizing of the American west. The modern reconstruction of the 1862 fort at Forest City, Minnesota is likely a good example of this historical imagination at work. With only twenty-four hours to work, it is easy to speculate that the civilian-made fort there bore little resemblance to the stout stockade that stands today (Figure 4-3). The wooden marker by the Fort Fair Haven site, which described the structure as a "fortress" is another example of how these defenses have lived on in the modern narrative. It is also likely that the drawings of the military's forts located at Sauk Center, Paynesville, and other locations differed from the impromptu defenses that settlers threw together in the fall of 1862 (Figure 4-4). While some towns where substantial civilian fortifications were constructed, such as Fort Holes in St. Cloud, may have had more individuals and materials than did Fair Haven, in most cases settlers were severely restricted by both time and available resources. Although it is clear that some settlers were determined to stay and defend what they saw as their property, the well-planned, solid fortifications we think of today were usually crafted with more time, better materials, and involved military expertise. It is my suspicion that further archaeological investigation of settlers' fort sites would also reveal varying degrees of improvisational techniques.

Yet, in the end, these settlers' forts proved quite effective and, regardless of their hasty construction, they managed to make a statement. Berg (2012:111) sums this up succinctly in his narrative following a small skirmish between Little Crow and some soldiers from the Tenth Minnesota Regiment:

Figure 4-3. A modern-day "reconstruction" of the settlers' fort at Forest City, Minnesota.

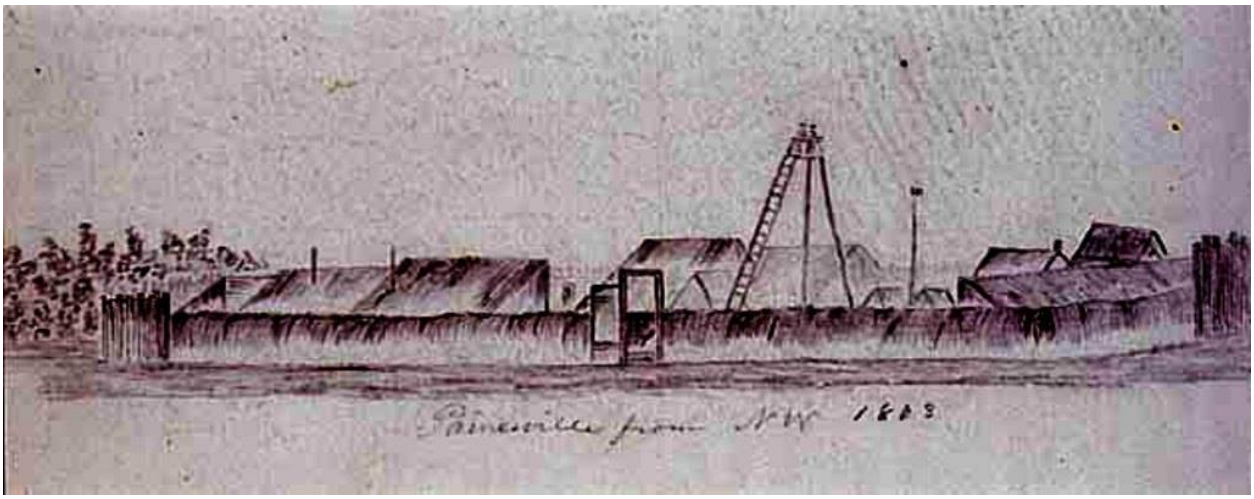


Figure 4-4. A historical sketch of the military fort at Paynesville, Minnesota, ca. 1863. Paynesville Area Historical Society Museum.

> When Little Crow followed the soldiers into Hutchinson, he found no people in sight and an impressive-looking stockade in the center of town. Something about this fortification seems to have taken the wind out of Little Crow; surely this meant that other towns in the vicinity had done the same and would no longer be so easily frightened.

Little Crow's men unsuccessfully tried to set fire to the stockade before all but abandoning plans to raid the surrounding towns. The Dakota resistance had been matched by that of the newly formed state's settlers, and those who did not flee put up just enough of a fight to confound the Dakota's plans to quickly rout the whites in the region. With the large majority of Minnesota's soldiers being sent away to fight the Confederacy, the actions that these civilians took allowed the U.S. government and state militia time to bring in reinforcements and ultimately end the conflict. The makeshift fortifications that these settlers constructed played an integral role in this and likely led to the militant Dakotas' relatively quick defeat.

Based on both archaeological and historical evidence, the Fort Fair Haven site was not maintained long past September 1862 of the conflict. Indeed, the posts themselves seem to have been pulled and reused, leaving only faint archaeological evidence. The site's lack of continued upkeep suggests that the settlers of Fair Haven probably believed that the threat had passed, and were eager to return their village to some sense of normalcy. Colonel Sibley had, in fact, rounded up and imprisoned most Dakotas of the region within the camp near Fort Snelling. Additionally, the materials used to construct the fort were probably quite valuable to early Euro-American settlers, and other uses were likely found soon after any threat of danger had passed.

The U.S.-Dakota Conflict had, and continues to have, a large impact on the state of Minnesota and the rest of the Upper Midwest. Understanding the structures, materials, and intent behind the civilian stockades of the Minnesota frontier is another essential piece in the overall history of the region. Though these temporary defensive fortifications offer but one facet in a nuanced and complicated story, by shedding more light on their details we can hope to build a more complete picture of the period and its regrettable tragedies. The mistreatment of Native Americans, both prior to and as a result of these conflicts, produced long-term repercussions that continue to be felt today. Because of this, it is important to view these events in their entire context while critically examining their causes and outcomes. This, in turn, may help educate both current and future generations on the conflict and its origins.

Above all, we must not forget the individuals who lived through this tumultuous time. The bravery and resilience demonstrated by Dakotas and Euro-Americans alike as they fought for their families and lands are worthy of honoring, even within such dire and controversial situations. If, in the end, we fail to remember the men and women of such times, and the lives and sacrifices that were made by these individuals, we are in danger of losing what truly makes historical archaeology an effort worth pursuing.

References Cited

1896 Fair Haven, Stearns County
1896 John R. Borchert Map Library, University of Minnesota. Electronic Document, https://www.lib.umn.edu/borchert/digitized-plat-maps-and-atlases#S, accessed October 14, 2015.

Anderson, Gary
1986 *Little Crow: Spokesman for the Sioux*. Minnesota Historical Society Press, St. Paul.

Anderson, Gary Clayton & Woolworth, Alan R. (Eds.)
1988 *Through Dakota Eyes: Narrative Accounts of the Minnesota Indian War of 1862*. Minnesota Historical Society Press, St. Paul.

Anfinson, Scott
2005 *SHPO Manual for Archaeological Projects in Minnesota*. Minnesota Historical Society, St. Paul.

Atwood, E.H.
ca. 1895 *Early History of Maine Prairie, Fairhaven, Lynden, Eden Lake and Paynesville*. Stearns History Museum.

Atwood, E.H. & R.M. Van Dervory
ca. 1915 *History of Stearns County*. Stearns History Museum.

Babits, Lawrence E., and Stephanie Gandulla (Eds.)
2013 *The Archaeology of French and Indian War Frontier Forts*. University Press of Florida, Gainesville.

Barnes, Jeff
2008 *Forts of the Northern Plains: Guide to Historic Military Posts of the Plains Indian Wars*. Stackpole Books, Mechanicsburg, PA.

Berg, Scott W.
2012 *38 Nooses: Lincoln, Little Crow, and the Beginning of the Frontier's End*. Vintage Books, New York.

Botz, Vincent P.
2014 *Stearns County and the Dakota War of 1862*. North Star Press, St. Cloud, MN.

Brown, Dee
1970 Little Crow's War. *Bury My Heart at Wounded Knee: An Indian History of the American West*. St. Martin's Press, New York, NY.

California Department of Parks and Recreation
2017 Makers Mark Type Collection Photo Gallery. Electronic Document, http://www.parks.ca.gov/?page_id=22319, accessed February 20, 2017.

Cambridge Chronicle
1880 Flanigan's Miniature Double Medical Galvanic Battery. Cambridge Chronicle, Vol XXXVI, June 26. Cambridge Public Library. Electronic Document, http://cambridge.dlconsulting.com/cgi-bin/cambridge?a=d&d=Chronicle18800626-01.2.19.2#, accessed October 7, 2016.

Calloway, Colin G.
2012 *First Peoples: A Documentary Survey of American Indian History*. Bedford/St. Martin's, New York, New York.

Carley, Kenneth
1976 *The Dakota War of 1862: Minnesota's Other Civil War*. The Minnesota Historical Society Press, St. Paul.

Census Office
1860 Fed. Dec. Census 1860. Microfilm production: Stearns History Museum. C.M. Foote & Co.

Geier, Clarence E., Douglas D. Scott, and Lawrence E. Babits (Eds.)
2014 *From These Honored Dead: Historical Archaeology of the American Civil War*. University Press of Florida, Gainesville.

Google Patents
1880 J.R. Flanigan Medal Battery. Electronic Document, https://www.google.com/patents/USD11656#forward-citations, accessed October 7, 2016.

Granger, Susan and Scott Kelly
2005 *Historic Context Study of Minnesota Farms, 1820-1960, Vol 2*. Minnesota Department of Transportation.

Hart, James
1845 – 1927 *Historical Reminisces of Services in Dakota and Minnesota*. Microfilm production: Minnesota Historical Society, 1994. M582, Reel 2.

Howard, John R.
1931 The Sioux War Stockades. *Minnesota History* 12(3):301-303.

Lindsey, Bill
2017 Bottle Finishes (aka "Lips") and Closures. Historic Glass Bottle Identification & Information Website. Electronic Document, https://sha.org/bottle/finishes.htm#Molded%20&%20Tooled%20finish, accessed September 19, 2016.

Linn, Rachel A. Maservey
1932 Account of building a block house at Main Prairie, Minn. During the uprising. Microfilm production: Minnesota Historical Society, 1994. M582, Reel 2.

Lockhart, Bill, Pete Schulz, Carol Serr, and Bill Lindsey
2010 "The Dating Game – The Owens Bottle Co." Society for Historic Archaeology. Electronic Document, https://sha.org/bottle/pdffiles/owensbottlecompany.pdf, accessed February 20, 2017.

MacAlmond, Rebecca
1862 Diary. Microfilm production: Minnesota Historical Society, 1994. M582, Reel 2.

Mahan, D.H.
1862 *A Treatise on Field Fortification, Containing Instructions on the Methods of Laying Out, Constructing, Defending, and attacking Intrenchments; with the General Outlines also of the Arrangement, the Attack and Defence of Permanent Fortifications*. Fourth Edition. Richmond, Va.

McBride, W. Stephen
2013 'To Preserve the Forts, and the Families Gathered in Them': Archaeology of Edwards's Fort, Capon Bridge, West Virginia. *The Archaeology of French and Indian War Frontier Forts*. University Press of Florida, Gainesville.

McBride, W. Stephen, Kim A. McBride, and J. David McBride
2014 Archaeology and Reconstruction of Fort Putnam, Camp Nelson: A Civil War Heritage Park in Jessamine County, Kentucky. *From These Honored Dead: Historical Archaeology of the American Civil War*. University Press of Florida, Gainesville.

Merriam-Webster
2017 Electronic Document, https://www.merriam-webster.com/dictionary/barricade, accessed February 21, 2017.

Miller, George L., Patricia Samford, Ellen Samford, and Andrew Madsen
2000 Telling Time for Archaeologists. *Northeast Historical Archaeology*. 29:1, 1-22.

Minnesota Historical Aerial Photographs Online
2015 BJN-10-55. John R. Borchert Map Library, University of Minnesota.

National Register of Historic Places
1990 Pipe Lake Fort, 21ME0031. National Register of Historic Places Registration Form. Meeker County, MN.

National Register of Historic Places
2013 Fort Juelson, 21OT198. National Register of Historic Places Registration Form. Otter Tail County, MN.

Nelson, Lee H.
1968 NAIL CHRONOLOGY: as an aid to dating old buildings. *History News*. 23:11, 203-214.

Nelson, C.C.
1926 History of the early pioneers of this neighborhood… Microfilm production: Minnesota Historical Society, 1994. M582, Reel 3.

O'Malley, Nancy
1994 'Stockading Up': An Archaeological Evaluation of Pioneer Station Sites in Central Kentucky. University of Kentucky, Lexington.

Partridge, Brian
2005 History of Fair Haven. *Annandale Online*. Electronic Document, http://www.annandaleonline.com/history/HistoryClub/Programs/BrianPartridge-3-7-05.htm, accessed April 12, 2015.

Smith, Kevin E.
2000 Bledsoe Station: Archaeology, History, and the Interpretation of the Middle Tennessee Frontier, 1770-1820. *Tennessee Historical Quarterly*. 59:3, 174-187. Tennessee Historical Society.

St. Cloud Democrat
1862 Fortifications. Stearns History Museum.

Stelle, Lenville J.
2001 An Archaeological Guide to Historic Artifacts of the Upper Sangamon Basin, Central Illinois, U.S.A. Parkland College, Champaign, Illinois. Electronic Document, http://virtual.parkland.edu/lstelle1/len/archguide/documents/arcguide.htm, accessed September 2, 2016.

Sprague, Robert
2002 China or Prosser Button Identification and Dating. *Historical Archaeology* 36(2):111-127.

Stroh, Megan
2015 *Gradiometer Investigations of the Fort Fairhaven Site in Fairhaven, MN*. Sanford Museum and Planetarium. Submitted to Dr. Rob Mann, St. Cloud State University.

Swanson, Duane P.
2011 1862 Before and Beyond. *Minnesota History*. Minnesota Historical Society Press, St. Paul, 62(8): 286.

Taylor, Oscar
1859-1963 *Military Papers*. Microfilm production: Minnesota Historical Society, 1994. M582, Reel 3.

Terrell, Michelle
2006 *Historical Archaeology of Minnesota Farmsteads: Historic Context Study of Minnesota Farmsteads, 1820-1960*. Minnesota Department of Transportation.

Turtlefoot Headstamp Project
2016 Union Metallic Cartridge Company (UMC). Turtlefoot Headstamp Project. Electronic Document, http://www.headstamps.x10.mx/umcco.html, accessed September 21, 2016.

Tveskov, Mark and Amy Cohen
2014 Frontier Forts, Ambiguity, and Manifest Destiny: The Changing Role of Fort Lane in the Cultural Landscape of the Oregon Territory, 1853-1929. *Rethinking Colonial Pasts through Archaeology*, 191-211. Oxford University Press, Oxford.

Vincent, P. Barabba
1976 Historical Statistics of the United States: Colonial Times to 1970, Part 1. U.S. Department of Commerce, Bureau of the Census. Electronic Document, http://www.census.gov/history/pdf/histstats- colonial-1970.pdf, accessed November 28, 2016.

Vye, J.A.
1927 *Fair Haven: A Historical Sketch*. St. Cloud Daily Journal Press, St. Cloud, MN.

Wells, Tom
1998 Nail Chronology: The Use of Technically Derived Features. *Historical Archaeology* 32(2): 78-99.

Westerman, Gwen, and Bruce White
2012 *Mni Sota Makoce: The Land of the Dakota*. Minnesota Historical Society Press, St. Paul.

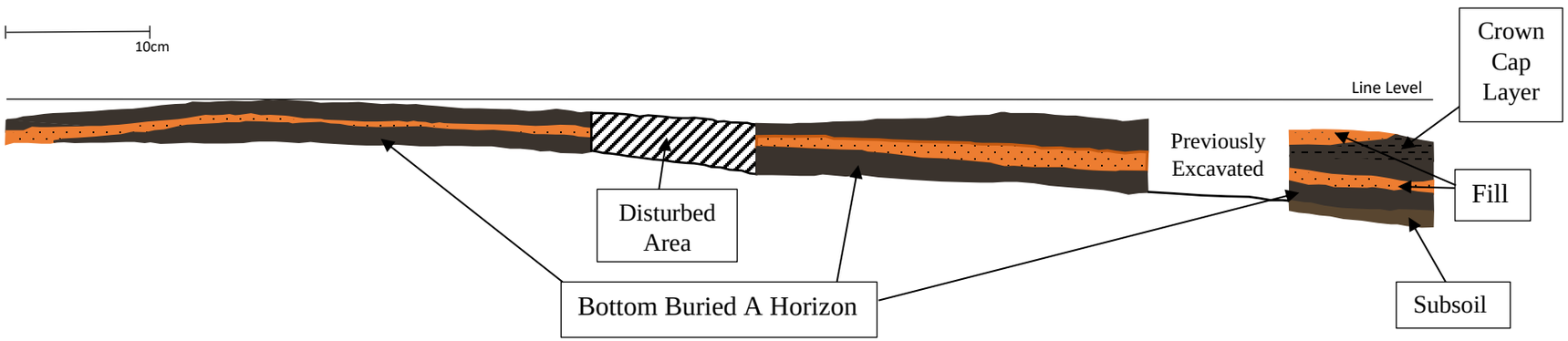
Wilson, Angela Cavender
2004 Decolonizing the 1862 Death Marches. *The American Indian Quarterly* 28: 1&2 185-215. University of Nebraska Press, Lincoln.

Wingerd, Mary Lethert.
2010 *North Country: The Making of Minnesota*. University of Minnesota Press, Minneapolis.

White, Richard
1991 *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*. Cambridge University Press, Cambridge.

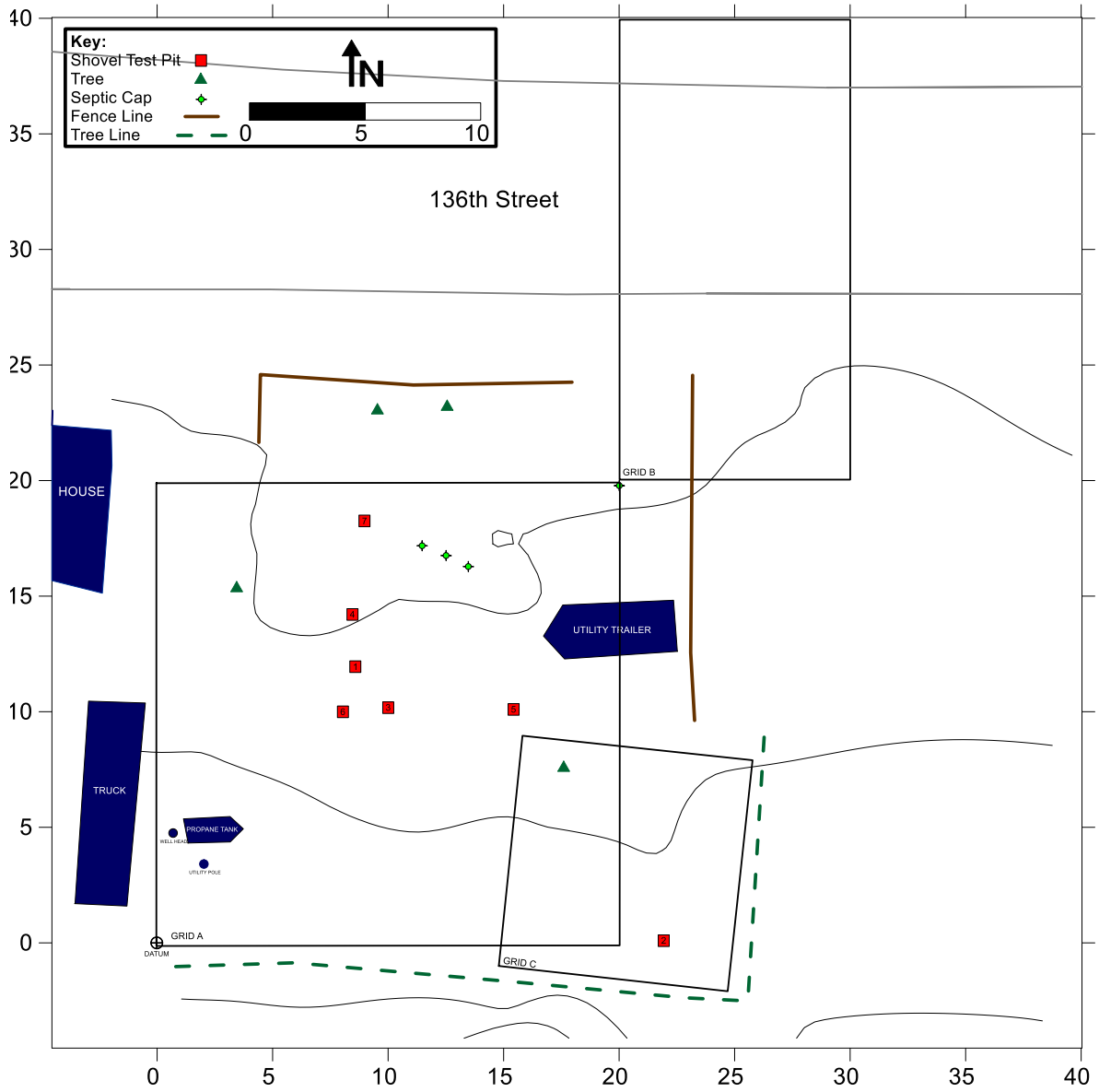
Wood, Sally
1862-1863 Letters. Microfilm production: Minnesota Historical Society, 1994. M582, Reel 3.

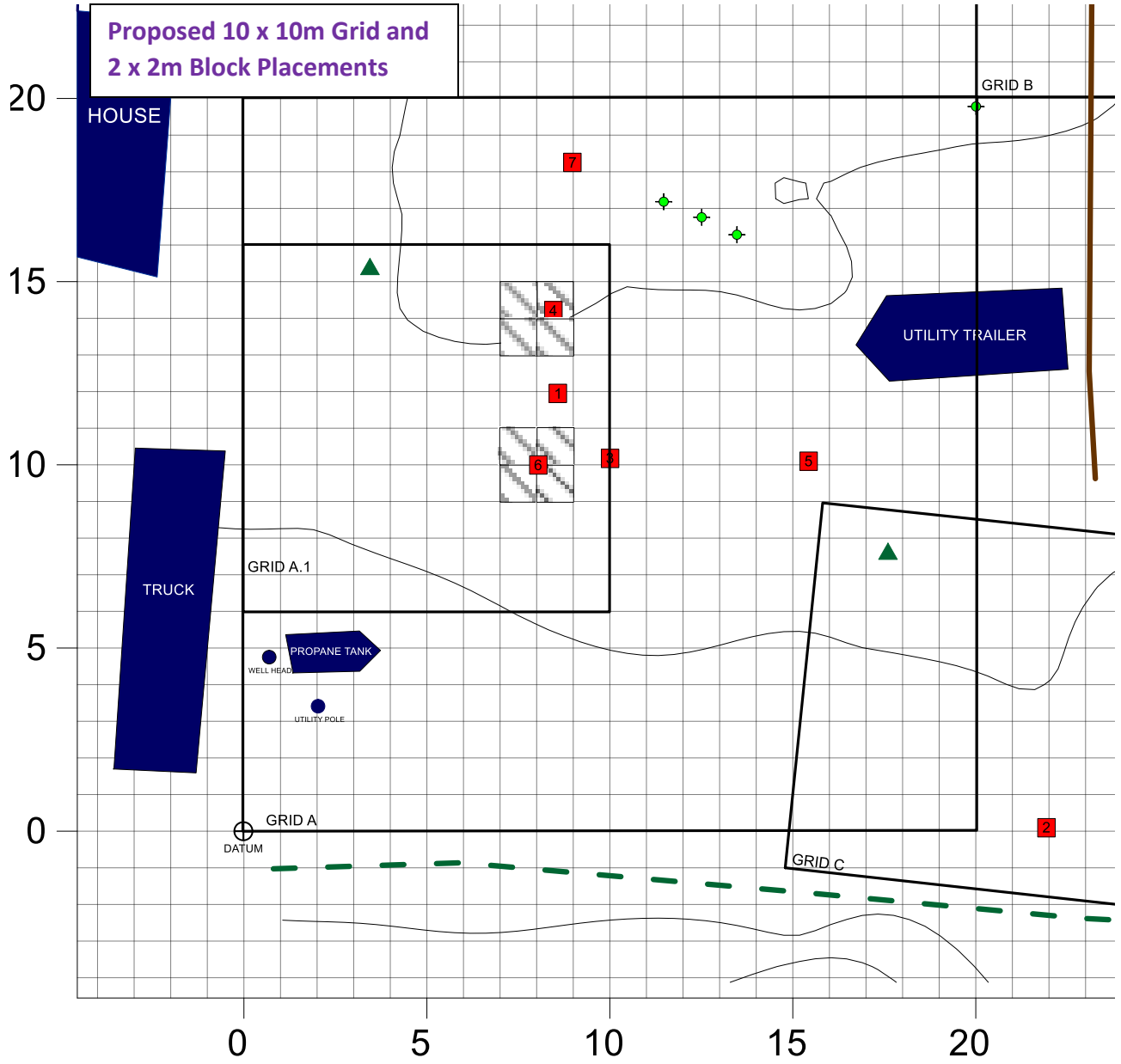
Appendix A: East Wall Profile of Site



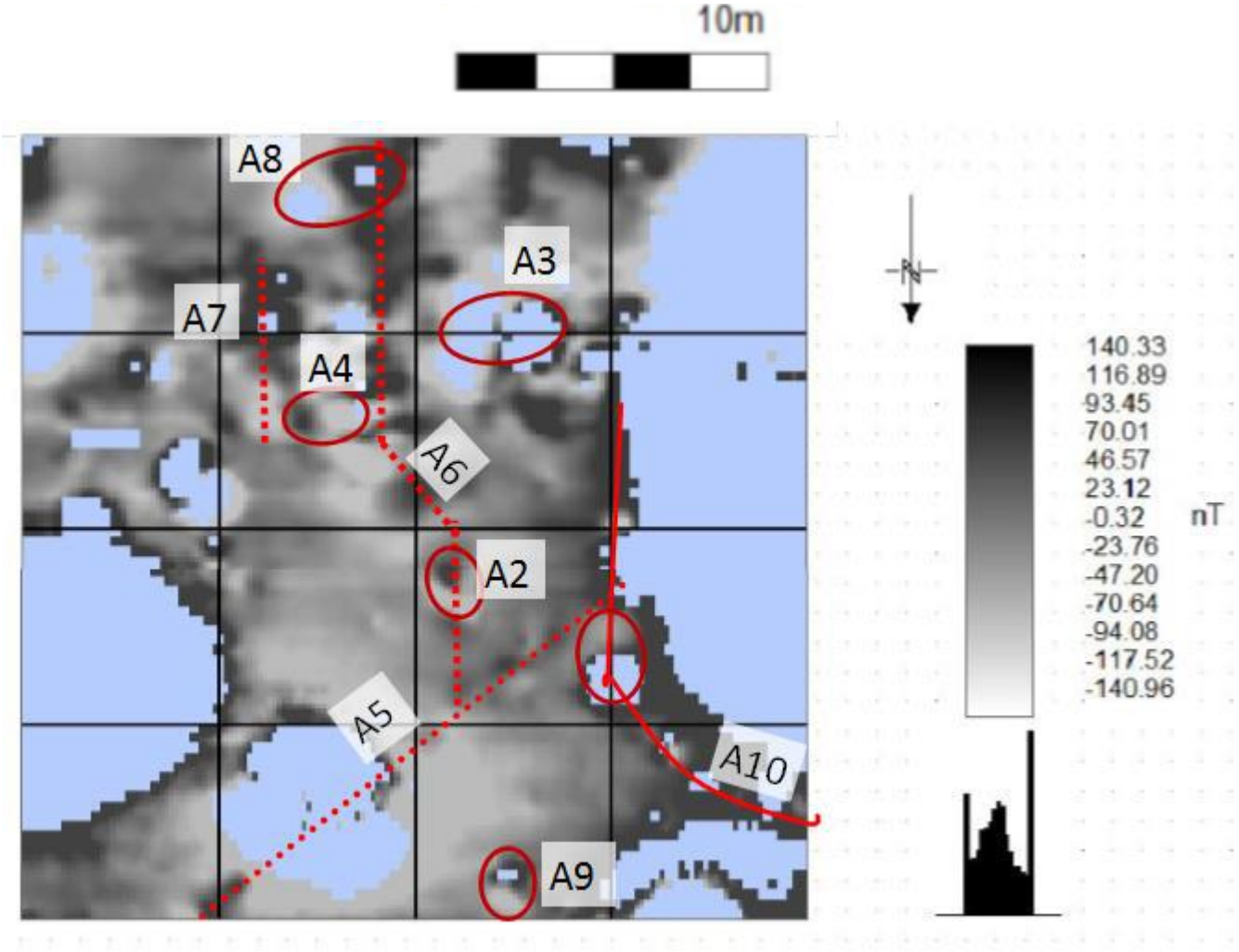
East Wall Profile of Units 9, 5, 7, 4, 6, 11, 12, 10, 1, and 14 Showing Site Stratigraphy

Appendix B: Proposed Excavation

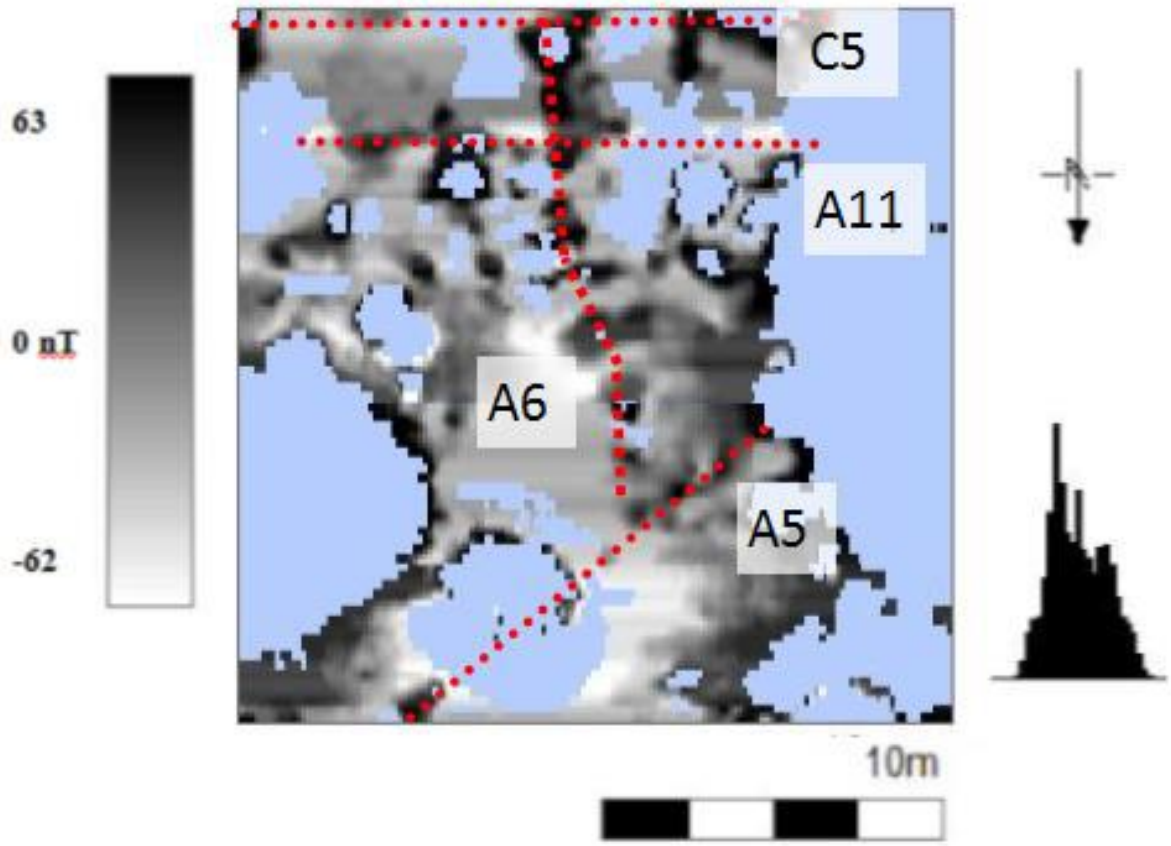



Proposed 10 x 10m Grid and
2 x 2m Block Placements
HOUSE
GRID B
UTILITY TRAILER
TRUCK
GRID A.1
PROPANE TANK
WELL HEAD
UTILITY POLE
GRID A
DATUM
GRID C
1
2
3
4
5
6
7
0
5
10
15
20
0
5
10
15
20

Appendix C: Gradiometer Survey (Stroh 2015)



Interpretive map of strong magnetic features in Grid A (See Table C).

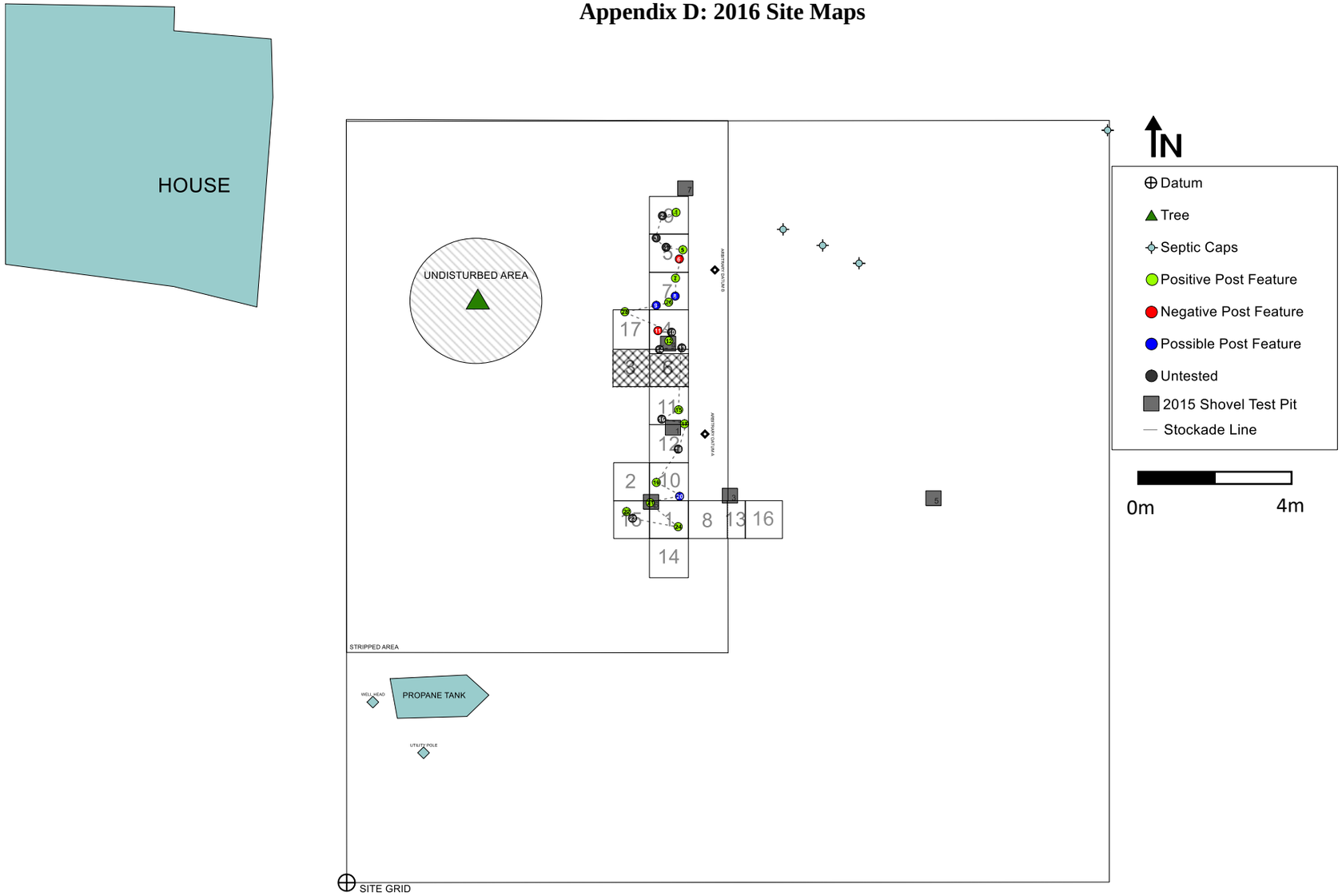


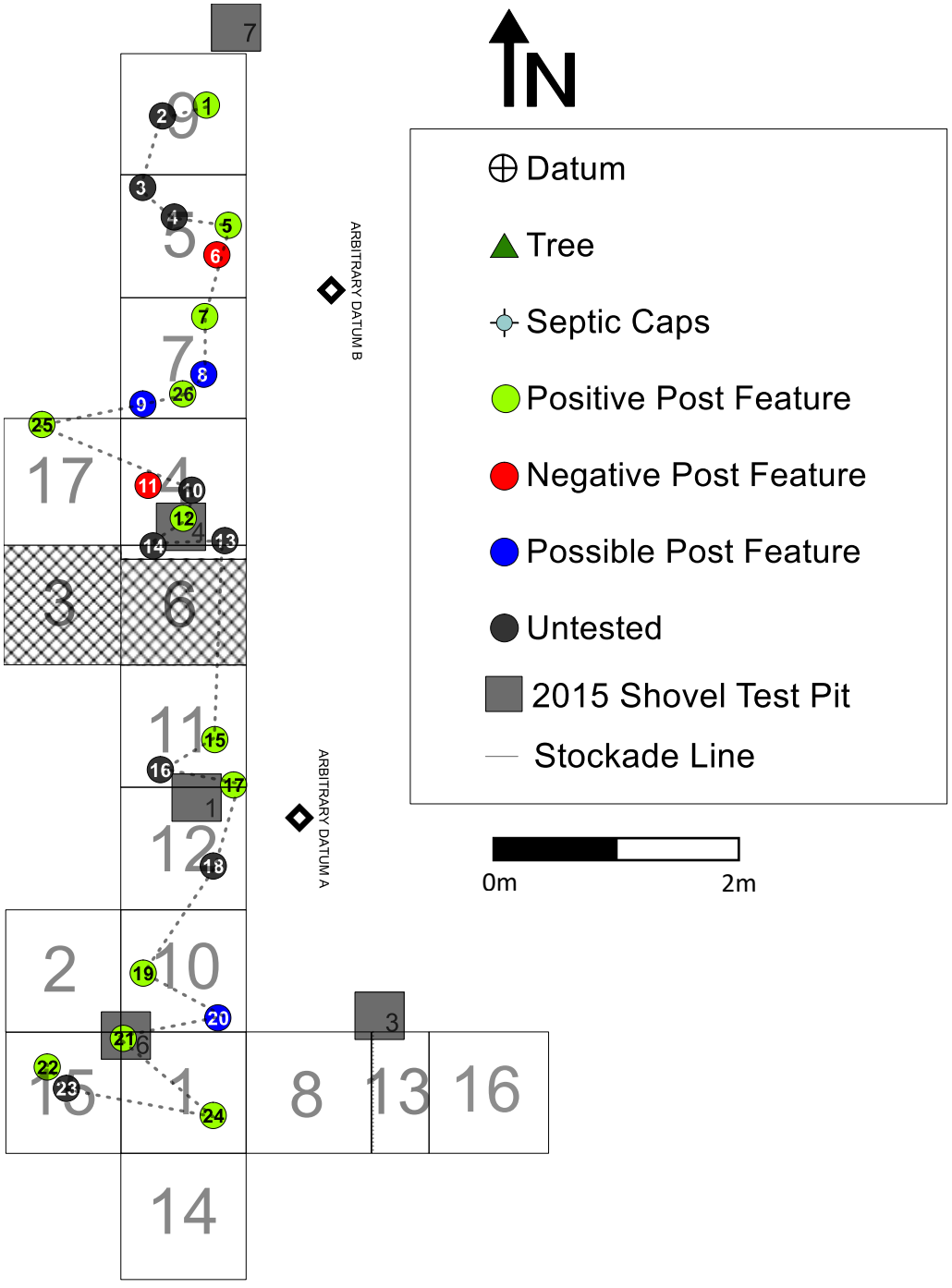
Interpretive map of weak features in Grid A (see Table C).

Feature ID	Anomaly Type	High (nT)	Low (nT)	Shape	Interpretation
A1*	Dipole			Oval	Section of utility line A10
A2*	Dipole			Oval	Metal object, may also be related to linear feature A6
A3*	Dipole			Oval	Metal object
A4*	Dipole			Oval	Metal object
A5*	Monopole	65.84	-38	Linear	Trench or ditch
A6*	Dipole	84.96	-56.57	Linear	Trench or ditch
A7*	Dipole			Linear	Linear concentration of metal objects
A8*	Dipole			Oval	Metal object
A9*	Dipole			Oval	Metal object
A10	Dipole	204.7	-110.5	Linear	Utility Line
A11	Monopole	2.11	-58.13	Linear	Trench or ditch

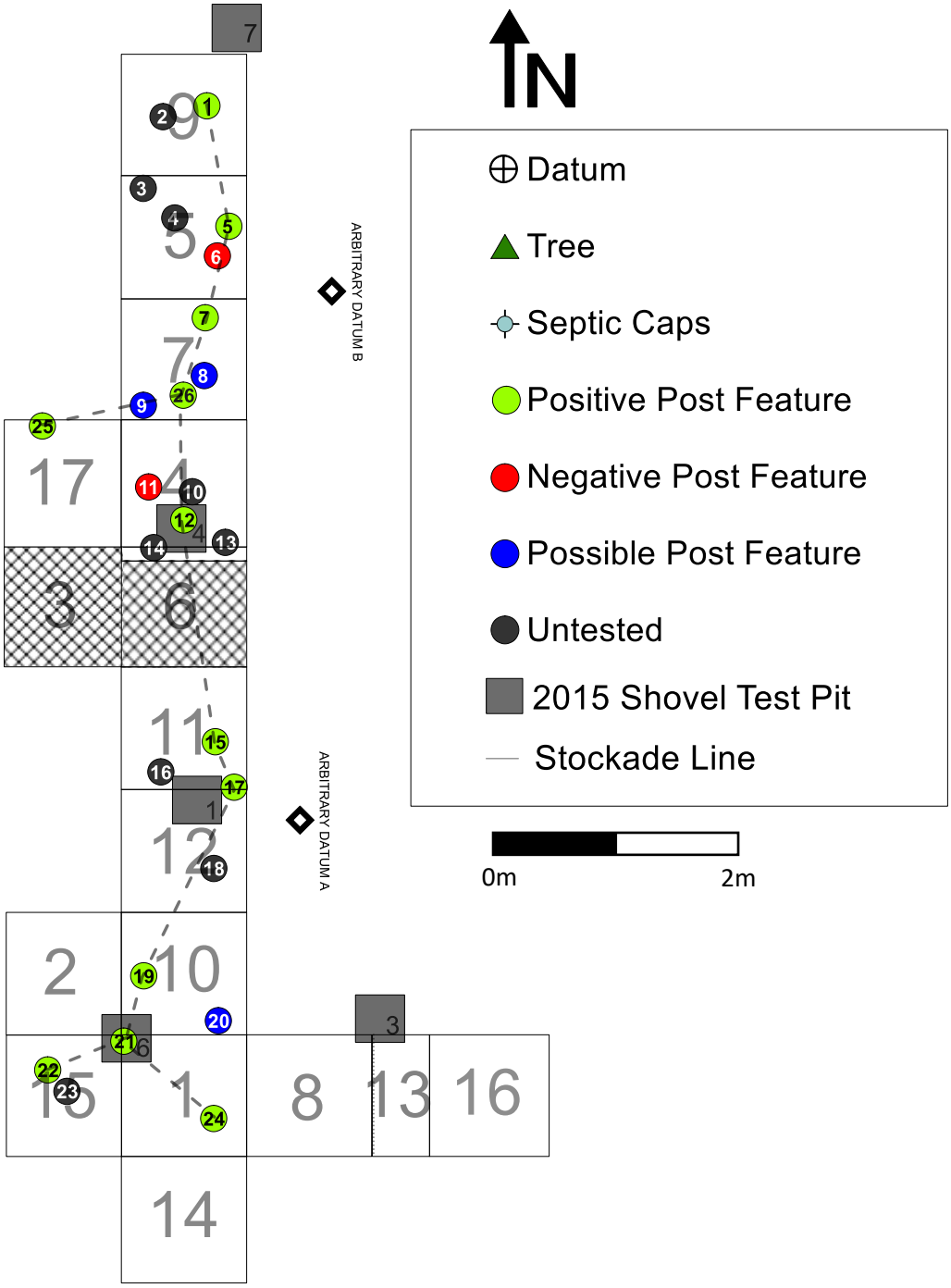
Table C. * Indicates a feature that was flagged during the gradiometer survey for ground truthing.

Appendix D: 2016 Site Maps





Feature map with all non-negative features connected.



Feature map with only confirmed features connected.

Appendix E: 1938 Aerial Photograph

Aerial Photos 1938
John R. Borchert Map Library. Stearns County Minnesota Aerial Survey [air photo]. 1:20,000. Photo BJN-10-55.