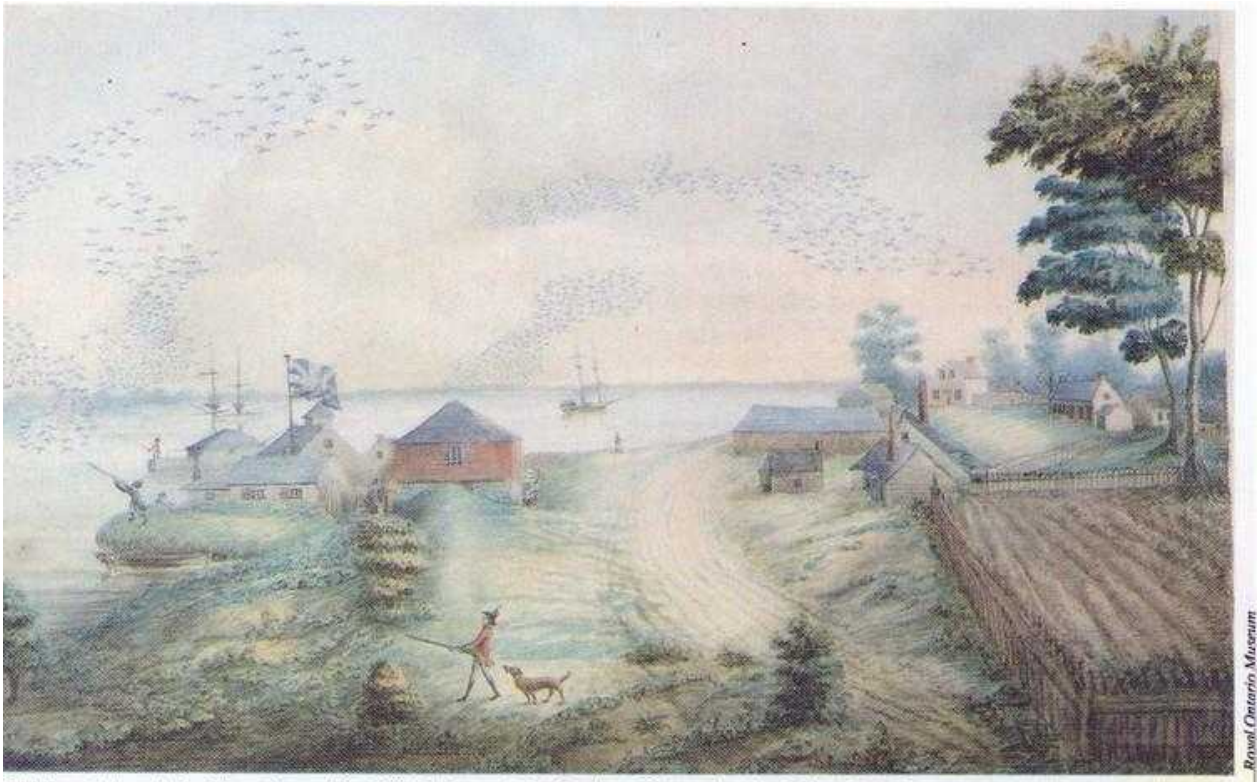
2017 ARCHAEOLOGICAL INVESTIGATIONS AT OLD FORT ERIE N.H.S. (AfGr-3)



Old Fort Erie and the Migrations of the Wild Pidgeon in the Spring . Watercolour by Edward Walsh, 1804.

WILFRID LAURIER UNIVERSITY ARCHAEOLOGICAL FIELD SCHOOL

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APRIL 28, 2020

LICENCE NO. P048-0103-2017

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Acknowledgements

The author wishes to extend a thank you to everyone involved in the project for their contributions to making 2017 a successful season. I particularly want to thank Jim Hill, Superintendent of Heritage, Niagara Parks Commission, and Travis Hill, Site Manager, Old Fort Erie, whose support and genuine interest in the project was evident from the initial planning stages and continues to the present. I value greatly their knowledge of, and expertise in, War of 1812, military history and Fort Erie history, specifically. I also wish to acknowledge the Fort interpretative staff for their assistance in so many ways during the project, and all NPC grounds crew employees for assisting with site preparation, maintenance, and clean-up.

My teaching assistants for the project, Owen Harvey, Laura Inthof and Kim Tobin, were indispensable for the day-to-day operations in the field and the lab and much credit is owed to them for their professionalism in ensuring that the daily operations ran smoothly.

Many volunteers also contributed to the project in so many ways, from excavation and survey, to post-excavation analysis. Former Laurier student Don Patrick assisted with the field excavation; continuing Laurier students Serena DiBiase, Brooke Harrison, Victoria Mance, Sydney McGovern, Steven McPhail, Carli Perri, Jordan Streb, and Colleen Tamblyn spent hours in the lab processing the thousands of objects found. Work-Study students Shane Teesdale and Carli Perri, and volunteer Jordan Streb digitized field drawings used in the report in Appendix B.

Thanks to the students of the fall 2017 AR217 Archaeological Laboratory class for cataloguing the bulk of the collections from various units excavated.

Thanks to my good friend Richard Gerrard, Historian, Heritage Toronto, for providing valuable information on the history of specific regiments and identification of artifacts found during the 2017 season.

I also want to thank my wife, Dr. Lisabeth Robinson, Historian at the Western Reserve Academy, Ohio, for her interest and support.

Finally, a special thank you goes out to all students involved in the project this year. It is due to their hard work that I can report on the discoveries discussed below.

I offer my sincere apologies to any whom I have omitted inadvertently from these acknowledgments.

1.0 Introduction

In Spring 2017 a Wilfrid Laurier University archaeological field school was conducted on the site of Old Fort Erie, N.H.S. under the direction of Dr. John Triggs, Department of Archaeology and Heritage Studies. The field school ran for six weeks from May 8 - June 16 and was carried out with the assistance of 21 students, a return volunteer, three teaching assistants and the project Director. The 2017 season marked the fourth project on the site of Old Fort Erie in which research archaeology was conducted with the objective of addressing specific questions posed before the field work began (Triggs 2015a, 2015b). The overall purpose of the fourth season of excavation was to continue to investigate an area to the south of the reconstructed fort which was occupied during the 18th century when the first Fort Erie stood on the lakeshore. The area was also within the American encampment during the siege in the summer and fall of 1814 and promised to provide evidence of the occupation by American forces at that time. The general area is depicted on many 18th and 19th century maps, and the objective was to determine if evidence remained of both the 18th century occupation of the oldest British military site in the province, and the siege itself.

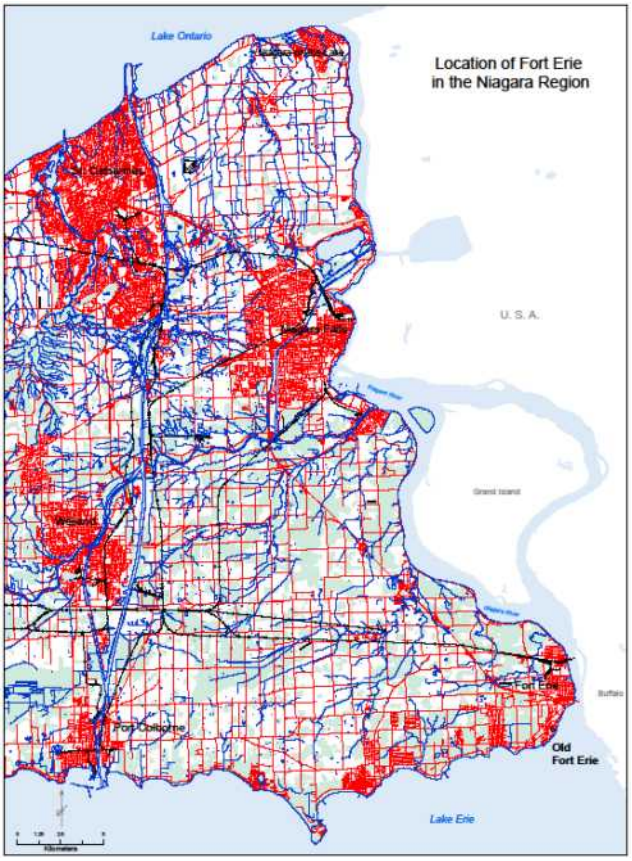

Figure 1 General location map showing Fort Erie at mouth of Niagara River.

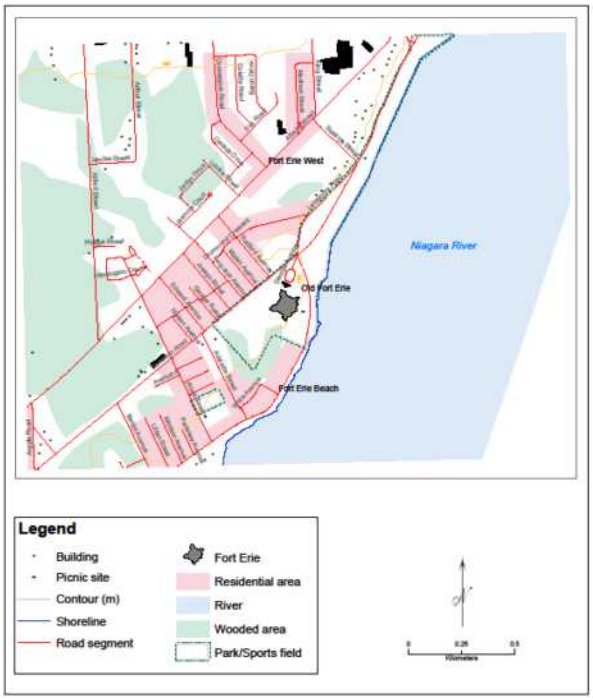

Figure 2 Old Fort Erie within Town of Fort Erie.

In preparation for the work, the site grid used in the 2012, 2013 and 2015 excavations was re-established. The main north-south baseline along the 1050E line was surveyed and several stakes were established including the site datum at 954N/1050E. Stakes were set in in the following locations:

900N	**1050E**	**Main N-S Baseline**
901N	1050E	Main N-S Baseline
902N	1050E	Main N-S Baseline
903N	1050E	Main N-S Baseline
904N	1050E	Main N-S Baseline
905N	1050E	Main N-S Baseline
907N	1050E	Main N-S Baseline
908N	1050E	Main N-S Baseline
909N	1050E	Main N-S Baseline
910N	1050E	Main N-S Baseline
911N	1050E	Main N-S Baseline
912N	1050E	Main N-S Baseline
913N	1050E	Main N-S Baseline
914N	1050E	Main N-S Baseline
915N	1050E	Main N-S Baseline
916N	1050E	Main N-S Baseline
917N	1050E	Main N-S Baseline
918N	1050E	Main N-S Baseline
919N	1050E	Main N-S Baseline
920N	1050E	Main N-S Baseline
922N	1050E	Main N-S Baseline
924N	1050E	Main N-S Baseline
926N	1050E	Main N-S Baseline
928N	1050E	Main N-S Baseline
930N	1050E	Main N-S Baseline
935N	1050E	Main N-S Baseline
940N	1050E	Main N-S Baseline
945N	1050E	Main N-S Baseline
950N	1050E	Main N-S Baseline
954N	1050E	Site Datum

Field investigation began on May 8 by first conducting a Stage 2 test pitting survey. As in 2015 the test survey was carried out in the open area to the south and west of the extant Fort Erie, the second fort. Based on the results of the survey three excavation areas were designated as Areas 1, 2, and 3 and several excavation Units were laid in for each area. Early in the excavation the findings were promising as evidence of the 18th century occupation was found just below the sod layer. Dating was based on several mid-late 18th century ceramics along with wrought nails and window glass which suggested the presence of structures in the general area. The Stage 2 test pitting assessment is described below in Section 4.0

Over 5 weeks, from May 15 to June 16, manual excavation of 17 Units was carried out within Areas 1, 2, and 3: Area 1, Units A-D; Area 2, Units F, G, H, J, K; Area 3, Units M, N, P, Q, R, S, and T (Figure 3). Placement of excavation Units was based on archaeological features revealed during the 2015

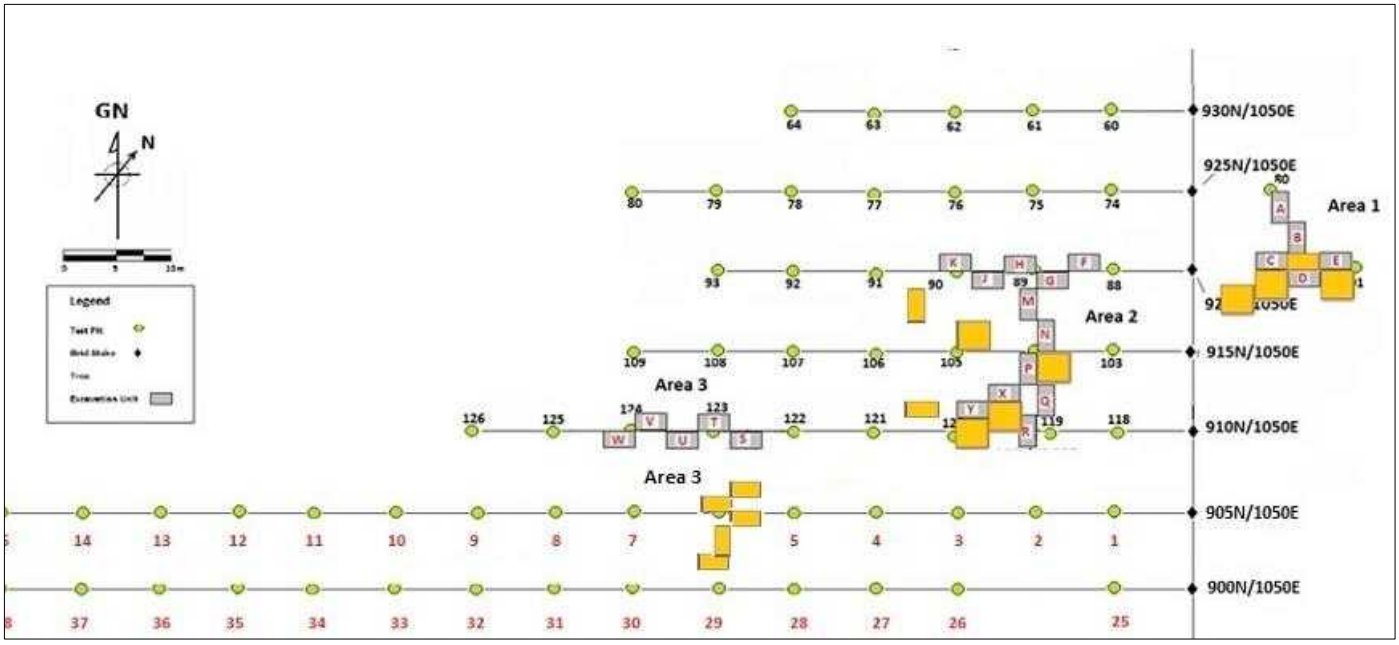

Figure 3 Plan showing excavation areas and Units. Not all test pits are shown. These are discussed further in Section 4.0.

excavations and areas of high artifact concentration identified during the 2017 test-pitting assessment. Students were assigned a specific unit, and over the course of the next 5 weeks, excavation proceeded using a stratigraphic excavation methodology and recording system based on the Harris matrix method (Harris 1979). In each area evidence of the 18th century occupation of the site was found.

To recap, in 2015 Area 1 yielded evidence of a blacksmith shop dating to the 1780s, and possibly earlier, up to the construction of the new Fort Erie in 1805. Architectural elements such as walls, partitions, a forge and several other features were documented during the excavation in addition to thousands of artifacts that provided a picture of life at the fort in the last third of the 18th century. Area 2 was characterized by a complex stratigraphic sequence in which a succession of buildings was built in the same location. The discovery of a masonry double fireplace and associated artifacts suggested that

the structure was an officers' quarters dating to the Period of the first Fort Erie. In Area 3 evidence indicating the presence of a nearby structure dating to the period of the first fort was found in several excavation units. Features such as a palisade trench and fence-line, posts, and pits, together with artifacts dating from the last third of the 18th century, all suggested that an officer's quarters was located in the general area.

In addition to these findings, evidence of pre-contact period occupation spanning thousands of years from the late Archaic to the Late Woodland Periods was also found in all three Areas. Diagnostic chert projectile points and ceramics, together with settlement features such as pits and posts, pointed to an intensive occupation and re-occupation of the area by groups of people for millennia.

Unlike the 2012 and 2013 excavations, evidence of the siege from the 2015 and 2017 investigation is sparse. A few American military buttons with identifying insignia were recovered but the findings are much less in evidence than in the earlier projects. As mentioned in all previous reports it is important to recognize that artifacts dating to this Period in the fort's history, and all previous periods, is present at a minimal depth below the modern ground surface. It is for this reason that modern archaeological methods must be used to recover artifacts from carefully documented layers in precisely located excavation units by employing stratigraphic excavation methods. Artifacts found in undisturbed contexts are the unique purview of archaeology. They provide tangible evidence of the daily activities of the people stationed at the fort as well as other, sometimes unexpected information.

The following report documents the results of the 2017 project. Presented are the analysis and interpretation of artifacts and stratigraphic layers within an archaeological chronology represented by Periods defined across the site (Areas 1, 2, and 3). Periods discussed in the report are the same as those defined in the all previous reports (2013, 2015, and 2017) for cross-comparison. The main distinction between earlier excavations and the 2017 investigation is that the latest work yielded substantial archaeological evidence recovered from layers and features dating to the period prior to the war of 1812 when Fort Erie served as the sentinel fort guarding the approach to the Niagara River between 1764 and 1805. The results from each excavation area are discussed in detail below.

Figure 4 Drone image of Areas 1, 2 and 3 from Wilfrid Laurier University excavations in 2017. Lakeshore road to right. North is to top of page. Old Fort Erie is to upper left.

The 21 students for the 2017 field school were:

Karolina Brozy	Area 2 Unit G
Dawn Chan	Area 2 Unit G
Graham Costain	Area 1 Unit D
Serena DiBiase	Area 2 Unit K
Brooke Harrison	Area 1 Unit D
Sean Horricks	Area 2 Unit F
Jesse Hume	Area 1 Unit A
Joseph Iyengar	Area 2 Unit K
Steven McPhail	Area 2 Unit J
Kelsea Miller	Area 3 Unit P, S
Brianagh Pagazani	Area 3 Unit M, S
Simonetta Pallotta	Area 1 Unit C
Carli Perri	Area 2 Unit J
Caitlyn Roe	Area 1 Unit B
Antiy-Demian Savov	Area 3 Unit Q, T
Jordan Streb	Area 3 Unit N, T
Colleen Tamblyn	Area 1 Unit C
Emma Walsh	Area 2 Unit F
Lauren Yates	Area 1 Unit B
Ty Martinec	Area 2 Unit E (Advanced student)
Curtis Garde	Area 2 Unit H (Advanced student)
Don Patrick	Area 3 Unit R (volunteer)

2.0 Environmental Context

Fort Erie is situated in the Haldimand Clay Plain physiographic region, specifically in the sub-region referred to as the Niagara River Valley, a flood plain about 400 metres wide (Chapman and Putnum 1984). Overlying the sedimentary upper Silurian and lower Devonian age bedrock geology, the clay plain in the region of the fort is characterized by a very compact, glacio-lacustrine clay deposit varying in thickness from a few centimetres closer to the lakeshore to at least 40 centimetres in the vicinity of the 2012 excavations based on test pit excavations in two units (Fanning's Battery, Unit E and Western Redoubt, Unit A). The most significant outcrops of the bedrock geology are the Onondaga Formation and the Bois Blanc Formation, both sources of cherty limestone. Onondaga chert, the most abundant natural material from which chert was quarried by aboriginal peoples, is available in outcrops on the north shore of Lake Erie near the fort and for about 100 kilometres west to Nanticoke.

Situated only a few metres from the shoreline of Lake Erie, the land now comprising Fort Erie National Historic Site has been subject to Periodic episodes of inundation due to rising lake levels. Historically, lake levels vary as much as a metre annually although rises of as much as 2.4 metres (roughly 8 feet) have been recorded (MacDonald and Cooper 2006: 11). In fact, the destruction of the first fort built in 1764 is directly attributable to damage from ice and fluctuating lake levels in the last third of the 18th century (see Historical Background, Section 3.0). The site of the 2012 excavation ranges from approximately 177 to 180 metres elevation, compared to the lake level of about 174 metres ASL. This area would never have been inundated even with a rise in lake levels of as much as 2.4 metres. Underlying sediments in the vicinity of the 2012 excavation are therefore all glacio-lacustrine clay deposits. Soils in the region of the fort are referred to as luvisolic, characterized by slightly acidic A and B horizons formed over calcareous parent materials. Natural sediment formation (the clay-loam A-horizon) over the clay subsoil (the B-horizon) varies in thickness, depending on the location of the Units, from 0 to 5 centimetres. However, this may not be representative of the actual A-horizon thickness in an undisturbed state. The thinness of the A-horizon in the excavation areas is due to heavy foot traffic during the siege which acted to compress the natural ground surface. Also, the absence of the A-horizon in some areas is due to the excavation and subsequent re-deposition of the original A-horizon for the creation of the defensive earthwork. This may have taken place over a buffer area running parallel to and adjacent to the earthwork, examined in 2012, for several metres yet to be determined. The scraping of the A-horizon in this fashion - in order to build a sufficiently high earthwork – was due to the extremely difficult task of excavating the very densely compact natural glacio-lacustrine clay subsoil, which necessitated 'borrowing' surface soil from a zone adjacent to the mound.

The topography of the northwestern area of the site, where the2012 excavations were carried out, is characterized by a relatively flat field to the grid-north of the excavation area – the landward side of the earthwork. This stretches from the north side of the earthwork for 50-80 metres to the parking lot and Lakeshore. To the south the land gently slopes down as much as 5 metres in elevation to the lakeshore on the south side of Lakeshore Road. Here a bluff about 1 metre high on average borders a relatively flat limestone shelf located a few centimetres above the current lake level. On the western side of the historic site boundary is a tree line and wooded area about 40 metres wide, beyond which are several houses and yards. The fort itself is located on the east side of the excavation area. Overall,

the area is poorly drained and in early spring groundwater can be heard flowing over the impermeable clay subsoil down slope towards the lake shore.

Vegetation in the area during the Period of the siege in the early 19th century was likely mostly deciduous, although timber descriptions in Robert Gourlay's Statistical Account for Upper Canada in 1817 do indicate that local variations were common and a mixed conifer-hardwood forest may have also been present. Fort Erie National Historic Site is located in the most northern extent of the Carolinian biotic province, a zone more characteristic of areas south of Lake Erie. Clues as to the natural forest cover and botanical species present are available in historical sources such as diaries, travel journals, surveyor's notebooks, and maps compiled during the late 18th and 19th centuries (MacDonald and Cooper 2006: 19). Wood charcoal recovered during excavations at the Peace Bridge site by Archaeological Services Inc. from various contexts indicate that the area was dominated by ash, elm and oak, with lesser quantities of maple, beech, ironwood, white pine and larch (MacDonald and Cooper 2006: 22). Food species in the southeastern Niagara Region, available to aboriginal populations, and also during early settlement, included nuts (black walnut, butternut, hickory, oak, beech, and chestnut), berries (raspberries, blackberries, elderberry, strawberry, blueberry and cranberry), fruits (cherry, plum, crab apple, and currant) and cultivated vegetables. A wide variety of medicinal plants were also available (MacDonald and Cooper 2006: 25).

Fauna available to aboriginal populations, and early settlers, would have included a wide array of forest-dwelling animals. Among these were large mammals such as moose, white-tailed deer, wapiti

Figure 5 Old Fort Erie With the Migration of Wild Pigeons, dated 1804; by Edward Walsh, Sigmund Samuel Collection, 952.218, ROM2006 7733 1.

(elk), black bear, and small mammals such as raccoon, beaver, muskrat, snowshoe hare, cottontail,

marten, fisher, river otters, weasels, foxes, wolf, cougar, bobcat, lynx, woodchuck, chipmunk and grey squirrel (MacDonald and Cooper 2006: 27-28). Waterfowl would also have been available and included the passenger pigeon in profusion. A watercolour from 1804 by Edward Walsh shows hunters shooting into the overhead flocks of these birds which were ultimately hunted to extinction by the close of the 19th century (Figure 5). Also available were wild turkey, various species of ducks and geese. A wide variety of fish would also have been available to aboriginal populations and settlers. An analysis of the faunal remains from the Fort Erie 2015 excavations has yet to be carried out but it is clear that mammal, bird and fish remains are present in the sample, although the degree to which domesticated and wild species were relied upon during the siege remains to be determined.

3.0 Historical Context

by Dr. Adam Shoalts[1]

Fort Erie is the oldest British military fort in what is now Ontario.[2] For a quarter of a millennium, under different guises, first as a modest depot, then as a stone fortress, later as ruins, and finally as a reconstructed tourist attraction, it has stood sentinel over the Niagara River. Established in 1764 after the Treaty of Paris formally ceded New France to the British Crown, the early Fort Erie was a remote outpost of the British Empire deep in the North American wilderness. Naturally, the British had found it necessary to construct a series of forts in the newly acquired Great Lakes territory to control the area and the lucrative fur trade. This became a matter of urgency with Pontiac's uprising against British rule in 1763.

John Montressor, a captain in the Royal Engineers, was tasked with selecting a suitable location for a fort somewhere near the headwaters of the Niagara River at Lake Erie, and overseeing its construction. Work commenced in the summer of 1764, with five hundred men labouring on the fort. Significantly, this work force consisted of a mix of British regular troops and colonial volunteer Units, including two battalions of Connecticut and New Jersey Provincial forces. Such a mix of Units offers the possibility of testing Andrew Farry's spatial model of British regular and colonial irregular army relations that assumes "significant distinctions will characterize small-scale provincial and British contexts," including differences in ceramics, lead shot, and other distinguishable patterns, which Farry found on Seven Years' War military sites in New York state where both British and colonial forces served.[3] If Farry's pattern holds, it may also prove possible to test it against the later Fort Erie, where there was a mix of militia and regular troops, including during the 1814 siege.

While a historical plaque on display at Fort Erie today states that there were two early forts in addition to the 1805 stone fort, this is unlikely. Certainly, the written evidence makes clear that this original fort was in an almost constant state of disrepair owing to lake storms and ice flows, but as David Owen demonstrated in his history of the site there is no reason to think the fort was ever entirely abandoned or completely rebuilt before 1805.[4] Descriptions of this early fort are limited to sparse military records, a few paintings, and the occasional traveler's terse description (including ones penned by Robert Rogers and Lady Simcoe). Thus, little is known of this original fort, and it is hoped that archaeology will be able to shed more light on it. The almost constant repair work throughout the fort's troubled existence from 1764 to circa 1805 ought to have left behind a rich archaeological record. GIS mapping technology has allowed for Period maps of the original fort to be superimposed on contemporary aerial photographs, using the barracks and demi-bastions of the reconstructed second

[1] This paper was prepared as a requirement of a Graduate Directed Study course under the supervision of Dr. John Triggs, Wilfrid Laurier University, Dept. of Archaeology and Classical Studies, in fall 2012.
[2] Older British forts were established on Hudson Bay and James Bay, but these were built by the Hudson's Bay Company, a private corporation, rather than the British military.
[3] Andrew Farry, "Regulars and "Irregulars": British and Provincial Variability among Eighteenth-Century Military Frontiers," *Historical Archaeology* 2005, 39(2):16.
[4] David A. Owen, *Historic Fort Erie 1764-1823: An Historic Guide* (Niagara Parks Commission: 1986), 18-19.

fort as location markers. This gives an approximate idea of where the bastions and walls of the original fort were located in relation to the modern landscape. Some of the major unresolved questions about this first fort are to what extent it functioned as a fur trade depot; how it was laid out and what buildings and barracks it contained, what it contained in the way of gun batteries and powder magazines, and if there is any evidence of ship-building activity at the site. Another major unresolved question about this original fort involves its somewhat mysterious depiction on three maps as apparently missing one half. Maps dating to 1794, 1798, and 1803 all display Fort Erie as consisting of only two landward facing bastions, with the waterside of the fort nonexistent. A letter dated May 20, 1781 stated that the fort "…is in general in a bad state of defense. *The face next the Lake is laid clear open by the late storms*, and the whole Fort must be picketed. The Artificers are now repairing the works…"[5] It would seem extraordinary that a storm could have "laid clear open" the fort's walls, but this is apparently the case. In spring when the ice breaks up on Lake Erie, large ice flows drift down the Niagara River that in a storm can inflict considerable damage to any structures fronting the river. A June 24, 1781 report noted that, "Fort Erie (has been) new(ly) picketted, and the Stonewall, next the Lake repair'd…"[6] While repaired, the fact that this wall and lakeside bastions are missing from the 1794, 1798, and 1803 maps indicate that the fort was regularly damaged by ice and storms. This is also clear from the documentary record. Accounts written throughout the 1780s describe the fort as in "ruins."[7] A report dated December 6, 1788 provides more detail: "The whole of Fort Erie is in so wretched a state and altogether so much in ruins that it is not easy to say which is the worst part of it…*the front next the water which has a stone wall has been washed away by the encroachment of the Lake*."[8] In the summer of 1790 one Major Robert Matthews reported of the fort that, "The work consists of four small Bastions, two of bad mason work washed by the lake, and two on the land side stockaded, it is quite in ruin and was originally very improperly placed."[9] If storms and ice really did wash away on multiple occasions the fort's waterside stone wall, perhaps some of the stone may still be found lying in the shallow waters of the river. At any rate, given that a 1792 report informs us that the fort contained a blockhouse that was, "54 feet long 30 feet wide…the upper floor projects two feet from the lower part which is built of stone" some archaeological evidence of these structures must presumably remain.[10] Furthermore, a civilian visitor to the fort in 1796 noted in his journal that adjoining the fort were, "extensive stores as at Chippeway, and about half a dozen miserable little dwellings."[11] Two paintings of the fort also depict these buildings adjacent to the fort as well as gardens.

The maps also indicate that two wharfs existed below the fort. The cribbing of one these wharfs, labeled as "Grant's & Kirby's wharf" on an 1818 map, is still visible today in the waters of the Niagara River. An 1803 map also displays a "merchant's store" adjacent to this wharf, and this building appears on various subsequent maps. The other wharf is depicted as almost directly below the site of the second Fort Erie and is labeled on an 1818 map as the government wharf. Given the extensive damage from ice

[5] Owen, *Historic Fort Erie*, 31.
[6] Ibid.
[7] Owens, 31-32.
[8] Owens, 32.
[9] Owens, 33.
[10] Owens, 34.
[11] Owens, 39.

to buildings and to the original fort, one wonders if archaeology might reveal that considerable local ship and boat maintenance took place near these wharfs.

By 1805 the British army began construction of a new stone fort in a location above the old ruined fort, a safe distance from the ravages of the Niagara River and Lake Erie. While we know much more about the construction, design and internal layout of this second Fort Erie, there are still major gaps in our knowledge of it. For example, archaeology could possibly reveal the location and extent of the fort's stables, which must have existed but are not mentioned in any of the written sources. It is also not known from the documentary record whether or not Fort Erie had a blacksmith shop. Based on other British forts in Canada, such as Fort St. Joseph, it seems likely that Fort Erie did.[12] In the absence of documentary sources, only archaeology will be able to yield any knowledge about the fort's blacksmith shop and stables. Such findings, in addition to what we may discover about any ship repairs and local gardens, ought to allow for a much better understanding of the extent to which Fort Erie functioned as a self-sufficient entity.[13] The 1794 and 1798 maps of Fort Erie reveal plans for merchant shops clustered along the riverfront. Most of these shops did not come to fruition, yet some buildings, such as the King's Store, we know from later maps did exist. It is hoped that future archaeology will shed light on these neglected aspects of the site's history. Ground-penetrating radar and magnetometer surveys conducted at the site, in conjunction with the Period maps superimposed over contemporary satellite images, may offer the best means of detecting the remains of such structures. Conversely, whereas other archaeological investigations of nineteenth century battlefields have relied on metal dictator surveys (Sivilich), this would likely prove of less utility at Fort Erie due to the unfortunately pervasive practice of metal detector assisted pot-hunting over the years.[14]

Despite this unfortunate tendency, archaeological fieldwork in 2012 uncovered considerable numbers of musket and rifle balls, buck shot and birdshot. While most, if not all, of this ordnance is associated with the Siege of Fort Erie that occurred in the summer of 1814, the birdshot is a reminder that troops in peacetime at Fort Erie engaged in hunting. An 1804 painting by Edward Walsh, a surgeon in the 49th regiment of foot, depicts a man hunting passenger pigeons outside Fort Erie. The extent to which local game supplemented military rations at Fort Erie might be determined if the fort's refuse pits were to be excavated. It is also interesting to speculate to what extent soldiers at Fort Erie supplemented their diets by fishing in the rich waters of the Niagara River and Lake Erie. That such activity took place, particularly in the fort's early history, seems likely. It is also known that the Fort's garrison kept gardens outside the fort's walls, but detailed written evidence for this is scant.[15]

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[12] John D. Light and Henry Unglik, *A Frontier Fur Trade Blacksmith Shop 1796 -1812*. (National Historic Parks and Sites, Environment Canada, 1987).

[13] Steven L. De Vore demonstrates that nineteenth century wilderness forts in the American mid-west functioned as largely self-sufficient entities, with gunsmiths, blacksmiths, carpenters, and other craftsmen fulfilling the fort's needs. See Steven L. De Vore, "Fur Trade Era Blacksmith Shops at Fort Union Trading North Dakota Post National Historic Site," *Historical Archaeology* Vol. 24, No. 3, 1990. Given Fort Erie's strategic location on the Great Lakes trade route, it was presumably less self-sufficient and more dependent on trade routes.

[14] Daniel M. Sivilich," Analyzing Musket Balls to interpret a Revolutionary War Site" *Historical Archaeology* Vol. 30, No. 2, 1996.

[15] Excavations in 2013 on the south side of the fort opposite the main gate did indeed reveal evidence of the gardens dating to the pre-war of 1812 Period. Another map in Richard Feltoe, *The Ashes of War: The Fight for*

Archaeology could possibly shed more light on what the living conditions were (in both peace and war) at the fort. For example, is it possible that soldiers, with their military rations supplemented by wild game, fish, and vegetable gardens, actually enjoyed distinctly better diets than their civilian counterparts in Britain Such a finding might also have implications for our understanding of troop morale and desertion rates among soldiers at Fort Erie.

It is also believed that in peacetime a separate officer's quarters existed outside the Fort. However, the documentary record offers scant clues about such an establishment. If the quarters could be located through a magnetometer or ground-penetrating radar survey, we would learn not only more about the fort's layout, but if an adjacent refuse pit were to be discovered, useful information about differences in diet between officers and enlisted men stationed at Fort Erie might be gleaned from it. As well, we could possibly confirm (or tenuously deny) the accuracy of the reconstructed officer's quarters at the fort today, which are decorated with white-tail deer hides and antlers on the assumption that British officers stationed at the fort hunted deer in their leisure time.

The War of 1812 and the Siege of Fort Erie:

Fort Erie was the scene of considerable action in the War of 1812. Its garrison fought in November 1812 at the battle of Frenchman's Creek and its cannons and nearby batteries occasionally exchanged fire with the American side of the river. In 1813, the British evacuated the fort, leaving it temporarily in American hands as British forces abandoned the Niagara Frontier. It was apparently partially dismantled and the outbuildings burned at this time but by the end of 1813 it was back in British hands. These early incidents in the war, however, pale in comparison to the role the fort played in the bloody Niagara Campaign of 1814. That year witnessed the United States mount its third and final invasion of the Niagara Peninsula. The Siege of Fort Erie became the climax of this last full-scale invasion. It also proved to be the war's bloodiest engagement. Though exact casualties are impossible to determine, an estimated 3,000 soldiers were killed, wounded, or captured during the six weeks of fighting. The vast majority of these soldiers remained buried on the battlefield today.[16]

Prior to its final invasion in 1814 the Niagara Frontier was aptly described by one American officer as already "desolated with fire and sword" from two years of warfare.[17] On July 3, a well-trained and equipped army of 5,000 Americans rowed across the Niagara River from Buffalo under the cover of darkness, landing on the Canadian shore below Fort Erie. The capture of Fort Erie was to be the first step in their conquest of Canada. The U.S. Army, under the command of the capable General Jacob Brown, planned to march north to the shores of Lake Ontario, where they would rendezvous with the American

Upper Canada, August 1814-March 1815, (2014) also shows extensive gardens in the area surrounding the fort. Comment by J. Triggs, December 19, 2014.

[16] The only known exception are the remains of the twenty-eight soldiers excavated at Snake Hill in 1987 and returned to the United States with all due ceremony. According to Ronald Way, who oversaw the reconstruction of Fort Erie from 1937-1939, the remains of 153 men lie beneath the monument outside the fort's walls. Documents written in 1814 by various American soldiers describe digging a mass grave for the British troops killed in the explosion of the northeast demi-bastion during the August 15 night assault, and put the number of dead at around 150. Way stated that three American graves were uncovered during the restoration inside the fort, and that these soldiers were added to the mass grave, making a total tally of 153 beneath the monument.

[17] David B. Douglass, "Reminiscences of the Campaign of 1814, on the Niagara Frontier," *The Historical Magazine*, vol. II no. 1 July, 1873, 7.

fleet and from there subdue the remainder of Upper Canada. Alas for the Americans, only the capture of Fort Erie went according to plan. The fort's outnumbered garrison consisted of a mere 137 men under the command of Major Thomas Buck. Perhaps thinking that discretion is the better part of valour, Buck promptly surrendered after the exchange of only a few shots. (He was subsequently court-martialed for the surrender). On July 5, 1814, the Americans, heading north, encountered the British at Chippawa. The resulting battle proved a decisive U.S. victory. However, twenty days later the two armies clashed again at Lundy's Lane, resulting in heavy casualties for both sides and a strategic defeat for the U.S. army, as this action forced their withdrawal south to Fort Erie and scuttled any plans for further offensive operations.

Indeed, the American Army had been reduced to approximately 3,500 effective troops by August 1, 1814. With General Brown wounded, command divulged to the cautious General Ripley. Ripley initially contemplated a retreat across the Niagara to the American shore, but was persuaded to dig in at Fort Erie. American engineers had already undertaken some work to strengthen the site in July after its capture. It would now be transformed into a sprawling fortified encampment, covering some fifteen acres and stretching approximately 800 metres from the old British stone fort to Snake Hill near the Lake Erie shoreline. Eroded portions of the defensive earthwork built by the Americans linking the fort to Snake Hill are still visible on the grounds of Fort Erie today. While Benson Lossing, who visited the site in the summer of 1860, reported that the Americans had dug a double ditch and thrown the earth up into "parapet breastworks," thus far excavations have revealed the existence of only one ditch outside the earthwork.[18] Part of this ditch is still clearly visible in the woods south of the Niagara Parks Commission's property. On the other hand, Ronald Way's speculation that the Americans constructed a "firing-step" has been confirmed as accurate. Such a step, made of earth, was uncovered along the earthwork during fieldwork in 2012, which would have enabled defenders to fire over the wall[19]. Interestingly, an 1816 account of the Siege written by an American officer recalled how as an "additional precaution" the troops stationed along this earthwork were armed with pikes fashioned from captured bayonets, "designed to be used in case of a charge." The officer related that:

> "At twilight, every evening; a great number of pikes, constructed of the British bayonets which were taken on the 15th, were laid at two feet distance from each other, along the whole extent of our line. These being of a length equal to thickness of the parapet, would have been used with great effect in the event of an escalade."[20]

Indeed, one can easily imagine the utility of such a weapon for close-quarter combat in the event the British attempted to storm the works a second time. (The British officer William Drummond also preferred a naval pike for hand-to-hand combat, and carried one in lieu of his sword during the ill-fated August 15 night assault.) To date, no bayonets have been uncovered along the American earthwork but

[18] Benson J. Lossing, *The Pictorial Field-Book of the War of 1812* (New York: 1869, reprinted New York: Benchmark Publishing, 1970), 830. Excavations by Triggs in spring 2012 revealed the ditch in two areas: Fanning's Battery and the Western Redoubt. Comment by John Triggs, December 19, 2014.

[19] The firing step found in Fanning's Battery East, Unit Q, is described in this report by Triggs. Comment by John Triggs, December 19, 2014.

[20] "Attack on Fort Erie," *Naval and Military Chronicle of the United States,* (Philadelphia: Vol. 1 no. II February 1816), 109.

unspent musket and rifle balls, buckshot, and buttons were uncovered along this defensive line[21]. Also uncovered was plenty of charcoal, suggesting that soldiers may have cooked their meals within the shelter offered by the earthwork and perpendicular traverses[22]. As an outer defense, the Americans constructed a line of abatis. Finally, for additional firepower and support, three U.S. warships, the Ohio, Porcupine, and Somers were anchored in the waters of Lake Erie just south of the American position. Overall, the small original Fort Erie had been transformed into a formidable fortress, succinctly described by British Lieutenant John Le Couteur as an "ugly customer." The British, under Canadian-born Lieutenant General Gordon Drummond, had only approximately 3,500 men with which to attack the fort.

Near the waters of Lake Erie was a natural sand mound, called Snake Hill, which the Americans transformed into a fortified redoubt. Placed under the command of Captain Towson, this well-defended redoubt formed the left of the American position. The extreme right of the American position extended from Fort Erie's ravelin to the river. Here an earthen wall was thrown up to link the fort to a gun Battery under the command of Captain David Douglass, a twenty-four year old, Yale-educated American artillery officer. Portions of this earthwork, said by Lossing to have originally been seven feet high, are still visible today.[23] Douglass described the site of his Battery as "a hillock, partly natural and partly formed by the ruins of an old lime-kiln, between the fort and the lake, nearest the later, eight or ten feet above the water-level, and about as much below the site of the fort."[24] The lime-kiln may explain the ruins of Douglass' Battery as depicted by Lossing in the summer of 1860. Lossing shows a considerable structure consisting of crumbling stone. Fortuitously for our purposes, Lossing's illustration shows these ruins east of the river road, which, provided the road is in the same place today, would mean Douglass' Battery is an area that can be excavated.[25]

In a letter dated September 12, 1814, Douglass gives more detail about his Battery. He described the site of his Battery as: "…originally a sort of arched vault or magazine, raised above ground, and opening toward the water. In the course of one night, I dug away one side into a loose sort of platform, and placed my gun there..."[26] There is no mention of it as originally a lime-kiln in this letter. Instead Douglass seems to suggest that it was a powder magazine. Possibly it had once been a lime-kiln that was subsequently converted to a powder magazine, and then converted a third-time by Douglass into a Battery. These tantalizing questions, however, will only be resolved by an archaeological

[21] In the Western Redoubt excavation area a line of 'posts' were found in the ditch parallel to the earthwork in Unit M. The context of these suggests that they may in fact by the line of pikes mentioned in the 1816 account by the American officer. Comment added by John Triggs, December 19, 2014.
[22] As discussed in the current report, the charcoal is very likely the product of the destruction of the building by a direct mortar bomb hit on September 16 or 17. Comments added by John Triggs, December 19, 2014.
[23] Benson J. Lossing, *The Pictorial Field-Book of the War of 1812* (New York: 1869, reprinted New York: Benchmark Publishing, 1970), 829.
[24] David B. Douglass, "Reminiscences of the Campaign of 1814, on the Niagara Frontier," *The Historical Magazine*, vol. II no. 1 July, 1873, 128.

[26] Douglass, 129.

investigation of the site.[27] Fortunately, from Douglass' written account of his Battery, coupled with historic maps, GIS, and the eroded earthwork still visible today, it ought to be possible with a fair degree of confidence to determine the location of the Battery.

Even more interestingly, Douglass provides detail about what he and his men did by September to protect themselves from the deadly British bombardment:

> On the right of the platform, the ground had a considerable descent; and here I set all hands to work, as near the gun as possible. In a few days, they had made a sort of cellar, ten feet broad and twenty feet long, neatly and firmly walled up with sods. Adjoining this, they dug another similar one, walled in the same way. I caused the whole to be covered with a layer of logs; the cracks filled up with good mortar; and a second layer of logs to be placed over this. The men live in the large part and I in the smaller. I can enjoy the occasional privilege of a candle, in the evening; while those who live in tents are obliged to put their lights out, soon after dark. We are perfectly secure from any kind of annoyance the enemy can send against us; and, on the whole, they are considered about the most comfortable quarters in camp.[28]

Such a structure would be ideal for archaeological investigation. Indeed, while Douglass notes the "cellar" dimensions as "ten feet broad and twenty feet wide" he curiously neglects to write how deep it was. Stratigraphy will have to answer this question. It will also be of considerable interest to see if there is any evidence that the British gunners targeted this location.[29] We now know from the archaeological record that the British guns hit a building located along the earthwork connecting the stone fort to Snake Hill.[30] Almost certainly, given the prominence Douglass' Battery had in firing on the British lines (something Douglass boasted about in his account of the siege), the British gunners would have targeted his location. We may then hope to learn just how effective Douglass' cellars really were in protecting his men. It may also be wondered why, if this design proved the most secure and comfortable in the camp, the rest of the American army continued to reside above ground in tents or buildings protected by traverses. Perhaps, given Douglass' engineering expertise, archaeology will reveal that this was a complex "bomb-proof" shelter that Douglass' counterparts in the infantry lacked the skill to create. That Douglass was a capable engineer held in high esteem by General Gaines, the American commander, is clear from Gaines' correspondence. Gaines wrote of Douglass that:

> Among the many brilliant scenes which combined to disperse the clouds and darkness, and light up the dawn of that memorable morning (August 15), the defense of Douglass Battery stands rivaled by a few, and according to the relative number of the guns, surpassed by none. The youthful commander of that Battery excited my admiration. His constancy and courage, during a brisk cannonade and bombardment for several weeks…his gallantry and good conduct in defense, against a vigorous assault, by a vast superiority of numbers, are incidents which can

[27] The area of Douglass Battery was investigated by the Wilfrid Laurier Field School in spring 2013 and forms the subject of that report. Comment added by John Triggs, December 19, 2014.
[28] Douglas, 130.
[29] GIS analysis of lead shot indeed did provide evidence of British gunners targeting this position. Mortar shell fragments, a solid shot cannon ball and several British musket balls were found on the escarp side of the Battery. Comment added by Triggs, December 19, 2014.
[30] This is the structure referred to in the 2012 report as the Officers' Quarters in the Western Redoubt excavation area. Comment added by Triggs, December 19, 2014.

> never cease to be cherished in my memory, as among the most heroic and pleasing I have ever witnessed.[31]

While there are many unresolved questions concerning the siege, a major one concerns a blockhouse apparently constructed by the Americans inside Fort Erie proper. The existence of this work is known from only one written source, a reconnaissance report by Captain Romilly of the Royal Engineers, who scouted the American works after they had been abandoned and blown up on November 5, 1814. In his report dated November 10, 1814, Romilly noted that: "It appears that they constructed a work beyond the old fort, consisting of the bastions (1 and 2 in the sketch) the curtain was formed of high palisades and a log building behind them, loopholed."[32] From this description, the blockhouse would have been within what is now styled the fort's terreplein. However, the 1930s reconstruction of the fort may have destroyed all trace of this structure.

Archaeology has in fact already revealed the existence of one building used by the Americans during the siege that was not previously known about, aside from an indication of its existence on a single map.[33] This building was situated along the defensive earthwork linking Fort Erie to Snake Hill, near the vicinity of Biddle's Battery. Glass, nails, and a wrought iron door handle excavated at the site all indicate the existence of a building. Pearlware and creamware uncovered at the site reveals that it served as an officer's quarters (as common soldiers would not have had such items), and is suggestive of the fact that even in the American republic, class differences remained between officers and enlisted men. Also uncovered here was a mangled sword hilt, apparently destroyed by an explosion from a mortar round, adding further evidence that this building served as an officer's quarters. The mortar round was excavated *in situ*, and reveals a direct hit by the British gunners. This has raised the question why General Drummond lifted the siege in September, given the evident effectiveness of his bombardment.[34] In addition, large quantities of unspent musket rounds were recovered at this location, suggesting that an ammUnition chest was stored inside the building.[35]

One of the more curious finds in the proximity of this building along the earthwork was the discovery of 47 drawn glass trade beads. These beads are either evidence of aboriginal allies attached to the American force, or perhaps war loot that American soldiers took from enemy warriors they fought during the September 17 sortie or even earlier at Chippawa on July 5[36]. The American forces that crossed the Niagara River into Upper Canada on July 3 included some 500 Native warriors recruited by Congressman and militia General Peter B. Porter. However, desertions began almost immediately, with

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[31] "Attack on Fort Erie," *Naval and Military Chronicle of the United States* 117-20.

[32] Owen, 53.

[33] The structure is depicted on two maps: the November 1814 Romilly plan, and the Cranfield 1815 plan. Comment added by Triggs, December 19, 2014.

[34] This interpretation was advanced by Triggs and is discussed at length in the archaeological section of this report. Comment added by Triggs, December 19, 2014.

[35] This and other archaeological evidence is discussed in the current report. Comment added by Triggs, December 19, 2014.

[36] The found in the Western Redoubt area in Unit H are in the same context as the location of the 11th and the 22nd U.S. regiments along the entrenchment. The 11th and 22nd fought on the American left at the Battle of Chippawa on July 5 under General Ripley. In fact, the British right on this engagement was taken by the native allies.

approximately 150 of the 500 warriors returning to the U.S. following the capture of Fort Erie on July 3.[37] After the battle of Chippawa (July 5, 1814) most of the remaining Native warriors deserted the U.S. Army and returned to New York State. By the time the Siege of Fort Erie began at the start of August, Native warriors still attached to the American army numbered no more than fifty, and it is not known for how long these men remained with the army.[38] These warriors were under Porter's command, and would have been stationed with the militia during the siege. As such, they were stationed along the earthwork connecting Snake Hill to Fort Erie, but to the left of where the beads were uncovered. That location, near Biddle's Battery, would have been occupied by U.S. artillery, U.S. regular infantry (possibly the 11th and 21st regiments), and in the nearby building itself, U.S. army officers. Could the beads have come from one of these soldiers

In the War of 1812 it was common practice to loot the bodies of dead soldiers on the field of battle. Soldiers looted both for necessities as well as war trophies and for items to sell to local merchants or even their own officers. At the Battle of Chippawa American troops had ample opportUnity to loot the bodies of Native warriors and are believed to have taken souvenirs from the British dead as well. Donald Graves notes that when the American soldiers were burying the British dead after the fighting, they likely helped themselves to mementoes.[39] The American soldiers may also have claimed as trophies whatever accoutrements of the dead Native warriors that took their fancy, including jewelry made of trade beads. There is other evidence of looting bodies during the bloody 1814 Niagara campaign. Lieutenant Colonel William Drummond's body was stripped and looted after he was killed in the August 15, 1814 night assault. Jarvis Hanks, a drummer boy in the American army, recalled that:

> Drummond was laid under a cart. When I first saw him he was naked except his shirt. All the remainder of his clothing, his gold watch, sword, epaulettes, and money, had been plundered by some of our men. We even picked the pockets of those who were dead and dying in the ditch. In the course of the day, the soldier who got Drummond's watch, sold it to one of our officers, for a small sum compared with its real value.[40]

As this example makes clear, looting was as much about claiming "trophies" as it was about necessity. The same night Drummond was killed at Fort Erie, despite the appalling carnage and confusion, his subordinate Lieutenant John Le Couteur retained the presence of mind to help himself to a dead officer's scabbard in the ditch outside the fort.[41] Le Couteur had earlier claimed as the spoils of war, "a

[37] Carl Benn states that most American-allied warriors deserted the campaign after the Battle of Chippawa, returning to their homes in New York State. Carl Benn, *Iroquois in the War of 1812*, (Toronto: University of Toronto Press, 1998), 153 and 159. This is confirmed by Peter B. Porter's account.

[38] The various Nations present at the siege are listed in the Appendix of Joseph Whitehorne, *While Washington Burned: the Battle for Fort Erie, 1814*, pp. 143-144. Triggs attributes the unusual assemblage of beads to the first Nations of New York State for which there no archaeological examples in Ontario. The presence of large numbers of bird shot, suggests that these may be direct evidence of the location of the native allies, rather than booty. Comment added by Triggs, December 19, 2014

[39] Donald F. Graves, *Red Coats and Grey Jackets: The Battle of Chippawa, July 5, 1814 (*Toronto: Dundurn Press, 1994), 136.

[40] Jarvis Hanks, "The Siege of Fort Erie, August to September 1814" in *Soldiers of 1814: American Enlisted Men's Memoirs of the Niagara Campaign*. Jarvis Hanks, Amasiah Ford and Alexander McMullen; edited, with an introduction and notes by Donald E. Graves. (Youngstown, NY : Old Fort Niagara Association, Inc., 1995), 40.

[41] Lt. John Le Couteur, *Merry Hearts Make Light Days: The War of 1812 Journal of Lieutenant John Le*

capital black horse for a charger…(and) saddle & Bridle & Pistols and all."[42] Captain Douglass claimed as a trophy what he believed was the sword of Colonel Hercules Scott, apparently killed while charging his Battery. Such conduct was by no means exceptional. It was reported that after the Battle of Fort George, the Canadian and British dead were literally stripped naked by victorious Americans eager for plunder. Likewise, the Americans received similar treatment following their defeat at Beaver Dams. John Norton reportedly quipped about this affair that, "the Caughnawaga Indians fought the battle, the Mohawks or Six Nations got the plunder, and FitzGibbon got the credit."[43]

One of the most notorious cases of looting in the War of 1812 involved American soldiers stripping trophies from what they believed was the body of Tecumseh after his death at the Battle of the Thames. American soldiers not only stripped Tecumseh's body naked for war trophies, but according to first-hand accounts, actually cut pieces of skin from his body as souvenirs. It is thus not hard to imagine a U.S. soldier's haversack crammed with loot and trophies at Fort Erie, and that sometime during the four month occupation (which terminated on November 5, 1814) the beads were dropped and forgotten. On the other hand, perhaps one of the Native warriors still attached to the American force simply wandered by the location and dropped the beads there. Applying Farry's spatial model to the artifacts recovered in the vicinity of the beads might possibly provide confirmation or denial that American regular troops (as opposed to Native warriors or militia) were stationed at this location.

Fort Erie's story is a significant chapter in Canadian history. It was the site of one the country's bloodiest battles, the meeting ground for Robert Rogers and Pontiac, a strategic link in the Great Lakes chain, and a military post garrisoned from the 1764 until as late as the early 1820s. Investigating Fort Erie's long and rich history is a task that requires the tools of both the archaeologist and the historian. By skillfully employing these methods, we can hope to arrive at a more complete understanding of this important site's history.

Couteur, 104th Foot. Edited by Donald Graves. (Ottawa: Carleton University Press, 1993),190-191.

[42] Le Couteur, 127.

[43] John Norton, *The Journal of John Norton*, edited by Carl F. Klinck, (Toronto: Champlain Society, 1970), cxx.

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4.0 Stage 2 Test Pitting Survey

A total of 96 test pits were plotted on a five-metre grid spacing in the area to the west of the main excavation areas 1 and 2. All 96 test pits were marked with tent-pegs and all survey stakes were marked using flagging tape with the grid coordinate shown in indelible marker. The assessment area paralleled Lakeshore Road for a distance of about 40 metres inside the lawn and pine trees.

Figure 6 shows the location of all test pits to be excavated during the week of May 15, 2017. Grid locations are provided in the accompanying table with TP designations for provenience. All test pits were given a grid coordinate and a TP designation from 1 to 96. Students worked mostly in pairs – 10 pairs and 1 single person. Test pits were about 35 cm. in diameter and stratigraphy was recorded for each on forms. All sediment was screened through ¼" mesh and all units were excavated to subsoil.

Locations with high artifact concentrations were noted during the survey. Based on the frequency and type of finds, test pits were assigned a rank ranging from 0 (no artifacts) to 5. Several 'hot spots' were noted in Area 3 and these were used to determine the layout of excavation units for the field school students (Figure 7). Areas 1 and 2 were not test-pitted in 2017. High concentrations of material found during the Stage 2 test-pitting assessment in 2015 were used as the basis for laying in units in those areas at that time.

Tables below show the type of artifact groups found in each test pit and the accompanying frequencies. Almost 3500 artifacts were documented during the assessment.

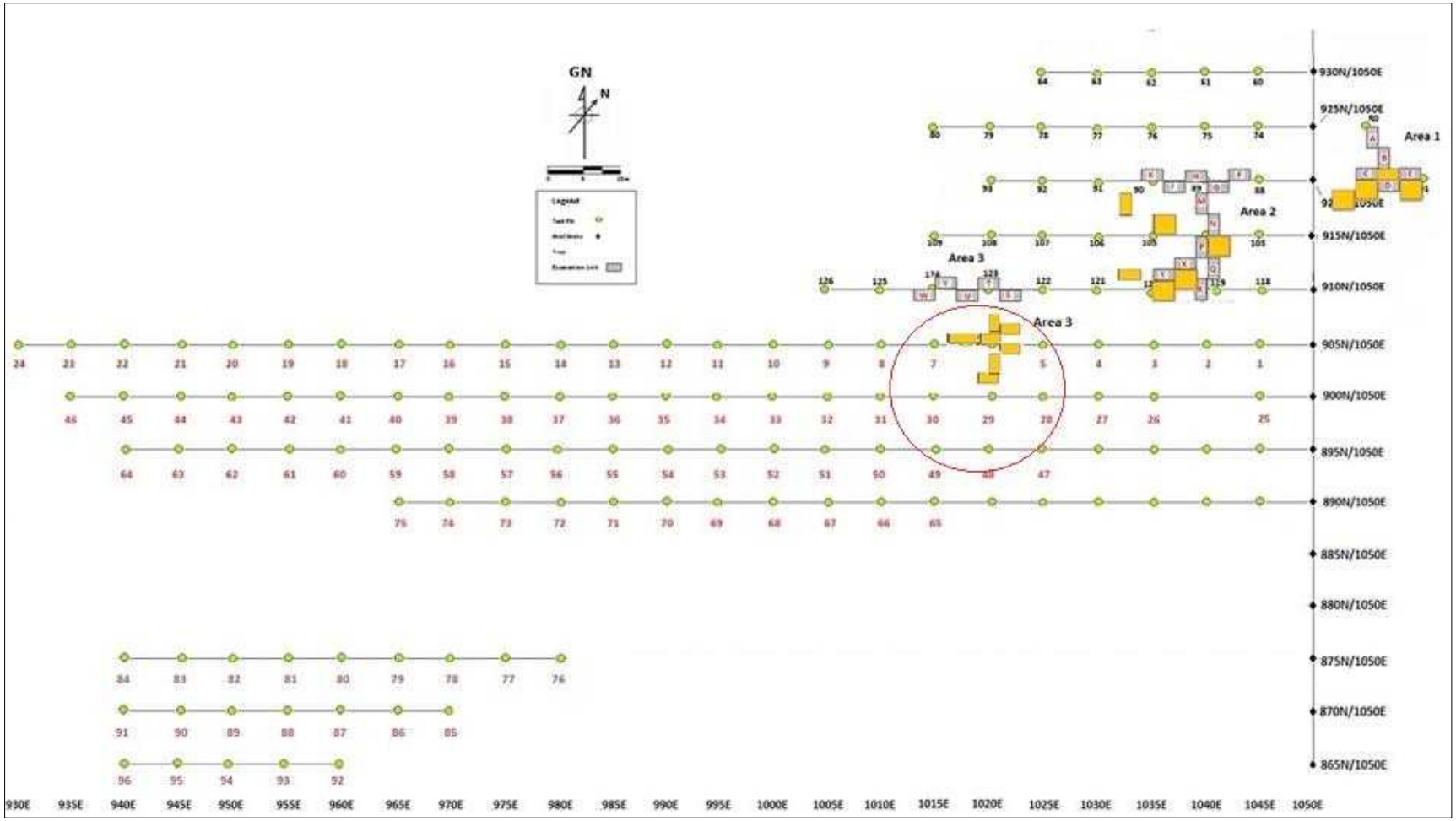


Figure 6 Test pits from 2017 Stage 2 assessment. Circle indicates high concentration of artifacts in Area 3.

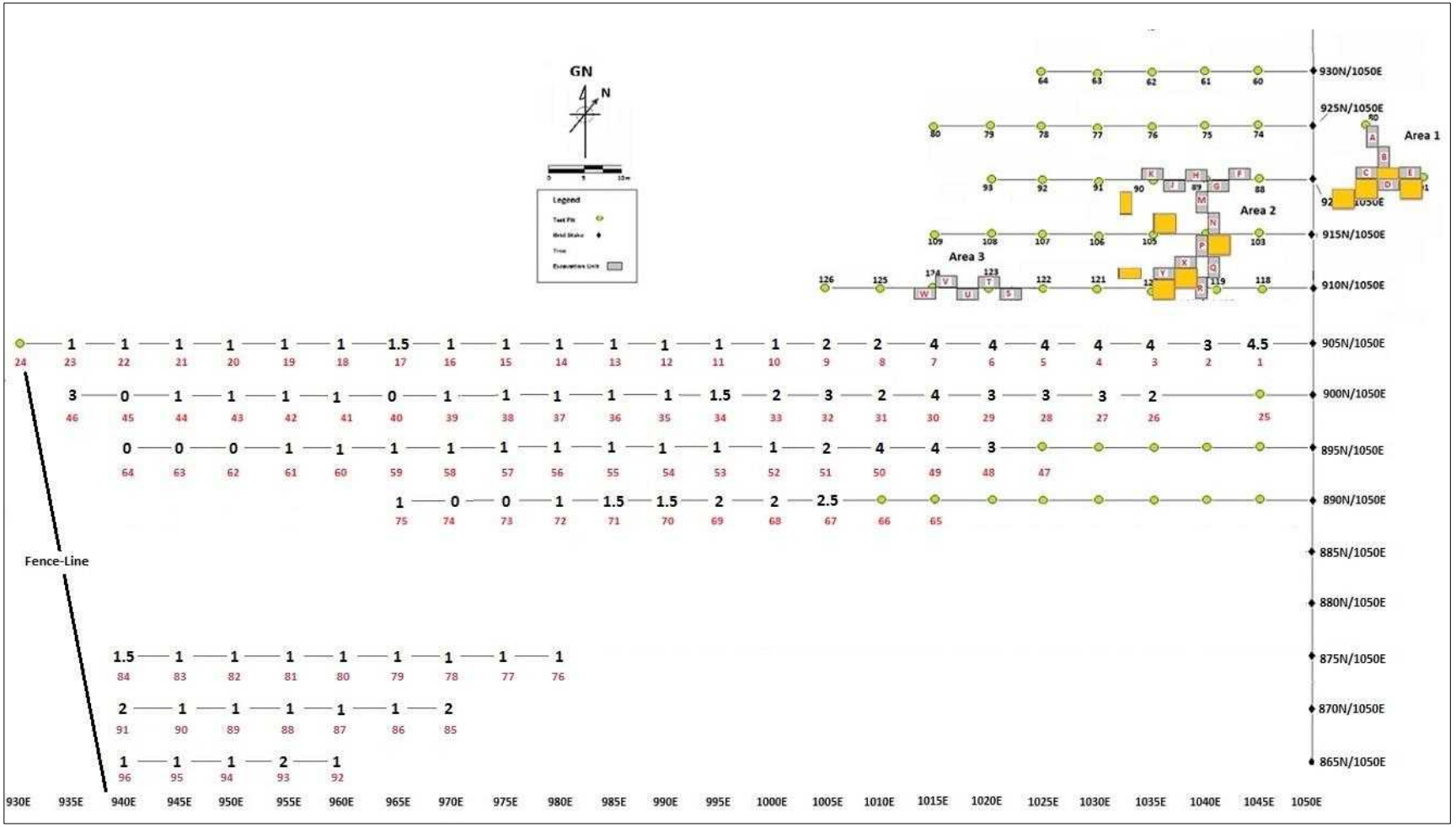


Figure 7 Plan showing location of test pits and ranking done while in the field to indicate areas of high artifact concentration. Rankings were on a scale of 0-5 from highest frequency to lowest.

Figure 8 Teaching Assistant Owen Harvey setting up grid with Total Station. View facing north with ravelin and barracks in background.

Figure 9 View facing west looking towards far end of survey lines where houses are visible in background. Test pitting in progress, May 16.

Figure 10 View facing west looking towards far end of survey lines where houses are visible in background.

Figure 11 View looking south towards Lake Erie shoreline. Survey lines were laid out in the area to the west (right) of the total station (lower left).

Figure 12 Stage 2 assessment in progress, May 17. All sediment was screened though ¼ inch mesh. View looking southeast with Lake Erie in background.

Figure 13 Stage 2 assessment in progress, May 17. AR219 students Jordan Streb (left) and Carli Perri. All sediment was screened though ¼ inch mesh.

Test Pit and Coordinates	Freq.
TP 1	**244**
905N/1045E	
TP 2	**128**
905N/1040E	
TP 3	**122**
905N/1035E	
TP 4	**276**
905N/1030E	
TP 5	**327**
905N/1025E	
TP 6	**459**
905N/ 1020E	
TP 7	**n/a**
905N/ 1015E	
TP 8	**98**
905N/ 1010E	
TP 9	**42**
905N/ 1005E	
TP 10	**19**
905N/ 1000E	
TP 11	**12**
905N/ 995E	
TP 12	**19**
905N/ 990E	
TP 13	**5**
905N/ 985E	
TP 14	**7**
905N/ 980E	
TP 15	**10**
905N/ 975E	
TP 16	**11**
909N/ 970E	
TP 17	**28**
905N/ 965E	
TP 18	**6**
905N/ 960E	
TP 19	**2**
905N/ 955E	
TP 21	**42**
905N/ 945E	
TP 23	**3**
905N/ 935E	
TP 26	**82**
900N/ 1035E	
TP 27	**66**
900N/ 1030E	
TP 28	**102**
900N/ 1025E	
TP 29	**101**
900N/ 1020E	
TP 30	**134**
900N/ 1015E	
TP 31	**77**
900N/ 1010E	
TP 32	**80**
900N/ 1005E	
TP 33	**12**
900N/ 1000E	
TP 34	**29**
900N/ 995E	
TP 35	**11**
900N/ 990E	
TP 37	**16**

900N/ 980E	
TP 38	**4**
900N/ 975E	
TP 39	**4**
900N/ 970E	
TP 40	**2**
900N/ 965E	
TP 41	**7**
900N/ 960E	
TP 42	**10**
900N/ 955E	
TP 43	**5**
900N/ 950E	
TP 44	**2**
900N/ 945E	
TP 45	**4**
900N/ 940E	
TP 46	**51**
900N/ 935E	
TP 48	**64**
895N/ 1020E	
TP 49	**153**
895N/ 1015E	
TP 50	**70**
895N/ 1010E	
TP 51	**67**
895N/ 1005E	
TP 52	**8**
895N/ 1000E	
TP 53	**29**
895N/ 995E	
TP 54	**8**
895N/ 990E	
TP 55	**15**
895N/ 985E	
TP 56	**7**
895N/ 980E	
TP 58	**14**
895N/ 970E	
TP 59	**27**
895N/ 965E	

TP 60	**8**
895N/ 960E	
TP 61	**2**
895N/ 955E	
TP 67	**63**
890N/ 1005E	
TP 68	**32**
890N/ 1000E	
TP 69	**19**
890N/ 998E	
TP 70	**21**
890N/ 990E	
TP 71	**12**
890N/ 985E	
TP 72	**5**
890N/ 980E	
TP 75	**4**
890N/ 965E	
TP 76	**16**
885N/ 980E	
TP 77	**101**
875N/ 975E	
TP 78	**3**
873N/ 790E	
TP 79	**10**
875N/ 965E	
TP 80	**31**
875N/ 960E	
TP 81	**8**
875N/ 955E	
TP 82	**19**
875N/ 950E	
TP 83	**97**
875N/ 945E	
TP 84	**18**
875N/ 940E	
TP 85	**4**
870N/ 970E	
TP 86	**2**
870N/ 965E	
TP 87	**2**

870N/ 960E	
TP 88	**20**
870N/ 955E	
TP 89	**15**
870N/ 950E	
TP 90	**4**
890N/ 985E	
TP 91	**16**
870N/ 940E	
TP 92	**7**
865N/ 960E	
TP 93	**46**
865N/ 955E	
TP 94	**6**
865N/ 950E	
TP 95	**4**
865N/ 945E	
TP 96	**14**
865N/ 940E	
Grand Total	**3447**

Test Pit Artifact Assemblage	
Test Pit # and CLASS	**Freq.**
TP 01	**244**
Bone	61
Ceramic Tableware	69
Construction Materials	17
Cooking/Heating	5
Glass Storage Containers	4
Glass Tableware	1
Hardware	1
Lithics	12
Nails	10
Window Glass	8
(blank)	56
TP 02	**128**
Blacksmithing	1
Bone	23
Ceramic Cooking and Storage	3
Ceramic Tableware	7
Construction Materials	59
Fasteners	1
Glass Storage Containers	1
Lithics	16
Nails	7
Window Glass	10
TP 03	**122**
Bone	20
Ceramic Tableware	28
Construction Materials	45
Cooking/Heating	5
Lithics	9
Miscellaneous Material	3
Nails	4
Window Glass	8
TP 04	**276**
Ammunition/Artillery	1
Bone	24
Ceramic Tableware	9
Construction Materials	160
Cooking/Heating	39
Lithics	28
Nails	10
Pipes	1
Window Glass	4
TP 05	**327**
Bone	10
Ceramic Cooking and Storage	2
Ceramic Tableware	6
Construction Materials	137
Cooking/Heating	67
Fasteners	1
Glass Tableware	1
Lighting Devices	6
Lithics	81
Miscellaneous Items	2
Nails	6
Window Glass	8
TP 06	**459**
Ammunition/Artillery	1
Ceramic Cooking and Storage	1
Ceramic Tableware	4
Construction Materials	388
Cooking/Heating	13
Glass Storage Containers	1
Lithics	38
Miscellaneous Hardware	1
Nails	5
Pipes	3
Window Glass	4
TP 08	**98**
Bone	1
Ceramic Cooking and Storage	4
Ceramic Tableware	11
Ceramics	5
Construction Materials	1
Cooking/Heating	3
Glass Storage Containers	1
Lithics	62
Miscellaneous Material	2
Nails	5
Window Glass	3
TP 09	**42**

Ceramic Tableware	6
Construction Materials	5
Cooking/Heating	20
Glass Storage Containers	1
Lithics	9
Pipes	1
TP 10	**19**
Bone	1
Ceramic Tableware	1
Construction Materials	7
Cooking/Heating	1
Lithics	8
Nails	1
TP 11	**12**
Construction Materials	6
Lithics	4
Nails	2
TP 12	**19**
Construction Materials	9
Cooking/Heating	0
Glass Beverage Containers	1
Glass Tableware	1
Lithics	3
Nails	5
TP 13	**5**
Ceramic Tableware	1
Glass Tableware	1
Lithics	2
Nails	1
TP 14	**7**
Ceramic Tableware	2
Construction Materials	1
Lithics	3
Miscellaneous Items	1
TP 15	**10**
Construction Materials	4
Glass Beverage Containers	1
Lithics	4
Nails	1
TP 16	**11**
Construction Materials	1
Cooking/Heating	1
Lithics	4
Miscellaneous Items	1
Nails	4
TP 17	**28**
Blacksmithing	7
Construction Materials	6
Cooking/Heating	14
Glass Beverage Containers	1
TP 18	**6**
Ceramic Tableware	1
Lithics	5
TP 19	**2**
Lithics	2
TP 21	**42**
Construction Materials	1
Cooking/Heating	32
Lithics	4
Miscellaneous Items	5
TP 23	**3**
Construction Materials	1
Lithics	2
TP 26	**82**
Bone	8
Ceramic Cooking and Storage	5
Ceramic Tableware	7
Construction Materials	29
Lithics	18
Nails	9
Window Glass	6
TP 27	**66**
Bone	8
Ceramic Tableware	10
Construction Materials	23
Glass Tableware	1
Lithics	20
Nails	1
Window Glass	3
TP 28	**102**
Bone	8
Ceramic Tableware	5

Construction Materials	46
Cooking/Heating	1
Lithics	38
Miscellaneous Material	1
Window Glass	3
TP 29	**101**
Bone	6
Ceramic Tableware	12
Construction Materials	37
Lithics	37
Nails	3
Pipes	2
Window Glass	4
TP 30	**134**
Ammunition/Artillery	1
Bone	7
Ceramic Cooking and Storage	8
Ceramic Tableware	24
Ceramics	1
Construction Materials	43
Glass Storage Containers	3
Lithics	18
Nails	7
Pipes	1
Window Glass	21
TP 31	**77**
Ceramic Cooking and Storage	3
Ceramic Tableware	8
Construction Materials	26
Lithics	27
Nails	1
Window Glass	12
TP 32	**80**
Ammunition/Artillery	1
Ceramic Tableware	4
Construction Materials	44
Lithics	28
Nails	2
Window Glass	1
TP 33	**12**
Construction Materials	1
Lithics	9
Nails	1
Window Glass	1
TP 34	**29**
Ceramic Tableware	1
Construction Materials	8
Cooking/Heating	10
Lithics	9
Nails	1
TP 35	**11**
Ceramic Tableware	1
Construction Materials	8
Glass Beverage Containers	1
Lithics	1
TP 37	**16**
Ceramic Tableware	1
Construction Materials	3
Cooking/Heating	1
Glass Beverage Containers	1
Glass Storage Containers	2
Lithics	8
TP 38	**4**
Glass Beverage Containers	1
Lithics	3
TP 39	**4**
Construction Materials	1
Lithics	1
Miscellaneous Items	2
TP 40	**2**
Glass Tableware	1
Lithics	1
TP 41	**7**
Construction Materials	1
Lithics	6
TP 42	**10**
Cooking/Heating	9
Lithics	1
TP 43	**5**
Ceramic Tableware	1
Cooking/Heating	1
Lithics	3

TP 44	**2**
Glass Storage Containers	2
TP 45	**4**
Construction Materials	2
Lithics	2
TP 46	**51**
Ceramic Cooking and Storage	1
Construction Materials	5
Glass Beverage Containers	36
Glass Storage Containers	1
Lithics	5
Miscellaneous Hardware	2
Nails	1
TP 48	**64**
Bone	2
Ceramic Tableware	2
Construction Materials	40
Lithics	16
Nails	2
Window Glass	2
TP 49	**153**
Bone	8
Ceramic Cooking and Storage	5
Ceramic Tableware	11
Construction Materials	48
Cooking/Heating	4
Glass Beverage Containers	4
Lithics	53
Nails	7
Pipes	7
Window Glass	6
TP 50	**70**
Bone	9
Ceramic Cooking and Storage	1
Ceramic Tableware	7
Construction Materials	30
Cooking/Heating	6
Glass Beverage Containers	1
Glass Tableware	2
Lithics	4
Nails	5
Pipes	3
Window Glass	2
TP 51	**67**
Construction Materials	56
Lithics	9
Nails	1
Window Glass	1
TP 52	**8**
Ceramic Tableware	1
Cooking/Heating	4
Lithics	3
TP 53	**29**
Ceramic Tableware	1
Construction Materials	10
Lithics	17
Pipes	1
TP 54	**8**
Construction Materials	2
Lithics	5
Window Glass	1
TP 55	**15**
Ceramics	7
Construction Materials	2
Lithics	6
TP 56	**7**
Construction Materials	5
Nails	1
Pipes	1
TP 58	**14**
Ceramic Tableware	1
Construction Materials	2
Glass Beverage Containers	1
Lithics	8
Nails	1
Toys and Leisure	1
TP 59	**27**
Construction Materials	8
Cooking/Heating	2
Lithics	16
Miscellaneous Material	1
TP 60	**8**

Blacksmithing	1
Lithics	7
TP 61	**2**
Currency	1
Lithics	1
TP 67	**63**
Bone	5
Ceramic Tableware	2
Construction Materials	39
Cooking/Heating	2
Lithics	13
Nails	2
TP 68	**32**
Bone	3
Ceramic Tableware	1
Construction Materials	15
Cooking/Heating	4
Lithics	5
Nails	2
Window Glass	2
TP 69	**19**
Bone	5
Ceramic Tableware	2
Construction Materials	9
Lithics	1
Nails	2
TP 70	**21**
Bone	2
Construction Materials	10
Cooking/Heating	2
Glass Beverage Containers	1
Lithics	5
Nails	1
TP 71	**12**
Bone	1
Construction Materials	3
General Storage	1
Lithics	7
TP 72	**5**
Ceramic Tableware	1
Construction Materials	1

Lithics	3
TP 75	**4**
Ammunition/Artillery	1
Lithics	2
Nails	1
TP 76	**16**
Ceramic Tableware	1
Construction Materials	2
Glass Beverage Containers	2
Lithics	11
TP 77	**101**
Ceramics	1
Construction Materials	2
Cooking/Heating	89
Currency	1
Lithics	8
TP 78	**3**
Lithics	3
TP 79	**10**
Cooking/Heating	1
Fasteners	1
Lithics	7
Miscellaneous Material	1
TP 80	**31**
Construction Materials	4
Cooking/Heating	17
Lithics	9
Window Glass	1
TP 81	**8**
Lithics	8
TP 82	**19**
Construction Materials	2
Lithics	17
TP 83	**97**
Cooking/Heating	86
Lithics	2
Nails	9
TP 84	**18**
Ceramic Tableware	1
Construction Materials	1
Glass Beverage Containers	8

Lithics	7
Nails	1
TP 85	**4**
Lithics	3
Miscellaneous Material	1
TP 86	**2**
Fasteners	1
Miscellaneous Hardware	1
TP 87	**2**
Lithics	1
Window Glass	1
TP 88	**20**
Construction Materials	11
Glass Beverage Containers	1
Lithics	8
TP 89	**15**
Construction Materials	2
Cooking/Heating	2
Lithics	5
Miscellaneous Hardware	2
Window Glass	4
TP 90	**4**
Lithics	3
Miscellaneous Items	1
TP 91	**16**
Ceramic Tableware	2
Construction Materials	2
Glass Beverage Containers	1
Lithics	3
Pharmaceutical Containers	2
Window Glass	6
TP 92	**7**
Glass Storage Containers	1
Lighting Devices	1
Lithics	4
Pharmaceutical Containers	1
TP 93	**46**
Construction Materials	8
Cooking/Heating	7
Glass Beverage Containers	1
Lithics	29
Pipes	1
TP 94	**6**
Lithics	6
TP 95	**4**
Currency	1
Lithics	2
Miscellaneous Material	1
TP 96	**14**
Cooking/Heating	1
Glass Beverage Containers	2
Hardware	1
Lithics	3
Window Glass	7
Grand Total	**3447**

5.0 Metal Detecting Survey

A metal detecting survey was carried out to the north of the 2017 excavation by the two Advanced Field School students, Curtis Garde and Ty Martinec. This was done in the area of the 2012 excavation on the earthwork constructed by the American forces in summer 1814, referred to in the documents as Biddle's Battery and Fanning's Battery after the commanding officers at each. Fanning's battery was the focus of the survey. The purpose was to determine if artillery could be found in the field of fire directly in front of the defensive earthwork. This is the area where incoming British artillery would have landed just short of the defensive earthwork itself.

The area in front of Fanning's battery, outside the earthwork, was sectioned off into three 10 x 10 metre squares. Transects within each square were walked at a 1 metre spacing in two directions – north-south and east-west to provide unbiased readings.

Prior to the survey, a demonstration was provided by Bob Cziraki, the purveyor of the equipment. Preliminary to the survey a baseline for different types of metal was established to determine the frequency and sound of each on the metal detector. Iron, lead, copper, tin and steel were used as test cases.

The results were promising. The survey provided 447 'hits' of different types of metals. No ground-truthing took place in 2017 although the survey serves as a basis for planning future excavation.

Details of the survey are found in the report by Curtis Garde *Metal Detecting Survey Report* : Appendix C.

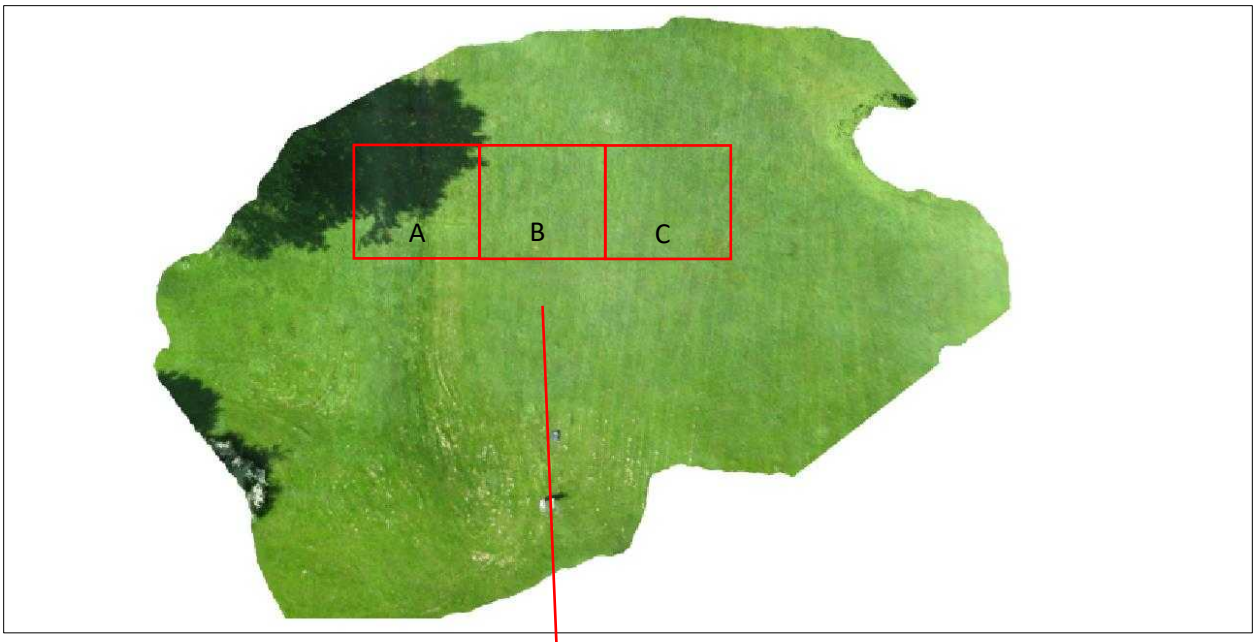


Figure 14 Drone overhead view at altitude of 30 metres showing 10 x 10m survey sectors referred to in report. The ditch for the American-built earthwork constructed in June 1814 is visible to the left (slightly shaded area) where it is intersected by Sector A. The open field of fire is to the right or north of the earthwork outside the America encampment (north to right).

Figure 15 Aerial view of excavation Areas from 2012 showing 3 survey Sectors where metal detecting survey took place on June 1, 2, and 5, 2018.

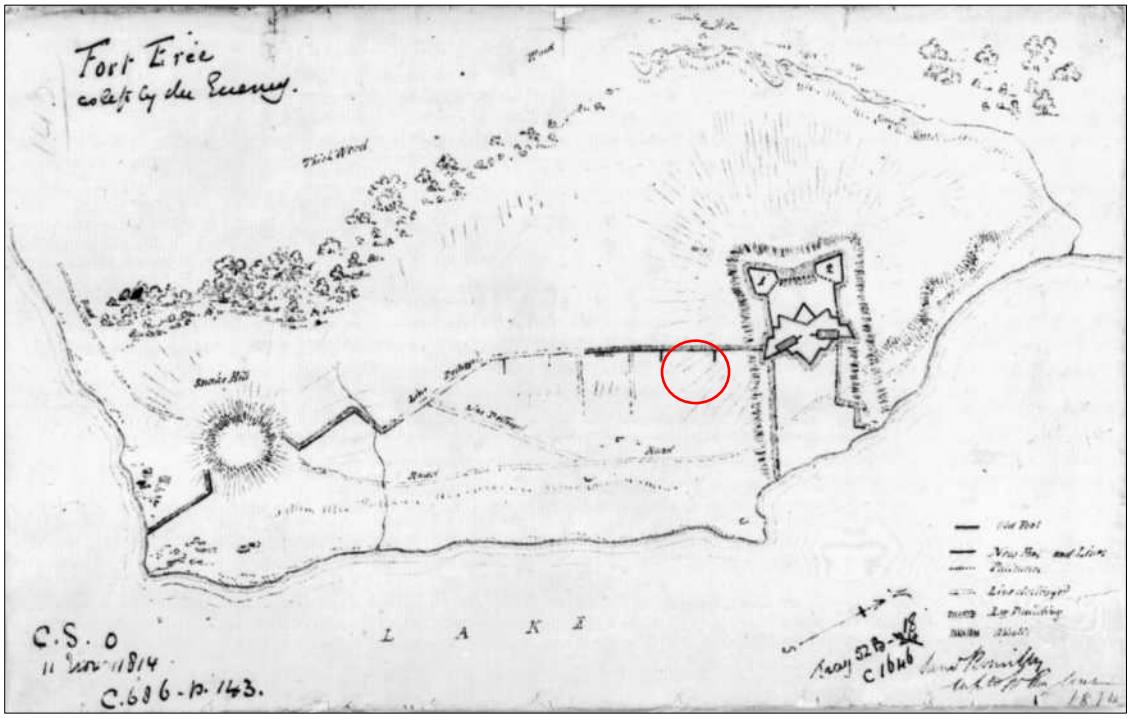


Figure 16 Romilly Map, 1814 showing Fort Erie after the withdrawal of American troops in November 1814. The area where the metal detecting survey took place is to the north of the American defensive earthwork outside the encampment referred to as Fanning's Battery.

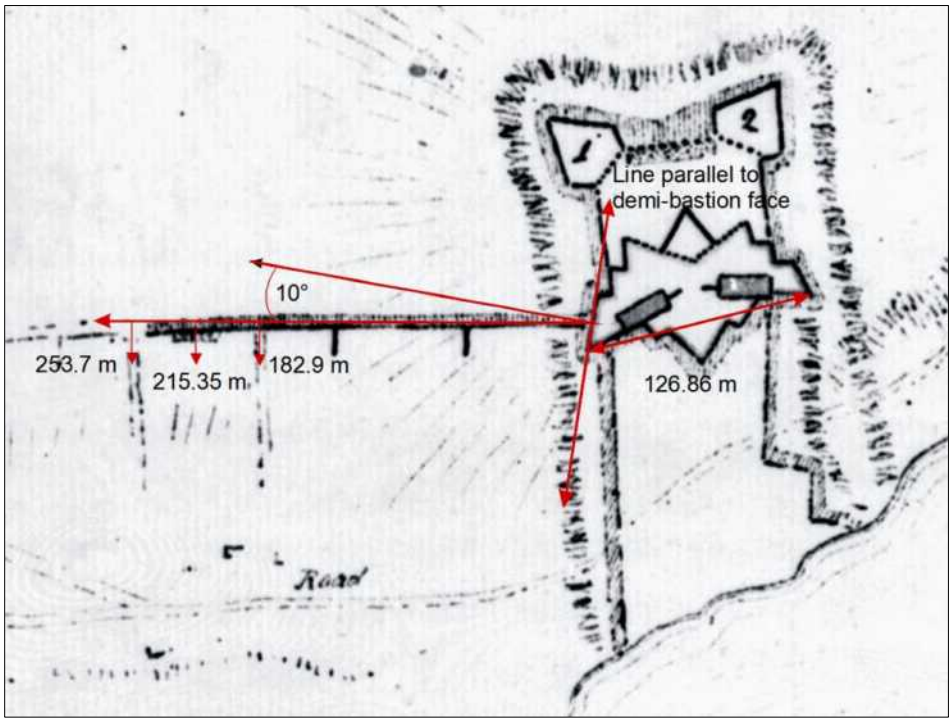


Figure 17 Detail of above map "Fort Erie as left by the Enemy Nov. 10, 1814" showing calculations used to establish the excavation grid parallel to the earthwork.

Figure 18 Excavation Units in Fanning's Battery excavation area 2012 and sectors for metal detecting survey.

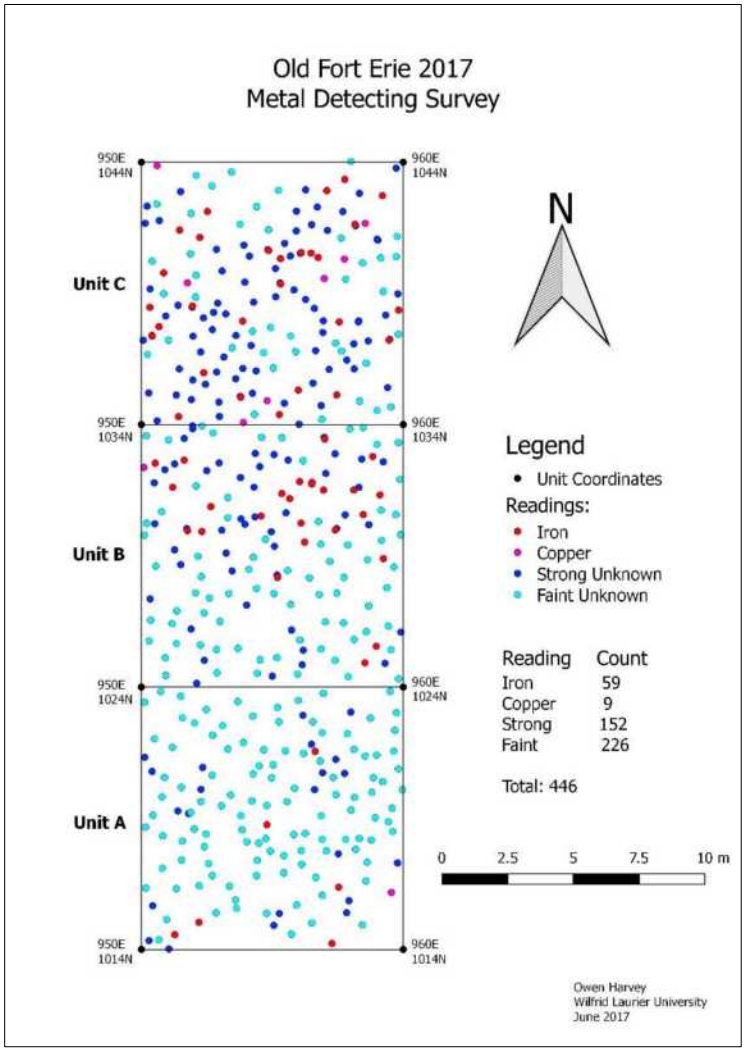


Figure 19 Map of survey sectors showing readings. Courtesy of Owen Harvey.

6.0 Area 1 Archaeological Chronology

There are 42 Phases grouped into seven Periods in Area 1. Periods represent significant episodes in the history of the site in general, such as construction and destruction episodes, landscapes associated with

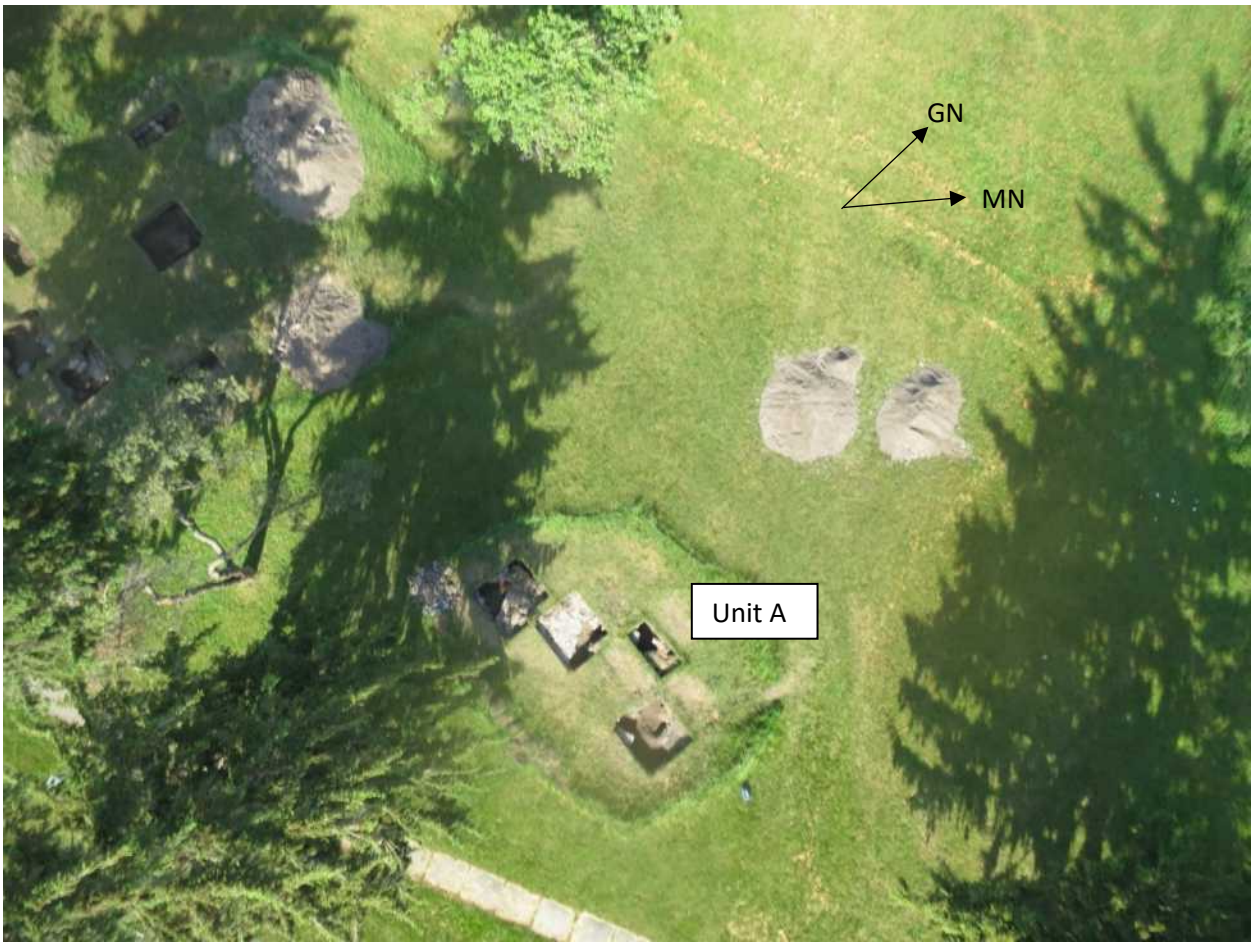


Figure 20 Drone image of Area 1 showing Units A-D at close of excavation. Grid north is indicated - approximately 45 degrees west of magnetic north.

historical events and others as discussed below. Periods defined by each excavation Area (1, 2, and 3) are common across the site and allow for comparisons between these separate areas.

Three 2 x 2 metre units and one 1 x 2 metre unit were laid in on Wednesday May 10, designated as 17A-D. Unit A is a 1 x 2 metre Unit situated to the east of the presumed forge found last year in Unit C. The other three units are designated 17B, 17C, 17D, all of which are intended to further define the footprint of the blacksmith shop and to locate walls and interior features. While the northeast corner of the structure can be projected with confidence based on the east and north walls found last year, at the outset of excavation in 2017, the other corners of the building had yet to be determined.

Units surveyed in on Tuesday and Wednesday May 9, 10 are shown below.

The following is a Period-by-Period synopsis of the stratigraphic sequence with descriptions of each Phase. Accompanying the discussion are descriptions of the artifact assemblage focusing on Group and Class and the proportions these make up for each Period, in addition to descriptions of small finds. A more detailed description of the artifacts for each layer within each unit is found in the Artifact Catalogue, Appendix E, and the artifact analysis section 9.0.

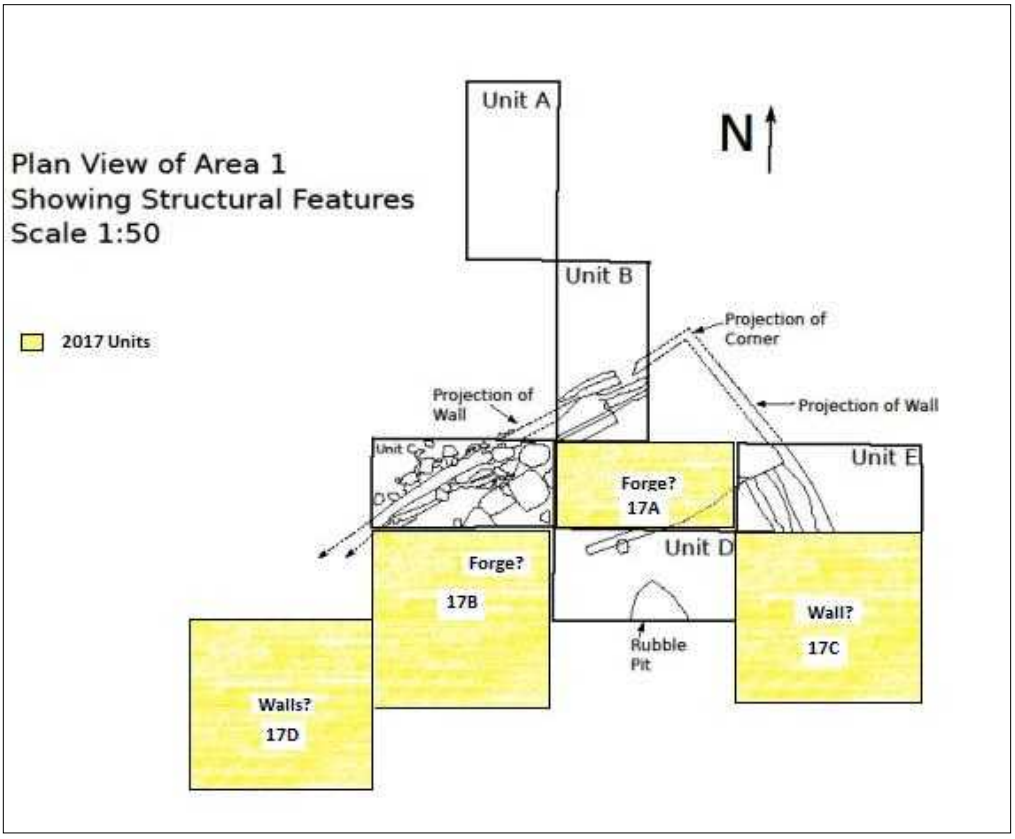


Figure 21 Plan view of Area 1 showing Units excavated in 2017 – shaded yellow – and those excavated in 2015.

Stratigraphic Matrix Area 1

Fort Erie 2017

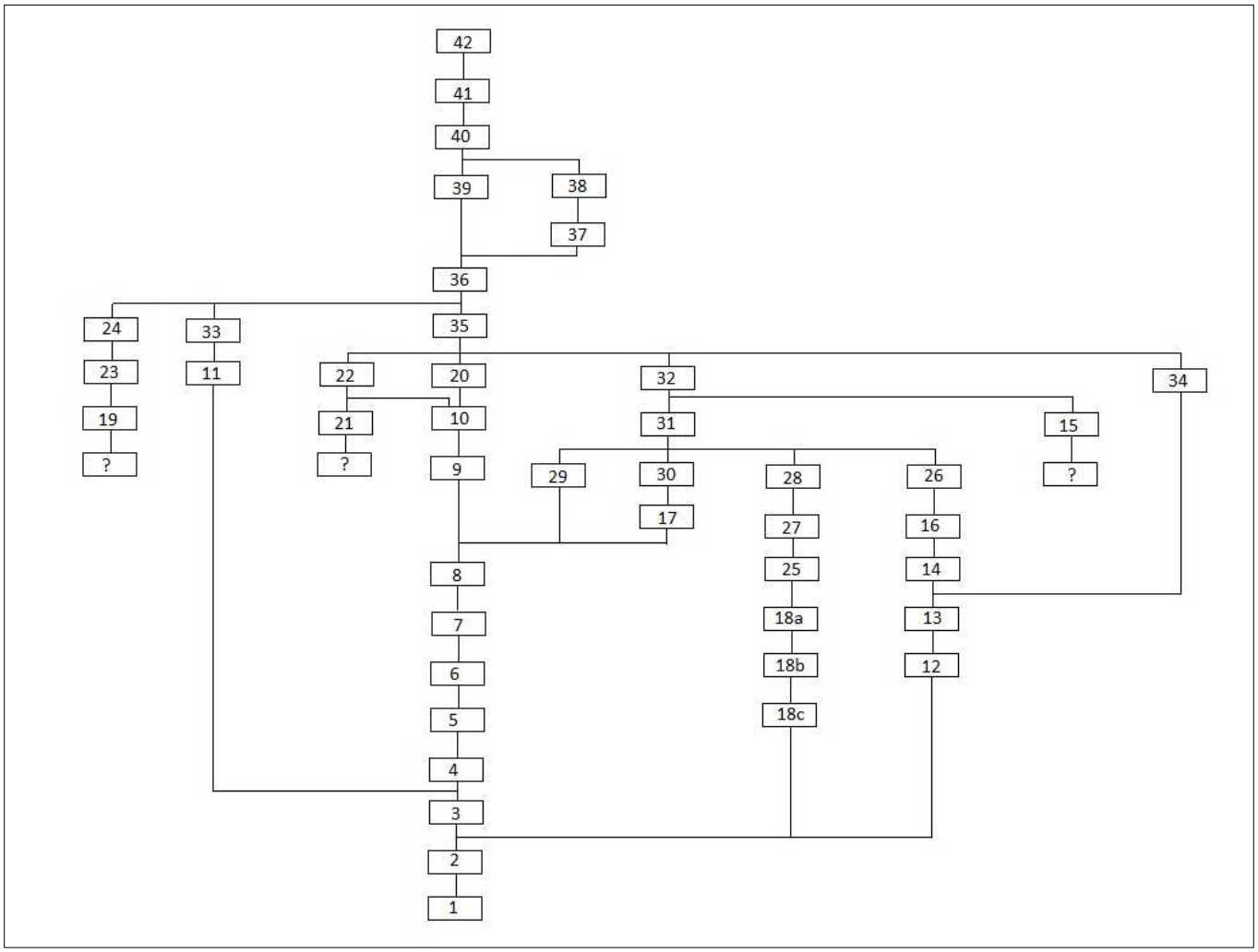


Figure 22 Harris Matrix showing all Phases defined for Area 1. This is based on superposition of all layers, features and interfaces defined during excavation.

Phase Matrix Area 1

Fort Erie 2017

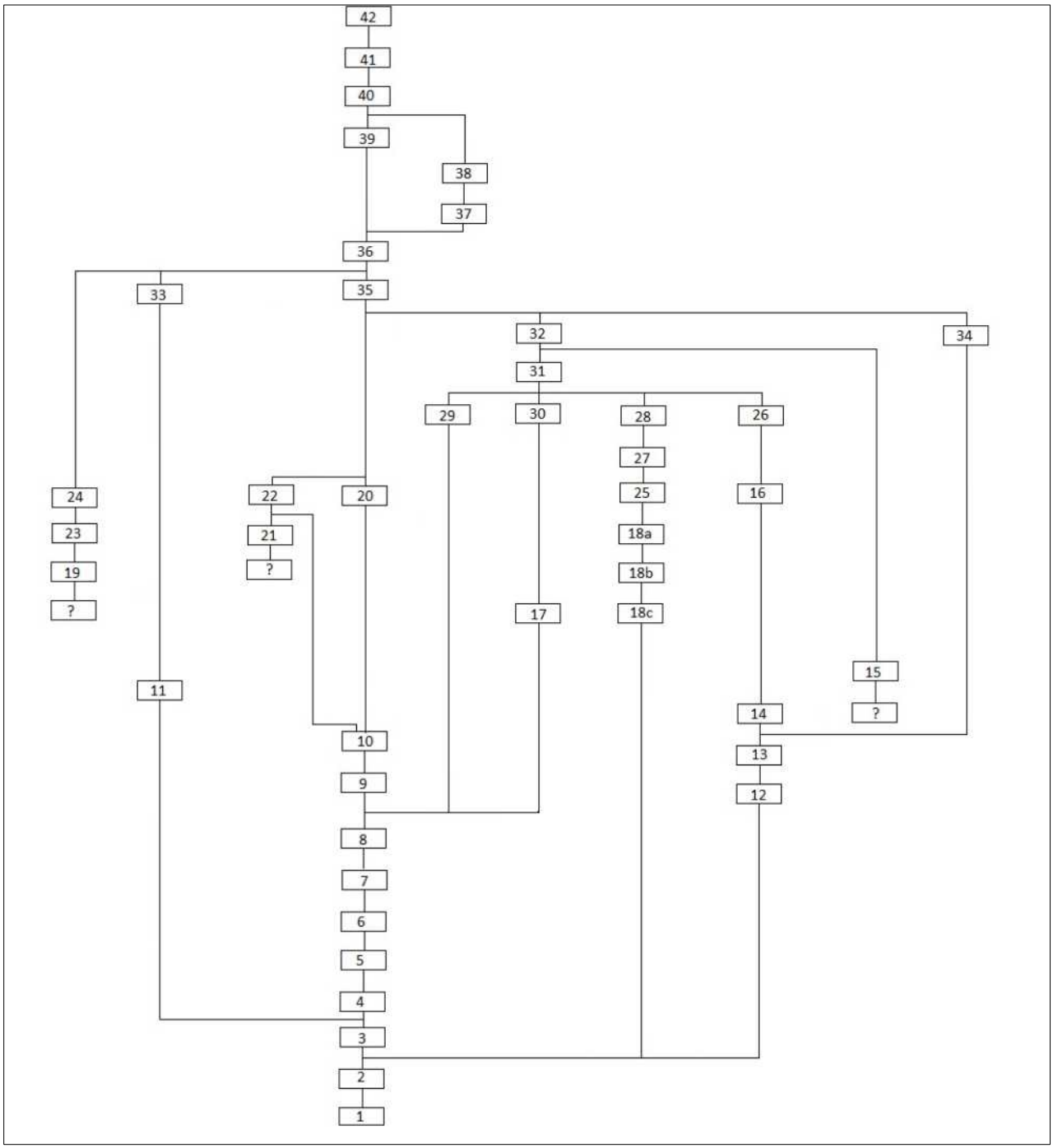


Figure 23 Harris Matrix showing all Phases defined for Area 1. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position by sliding the boxes on the vertical lines such that those on the same vertical position are assumed to be contemporary.

Phase Matrix Showing Periods

Area 1 Fort Erie 2017

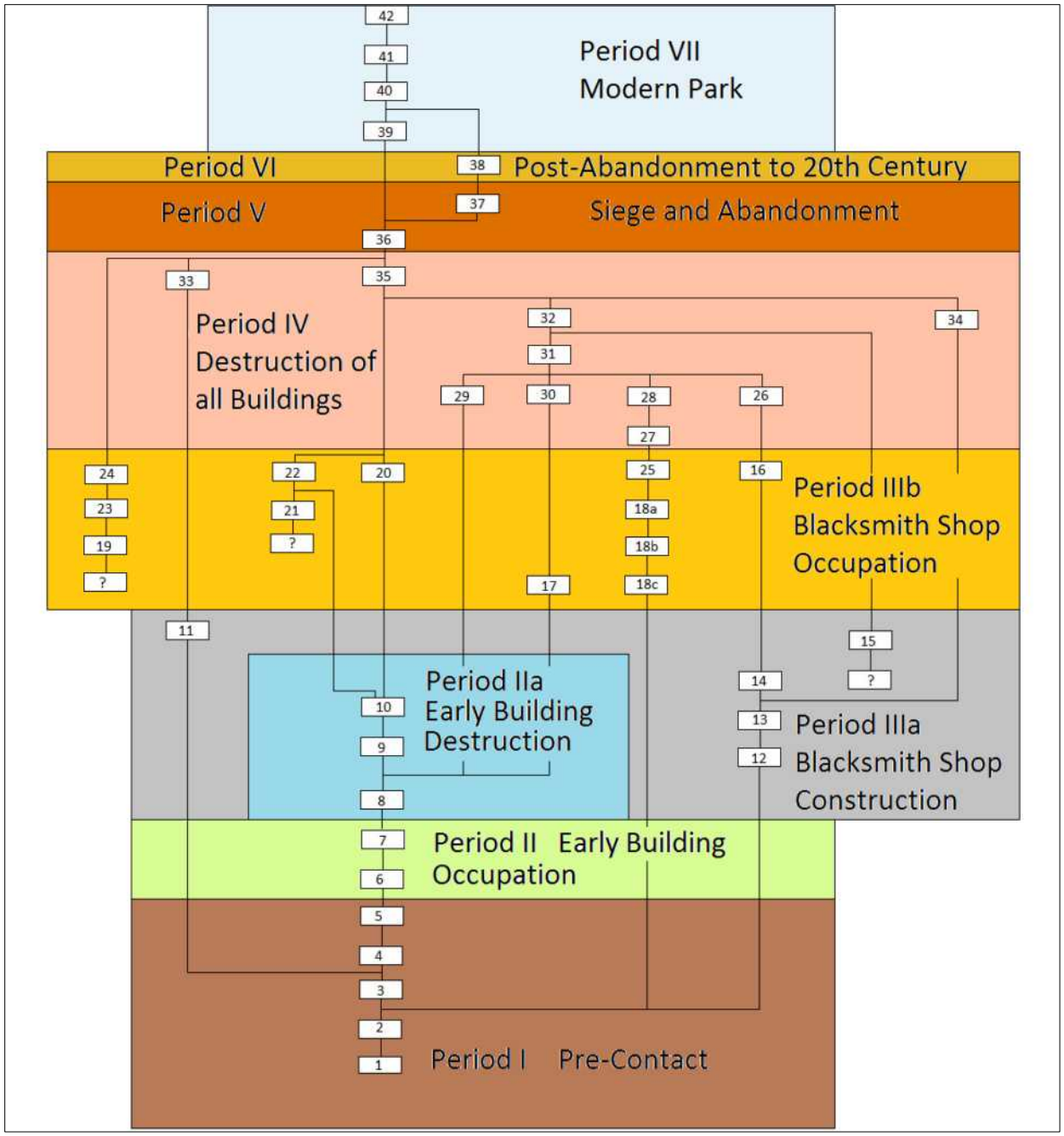


Figure 24 Harris Matrix showing all Periods defined for Area 1. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position and grouped according to major episodes in the history of the site, some of which can be dated using historical documentation.

Area 1 Stratigraphic History

Period I – Pre-Contact This Period includes Phases [1] to [5]. Phase [1] subsoil is composed of loosely compacted reddish-brown sand (7.5YR5/8) with no inclusions. This is found in all units in Area 1.

Figure 25 Unit C (north at top) showing pit in northwest corner (Phases [4] and [5] and subsoil in south half of unit (Phases [1] and [2]. The photo board is in the approximate location of a presumed doorway situated in the corner of the structure – discussed below in Period IIIa.

Overlying the subsoil in all units is a loosely compacted dark reddish brown (5YR2.5/2) sandy loam A-horizon, Phase [2]. The deposit ranges in thickness from about 15 to 25 centimetres and is clearly definable as a distinct layer overlying subsoil. Artifacts recovered from the layer include chert and some historic period artifacts that are intrusive into the layer near the surface. In Unit C, the surface of the layer, Phase [3], was exposed on the exterior of a structure. The layer was not excavated in this area. Phase [4] represents the interface of a shallow pit [5] found in Unit C. The feature contained a high percentage of pebbles and sand, and two artifacts: a large bovine foot bone and a chert fragment. It is possible that the pit dates to the pre-contact Period as it was intrusive into the A-horizon.

Period II – Early Building Occupation Two Phases, [6] and [7], both in Unit C, are identified as subfloor layers on the west side of the earliest structure in this area. The earliest layers associated with Phase [6] are lots 11 and 14 in this unit, a reddish brown (5YR3/2) loam/clay-loam deposit about 10 to 15 centimetres thick. The high frequency of nails and window glass, together with large fragments of historic ceramic and container glass, suggest that this is a primary deposit associated with the occupation of a domestic structure, and its later destruction. Several large sherds of native-made ceramic as well as more than 50 pieces of chert debitage were found in the layer directly overlying the A-horizon (Phase [2]), and it seems likely that these belong to the Period I assemblage, but in a displaced context. (Evidence of pre-contact Period occupation has also been found in Area 3 in the buried A-horizon.) Overlying the Phase [6] deposit is Phase [7], a brown (2.5YR4/4) clay deposit about 5 centimetres thick. This may in fact represent a floor layer for the early structure with evidence of the destruction of the building in the form of hundreds of nails, large pieces of window glass, ceramic and other domestic items. One sherd of native ceramic was also recovered from the layer.

Figure 26 Unit C (north at top) showing subfloor layer in northwest corner of Unit (upper left) (Phase [7] in which large quantities of building materials were found.

Period IIa – Early Building Destruction Phases [8], [9] and [10] are destruction events found in layers in Units C and D. Phase [8] is a 10-centimetre thick layer of dark grey (5YR3/1) loam with brick and charcoal inclusions. The deposit contains nails, window glass and other domestic items such as ceramic and food bone, together with a large padlock, chain and scrap iron. The presence of nails suggests a destruction deposit. A pit and associated interface in the north section of Unit C defines Phases [9] and [10]. The pit measures about 45 centimetres across and 30 centimetres deep and is filled with reddish brown (10YR6/4) loose to medium-compacted loam. Inclusions of charcoal and ash point to burning activity associated with the destruction of a building. More than 100 nails and a small number of window glass fragments further point to destruction activity. Other artifacts within the pit are domestic in nature and suggest that the pit was likely used for refuse disposal: high numbers of food bone, container glass, were found along with less common items such as straight pins, a hawk bell, and stemware.

Figure27 Unit C (north at top) showing destruction layer in west (left) side of Unit, Phase [8], on the interior of the structure.

Period IIIa – Smithy Construction Phases [11] to [15] mark events associated with the construction of the next building in this area – the blacksmith's shop or smithy. Phase [11] is a ridge of mortar about 10-15 centimetres thick, and about 10 centimetres high, running for a distance of about 1 metre in the northeast corner of the unit. The extension of this ridge was found in Unit E in 2015 where it was thought to form the exterior wall of the structure. The ridge defines the east wall of the building, likely a smithy, and runs at an angle to the grid, and at right angles to floorboards and walls found in other units in Area 1. The termination of the ridge/wall in Unit C suggests that a doorway may have been present in this location. The presence of a doorway on the southeast corner of the building (in Unit C) is also suggested by a large flat stone resting on the A-horizon (lot 16) in a position that left a gap between this and the mortar ridge along the east wall. The mortar line has impressions of wood on the surface and appears to have been an attempt to keep a plank wall from resting directly on the soil. Such a remedial measure may be indicative of the structure's function as a smithy rather than a dwelling. Artifacts found in association with the mortar ridge include musket balls, buckshot, smoking pipes and window glass.

Figure 28 Unit C (facing east) showing Phase [11], mortar ridge marking east wall of structure, and the large flat stone that is part of the foundation wall near the entrance.

Phase [12], [13], and [14] are related events that define a masonry construction along the north wall of the smithy. In Unit A the Phases are related to two courses of large stones [13], about 35 centimetres in total height, set into a builder's trench [12] which is cut into the A-horizon. The builder's trench fill [14] is adjacent to and under the wall. Artifacts found in the fill include a Royal Regiment of Artillery button, container glass, nails, food bone, and window glass. The presence of the British button in this context supports the dating of the construction of the smithy to the 18th century rather than a later American structure associated with the siege in 1814. The continuation of the wall is found in Unit D, lot 9b, a limestone block construction which is separated from the forge by a 20-centimetre gap where a sleeper and floorboard were found. The same wall was found in 2015, in Unit C.

Figure 29 Unit A (facing north) showing Phases [12], bulder's trench (left) and [13] two courses of the stone foundation wall for the smithy.

The masonry in Unit A is related to the adjacent forge [13] and flagstone floor [15], in Units D and B, also constructed at this time. The forge is a large masonry construction that occupies the eastern part of Unit D. Two to three courses of large limestone blocks with traces of mortar rise about 30-35 centimetres above the subsoil at the rear of the forge. The structure measures more than 1.5 metres north-south and about 1.2 metres east-west where it ends in Unit B, and the flagstone floor can be seen. The floor is composed of limestone blocks, set closely together, and fairly level, varying in elevation only a few centimetres across a width of about 1.2 metres. This is almost certainly the hearth and working area in front of the forge. The floor terminates more than half way across the Unit, at an angle to the grid, where it meets a dark loamy layer (the A-horizon) or earthen floor of the smithy interior.

Figure 30 Unit D (facing north) showing Phase [13], the forge foundation on the east (lower right) side of the Unit.

Figure 31 Unit B (facing north) showing Phase [15], the flagstone floor and hearth in front of the forge.

Period IIIb – Smithy Occupation Phases [16] to [25] describe various events found in all Units related to the occupation of the smithy. Phase [16] is a sub-floor deposit of dark grey (5YR3/1) sandy loam, with brick, mortar and charcoal inclusions, underlying some floorboards (described below for Phase [23]). The layer overlies the A-horizon and is about 3 to 5 centimetres thick. Artifacts found in the deposit indicate destruction (nails and window glass) and are likely intrusive from a later Period. A US infantry button and a plain gaitor button were also found. A similar subfloor layer was found in Unit D. This deposit, Phase [17] was similarly dark grey in colour with brick and mortar inclusions overlying subsoil. A few fragments of food bone and one nail were recovered. The deposits may represent an accumulation of soil over the original ground surface, or sediment that fell through cracks in the floorboards during occupation. In Unit B three very thin layers of mixed sandy loam were found on the exterior of the hearth/flagstone working floor associated with the forge. These layers together are about 8 centimetres thick and are likely accumulations of sediment over a prolonged Period of time. There is no evidence of an overlying wooden floor as in Phases [16] and [17] which is probably attributable to the location in front of the hearth where a wooden floor would have been a potential fire hazard. A few artifacts were recovered including nails, window glass, scrap metal, food bone and container glass.

Phases [19] to [23] define various subfloor sleepers and floorboards found inside the smithy in areas removed from the hearth/working flagstone floor. These are best defined in Unit A where at least 6 planks about 20 centimetres wide (8”) were found lying side by side, Phase [23]. The continuation of the floor to the north was found in 2015 in Unit B. The planks are closely set in Unit A, as in Unit 2015 B. Further evidence of the plank floor was found in Unit D in the same Phase. The plank floor is set upon squared timber sleepers, or sub-floor supports, running in the opposite direction as the overlying floorboards. In Unit C there is evidence for the floor having been replaced at least once due to fire. A burnt sleeper, Phase [20], was found at a lower level than another sleeper resting at a higher level with no evidence of burning, Phase [22]. The same evidence was found in 2015 in Unit E where the lower level sleeper with evidence of burning was replaced by a sleeper at a higher level. Another sleeper with no evidence of burning was also found in Unit D, Phase [22]. Two nails from an overlying floorboard were found *in situ* in this sleeper. A deposit of dark reddish-brown loam (Phase [21]) was found surrounding the sleeper in Unit D. No artifacts were recovered as the layer was not excavated.

Figure 32 Unit A (facing north) showing Phase [23], wooden floorboards.

A well-compacted layer of dark reddish brown (5YR 2.5/2) loam was found overlying the floorboards in Unit A, Phase [24]. This may represent accumulation of soil on the floor during occupation. The presence of scrap metal suggests that the material in the deposit may be *in situ* and directly related to work in the smithy. A similar layer of dark sediment overlying earlier floor layers was found in Unit B. This final Phase [25] within Period IIIb included a variety of artifacts such as scrap metal, buckshot, container glass, and ceramics together with smaller items that are indicative of primary deposition inside the smithy: food bone and fish scales, two straight pins, trade silver, and a William III half penny coin dating from the 1690s.

Period IV – Smithy Destruction ca. 1814 Phases [26] to [35] This Period is defined by events associated with the destruction of the smithy. The earliest Phase [26] is represented by a large block of mortar in the southeast corner of Unit A. The mortar was not associated with any building stones and is likely the remnant of the destruction of the adjacent masonry wall in the west side of the Unit. Phase [27] is the interface for Phase [28] a deep pit in the northeast corner of Unit B. The pit is about 30 centimetres deep and measures at least 1 metre east-west and 50 cm north-south. Fill within the pit [28] consists of limestone rubble, building debris such as brick, mortar, and scrap metal together with fragments of faunal bone. The pit may have had another function before being filled, but there is no indication of what purpose it might have served. If is located to the east of the flagstone hearth/floor of the forge in the earthen-floored section of the smithy. Phases [29] and [30] are found in Unit D. These are layers of loam and loamy clay with inclusions of brick, and mortar, measuring between 5 and 10 centimetres thick. Phase [29] is an exterior deposit and Phase [30] is an interior deposit associated with the smithy. A considerable quantity of artifacts was recovered from both layers including nails, fish bone, scrap iron and a pewter button. A total of 196 artifacts were found in the interior layer [30] most of which is faunal bone (154 fragments). The vast majority of this bone was fish (98 pieces) following by mammal (47) and bird (9). The relatively large number of nails suggests that these were items that fell between the floorboards which were in evidence in the earlier Period IIIb. A small number of ceramics, container glass, and a pewter button was also recovered from this Phase. Phase [29], the exterior deposit, had about half as many artifacts (n 82) consisting of smaller numbers of bone (22 mammal, 6 fish, and 6 bird). The lesser quantity of fish bone stands in contrast to the higher number found in the interior deposit, below the floorboards. Other artifacts found include ceramics, native lithics, 18 nails and 2 pieces of window glass. Tt is clear

Figure 33 Unit B (facing south) showing Phase [28], rubble-filled pit at edge of stone hearth/floor in front of forge.

that the exterior deposit differs from the interior in terms of quantities and proportions of items found, due to the different processes responsible for deposition.

Phase [31] is a rubble destruction layer, found in 3 Units, related to the destruction of the north wall and forge. In Unit A the assemblage is composed mostly of nails, a few pieces of window glass, faunal bone and a few pieces of creamware and pearlware. A Royal Regiment of Artillery button was also recovered. In Unit B a similar assemblage of destruction debris was found composed mostly of nails, and a few pieces of window glass. Six horseshoe nails were also found. Faunal bone fragments, a musket flint, two US infantry buttons, a few pieces of ceramic, container glass and scrap metal comprise the rest of the assemblage. Fewer nails were found in Unit D, although more faunal bone fragments and ceramic sherds were recovered. Two .63 calibre US Springfield musket balls were also found. The recovery of items dating to the American occupation of the fort in 1814 supports the dating of this Period based on stratigraphic analysis. Another overlying destruction layer, Phase [32], was found in Units, B and D. This layer directly overlay the pit in Unit B and contained brick, mortar and charcoal fragments. The assemblage is dominated by 34 pieces of lead shot, .63 calibre US musket balls, and buckshot. The balls were found clustered in the northeast corner of the unit and may represent a canvas bag of spilled shot. Destruction debris was also found in the form of nails and window glass along with ceramics, container glass, faunal bone, scrap metal and a single piece of a clay smoking pipe. In Unit D, a similar deposit containing brick and mortar was found adjacent to the forge foundation. Excepting lead shot - none were recovered - the assemblage is similar to Unit B but in smaller numbers.

Figure 34 Unit B (facing north) showing Phase [32], destruction layer overlying the rubble-filled pit and the stone forge hearth/floor.

Figure 35 Unit B close-up showing some of the musket balls and buckshot found adjacent to the stone hearth floor.

Figure 36 Unit D (facing north) showing Phase [34], the top of the demolished north wall of the smithy (top left) and the forge (right). The stone floor front of forge in Unit C is partially visible in the upper right.

Figure 37 Unit D (facing north) showing Phase [35], the destruction layer adjacent to and overlying the demolished north wall of the smithy (top left) and the forge (right).

The next two Phases [33] and [34] represent the destruction interfaces of the north masonry wall of the smithy, the forge itself, and the less substantial 'mortar' foundation for the east wall in Unit C. Labelled a horizontal destruction interface this is the surface at which the standing walls were demolished and covered over by a final layer of fill in Phase [35]. The final layer of fill is found in all Units. Destruction debris such as brick, some complete, limestone rubble, mortar and charcoal fragments were found. Interesting artifacts found include a US artillery button with eagle motif, a gilt, composite officers' button (unidentifiable) a British .69 calibre musket ball, .63 calibre US musket balls, .32 calibre buckshot, a gaiter button, a bayonet and tools – a flat file and wedge. The greatest number of artifacts comes from Unit C located near the entrance and away from the forge and hearth. Here an assemblage of 1400 artifacts includes over 379 nails, 120 pieces of window glass, 300 pieces of faunal bone, about 150 sherds of ceramic and smaller numbers of container glass, and clay smoking pipes. The domestic items in Unit C, near the entrance, represents a different type of assemblage from the Units associated with the hearth and forge. Likewise, in Unit D, at the back of the forge where evidence of a wooden floor was found, other domestic artifacts include nails and window glass, together with ceramics, container glass, faunal bone and two American .63 calibre musket balls. There is clearly a difference in the quantity and type of artifacts found within the smithy. Domestic items are more frequent in the areas where living space is evident presumably.

Period V – Siege and Abandonment ca. 1814/1823 Phases [36] and [37] These Phases are associated with fill deposits laid down after the fort was partially destroyed by the Americans in November 1814, and the period following this when the British abandoned the fort. The layers cover all previous traces of architectural remains of the smithy. The predominant fill layer is represented by Phase [36], which occurs in all Units. This is a 10-15 cm thick deposit of sandy loam with brick, mortar and charcoal inclusions throughout. Artifacts found include a high number of nails and a few items attesting to the American presence in 1814 and the subsequent British occupation: a copper gaiter button marked 'US', a silver-plated gaiter button, a Canadian Volunteer button, an American uniform button with eagle motif, .63 calibre musket balls, .32 calibre buckshot, British .69 calibre musket balls, buckles, and a set of cufflinks. Other artifacts are domestic in nature and include ceramics, container glass, and faunal bone. Historic period native artifacts include trade silver and a coil of scrap tin.

Figure 38 Unit C (facing north) showing Phase [36], the fill layer found in all Units in Area 1, and which covers all traces of the smithy.

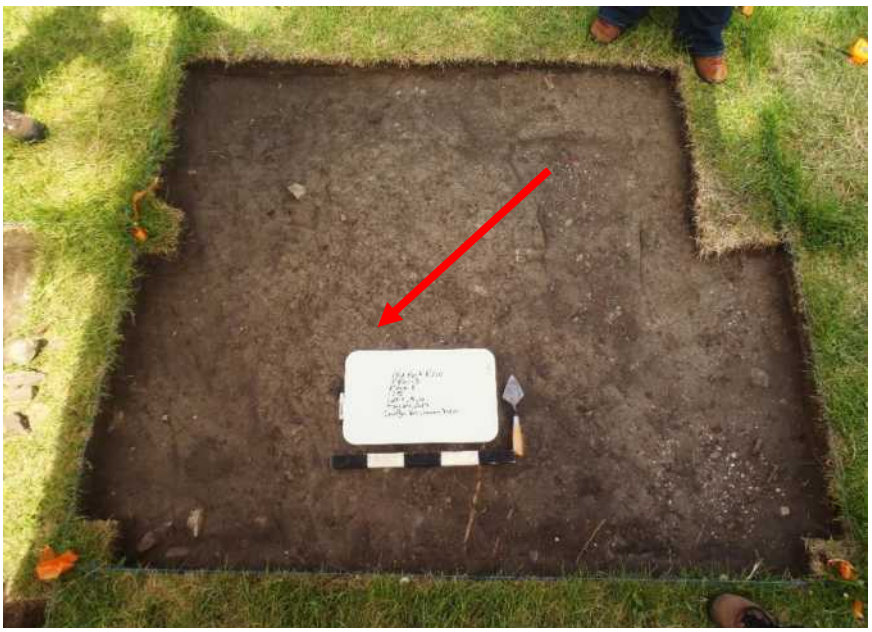


Figure 39 Unit B (facing north) showing Phase [38], the pinkish clay fill layer overlying the stone hearth/floor of the smithy.

Period VI – Post-Abandonment to 20th Century Phase [38] A single Phase defines this period, which only occurs in Unit B where a thin layer of compact, pinkish clay loam was found overlying the area of the hearthstones in front of the forge. The deposit contained only 21 artifacts consisting of bone mostly and a few sherds of ceramic and container glass, native chert and a musket ball. The pink

colour of the sediment may be attributable to brick dust from the destruction of a brick chimney.

Period VII – Modern Phases [39] to [42] The final Period is defined by the modern ground surface of sod and topsoil [41] and [42] and a thin layer of greyish brown clay loam that covers the entire excavation area 1 [40]. In Unit A, a thin layer of reddish clay may be a shallow pit feature with interface [39], although the depth was only about 2 centimetres. The lower fill probably represents the ground surface during the period following the reconstruction activities of the 1930s when the new park-like landscape was created. Material found in the earlier fill layer [40] include a mixture of 19th century artifacts such as ceramics, container glass, food bone, nails and window glass, together with 20th century artifacts such as cigarette tin foil and container glass. Interestingly, lithic debitage is found in all units, indicating that the landscaping fill is at least partially derived from buried subsoil that was disturbed during the excavation and grading that took place at this time.

Correlation Chart Area 1				(no lot 17)			
				17A	**17B**	**17C**	**17D**
Description	**Period Description**	**Period**	**Phase**	**Jesse**	**Lauren, Caitlin**	**Colleen and Simonetta**	**Brooke, Graham**
Sod		**VII**	42	1	1	1	1
Topsoil		**VII**	41	2	2	2	2
Clay layer and clay feature in corner of Unit A - thin clay layer		**VII**	40	3	3	3	3
Interface for feature	**Modern**	**VII**	39	4			
Light Clay	**Post-abandonment to 20th century**	**VI**	38		5		
Destruction layer - dark sandy loam with rubble		**V**	37		6		
Upper destruction Layer - lots of nails, US button, some brick, gaiter button, Roy. Can. Vol. button in Unit C	**Siege and Abandonment 1814/1823**	**V**	36	5	4	4	4
Lower Destruction Layer - lots of nails, US button, metal smoking pipe, lots of brick, some almost complete, mortar, and mortar patch in Unit D, silver plated button in C		**IV**	35	6	7	5	5, 8
HFI for wall		**IV**	34	18a			9a
HFI for mortar wall in Unit C		**IV**	33			6a	
Destruction layer - brown clay/loam and rubble		**IV**	32		8		6, 9c

Rubble - destruction layer- adjacent to hearth paving stones in B - lots of nails in C		**IV**	31	8, 11	10		7
Dark brown clay loam with brick lots of nails, fish bone, pewter button		**IV**	30				12
Dark loam w/ brick and mortar inclusions - nails, fish bone, scrap iron		**IV**	29				13
Rubble pit corner feature (17B)		**IV**	28		12		
Interface		**IV**	27		13		
Block of mortar in 17A, SE corner - destruction debris - scrap iron - padlock, chain in C	**Destruction ca. 1814**	**IV**	26	10			
Floor layer inside building probably - dark loam - William III coin, trade silver, fish bones and scales		**IIIb**	25		11		
Dark soil over floorboards - possible floor level inside building		**IIIb**	24	9			
Floorboards		**IIIb**	23	7			15
Sleeper (oriented NW-SE) - floor replacement due to fire		**IIIb**	22			9	10
Light brown/yellow soil around beam		**IIIb**	21				11
Upper sleeper, burnt (oriented NW-SE)		**IIIb**	20			12	
Sleeper, classified earlier as floorboard (oriented NE-SW)		**IIIb**	19	7a			
Earliest floor level - 3 thin layers - floor or subfloor layer - dark loam w/ brown clay		**IIIb**	18		14, 14a, 14b		

mottling - fish bones, scrap metal, nails, container glass							
Medium brown clay loam in 17D - sub-floor level - only few pieces of food bone and 1 nail found		**IIIb**	17				14
Dark soil w/ mortar inclusions under rubble and under floorboards - US button may be intrusive	**Smithy Occupation**	**IIIb**	16	12			
Flat paving stones in front of forge – hearth/working floor		**IIIa**	15		9		
Builders trench, 17A - Royal Reg. Artillery button		**IIIa**	14	13			
Wall foundation (9b) for building and forge foundation (9) in Unit D		**IIIa**	13	18			9b, 9
Trench interface		**IIIa**	12	14			
Mortar wall in Unit C - correlates with wall found in 2015 Unit E	**Smithy Construction**	**IIIa**	11			6	
Possible pit fill in Unit C - predates sleepers lots 9 and 12 - burnt artifacts - lots of bone, container glass, ceramics, native ceramics, pins, hawk bell, scrap metal - lower layer of fill in feature is lot 13 - ash and charcoal - in situ burning		**IIa**	10			11a, 13	
Interface for above pit		**IIa**	9			18	
Destruction debris - clay loam with brick and mortar -	**Early Building Destruction?**	**IIa**	8			7	16

window glass and few nails some chert - layer above A-horizon							
Subfloor clay layer with large artifacts - primary context		**II**	7			10	
Dark loam layer under 17C lot 10 - another subfloor layer but with lots of nails and pre-contact ceramics also - lg. pcs	**Early Building Occupation?**	**II**	6			11,14	
Possible pre-contact feature with pebbles in northwest corner of Unit - 1 piece chert and large mammal bone		**I**	5			15	
Possible pre-contact pit interface		**I**	4			15a	
A-horizon exterior to structure in Unit C		**I**	3			8	
A-Horizon (dark brown)		**I**	2	15	15	16	17
Sandy Subsoil	**Pre-Contact**	**I**	1	16	16	17	18

7.0 Area 2 Archaeological Chronology

Four 2 x 2 metre units and two 1 x 2 metre units were surveyed for Area 2 beginning on Wednesday May 10. These were designated as 17E-J as shown in the figure below. All units were situated to further define the footprint of the buildings investigated in 2015 (the officer's quarters and storehouse) and to better define the footprint of the double fireplace that was found in Units X and Y in 2015.

Figure 40 View from drone showing Area 2 Units (mostly shaded) at close of excavtion in June.

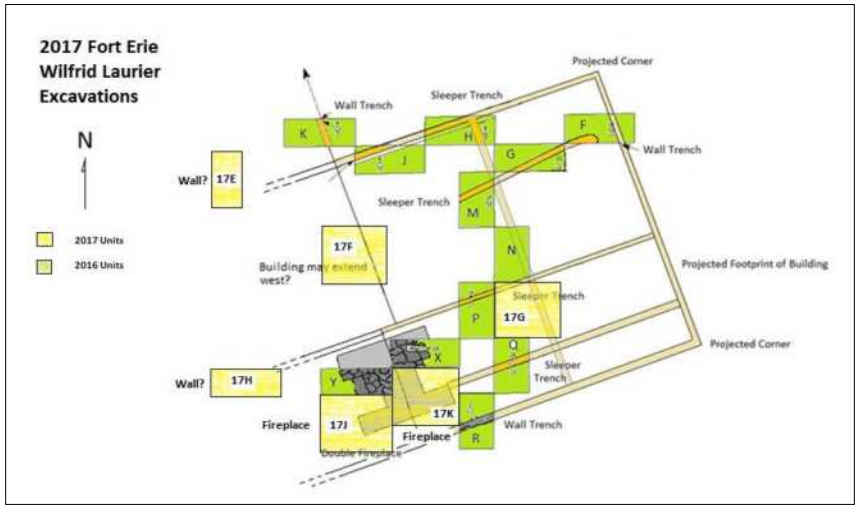


Figure 41 Planview showing 2017 Area 2 Units (yellow) and 2015 Units (green) with wall trenches and sleeper trenches.

The structure found in 2015 is defined by sleeper trenches and wall trenches, some of which contain physical evidence of timbers laid directly in the soil. In other areas, the trenches are of varying depth, excavated into the subsoil to a sufficient depth to create a level timber-frame foundation. The evidence for two buildings, built in the same location, or as an addition, is based on size and the arrangement of the sleepers and wall trenches. The core of the building is towards the south where a double, H-shaped fireplace is located. Aside from the fireplace itself, which indicates a comfortable dwelling, the recovery of status items such as officers' buttons, cufflinks, and other jewelry, together with relatively expensive ceramics suggest quarters for an officer, or perhaps officers, if the two rooms on each side of the fireplace served as separate living quarters. The recovery of utilitarian items such as tools, barrel hoops, and hardware, suggests that a larger building was present in the same location. Stratigraphic analysis suggests that the earlier building was demolished and the officers' quarters built later. The goal of the 2017 excavation was to expose more of the fireplace to trace the full outline of that structure and investigate other

sections of the officers' quarters; and to target strategically other sections of the larger structure to define the perimeter and other interior features.

The following is a Period-by-Period synopsis of the stratigraphic sequence with descriptions of each Phase. Accompanying the discussion are descriptions of the artifact assemblage focusing on Group and Class and the proportions these make up for each Period, in addition to descriptions of small finds. A more detailed description of the artifacts is found in the Artifact Catalogue, Appendix E, and the Artifact Analysis Section 9.0.

Stratigraphic Matrix Area 2

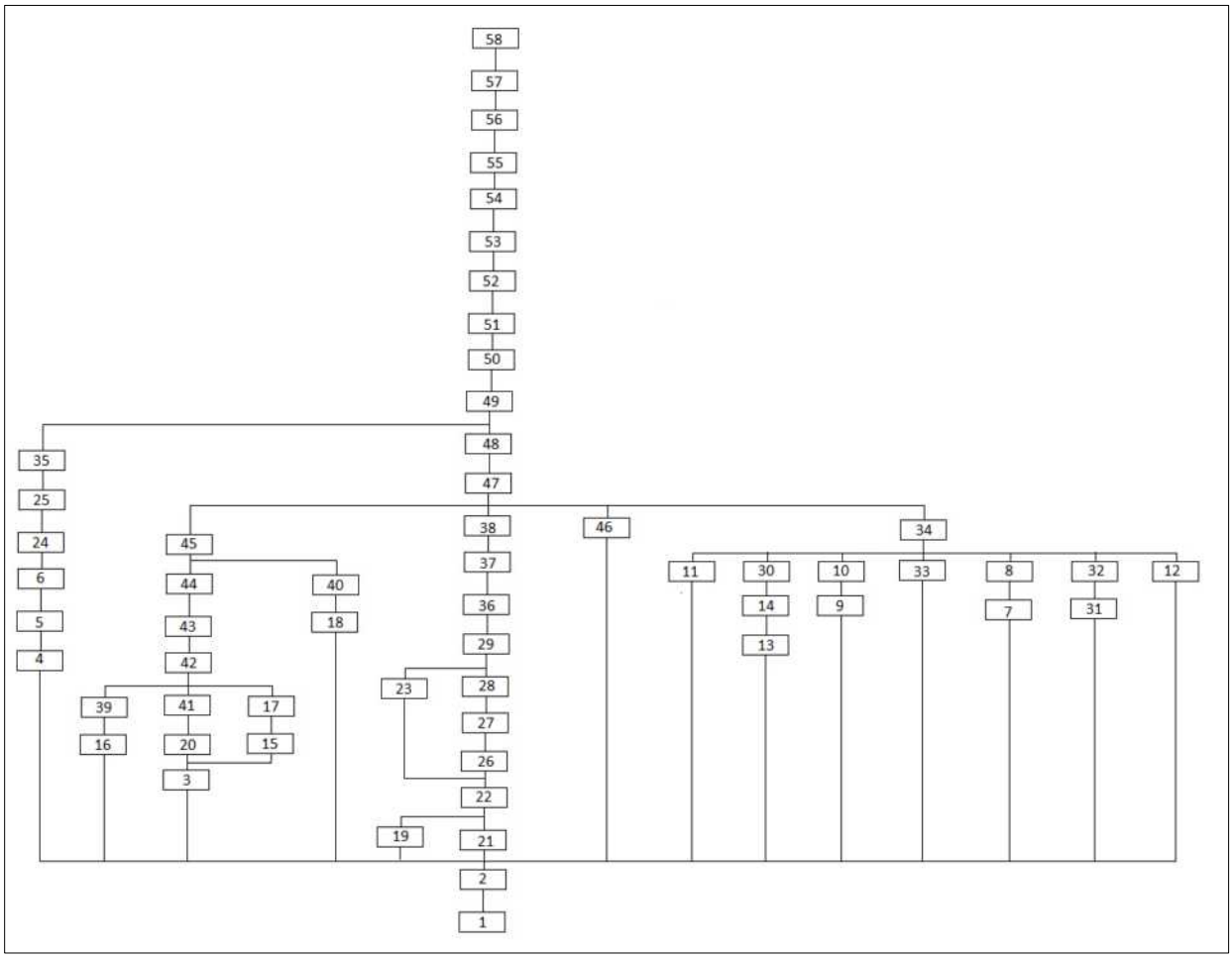


Figure 42 Harris Matrix showing all Phases defined for Area 2. This is based on superposition of all layers, features and interfaces defined during excavation.

Phase Matrix Area 2

Fort Erie 2017

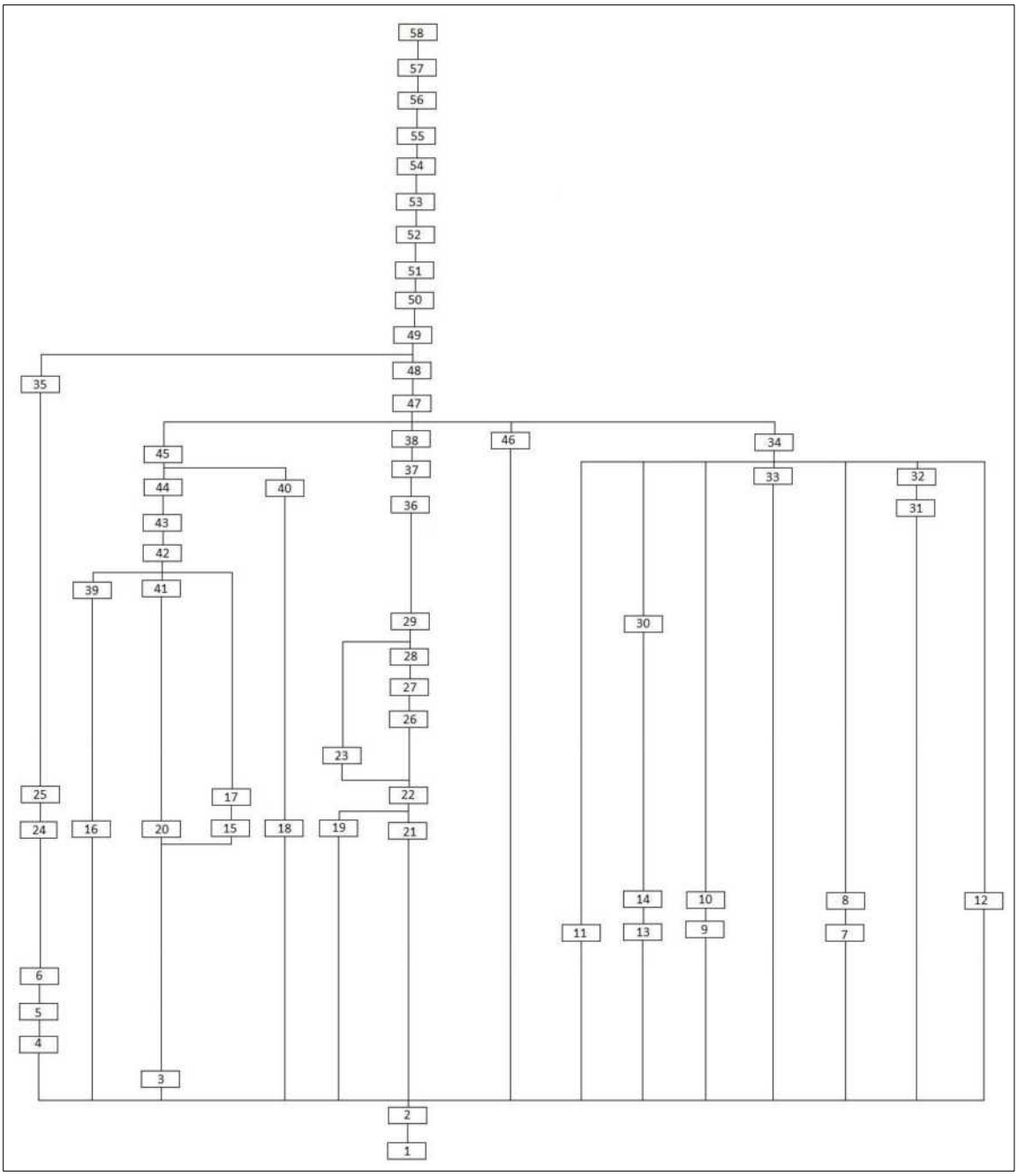


Figure 43 Harris Matrix showing all Phases defined for Area 2. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position by sliding the boxes on the vertical lines such that those on the same vertical position are assumed to be contemporary.

Phase Matrix Showing Periods

Area 2 Fort Erie 2017

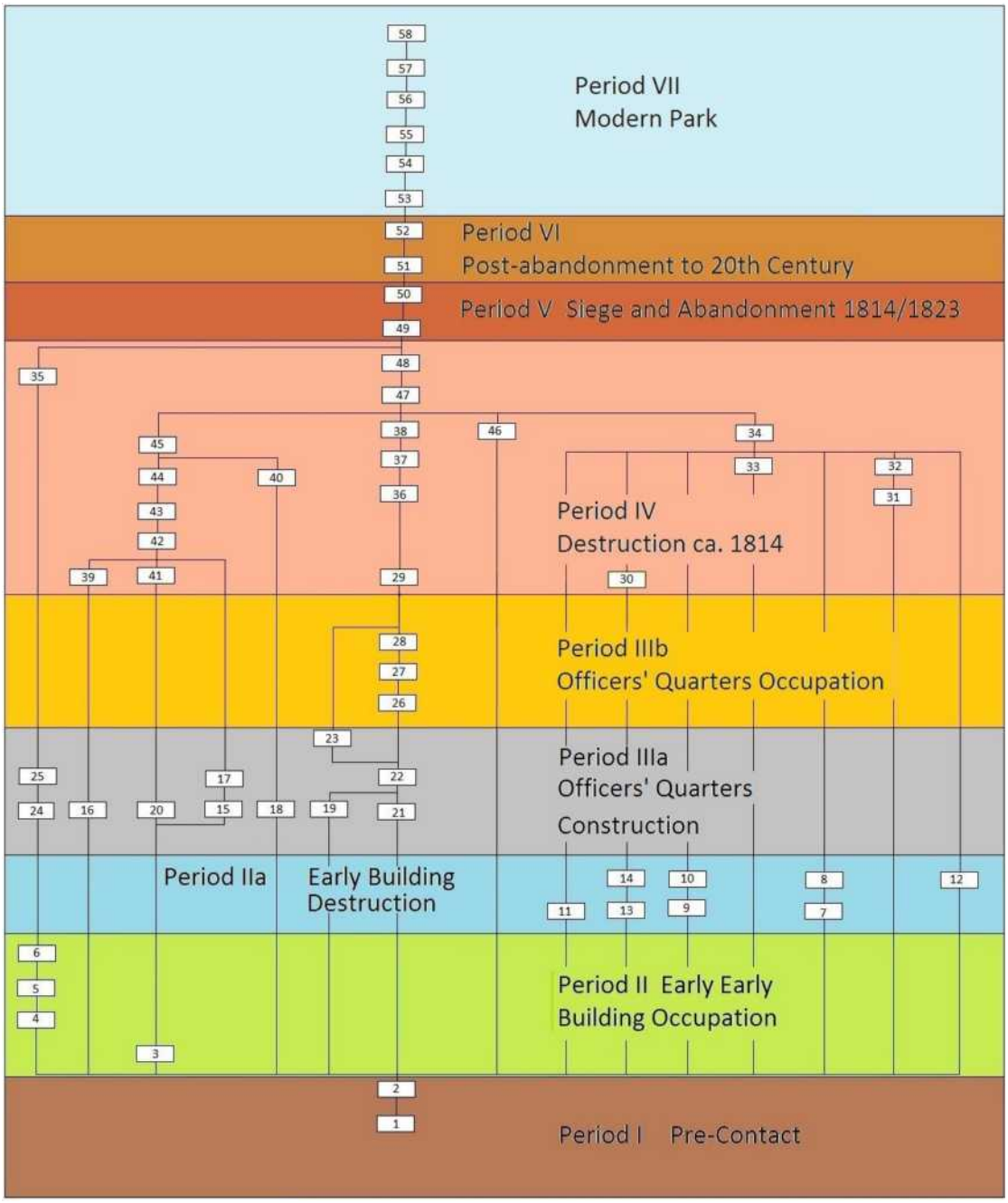


Figure 44 Harris Matrix showing all Periods defined for Area 2. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position and grouped according to major episodes in the history of the site, some of which can be dated using historical documentation.

Area 2 Stratigraphic History

Period I – Pre-Contact Phases [1] and [2] Subsoil [1] and a dark brown sandy loam buried A-horizon [2] define Period I. The soil horizon is found in every unit and varies in thickness from about 2 cm to about 10 cm. In Units F and K excavation continued for a depth of about 5 cm. into subsoil

Figure 45 Subsoil in Unit F.

Artifacts found in the deposits for Period I are those that are intrusive into the layer through cultural or natural means such as trampling, or bioturbation caused by burrowing animals, trees, or freeze-thaw. Artifacts recovered from the layer are therefore from the pre-contact period and the early historic period, representing thousands of years of occupation. The assemblage totals 932 and is composed predominantly of faunal bone (n 357) (fish, bird and mammal) followed by, in order of abundance, architectural items (n 250) (nails, window glass, brick, and misc. hardware), ceramic tableware (creamware, Pearlware and mid-18th century varieties such as Staffordshire slipware, and English tin-glazed) (n 180). The remainder of items include container glass, straight pins, buckles, a 1754 George II coin, a clipped Spanish colonial silver coin dated 1782, eight British uniform buttons, officers and other ranks, a single piece of clay smoking pipe, pharmaceutical bottle fragments, and pre-contact period native chert debitage, two projectile points and a copper pendant from the historic period. Possible female items include a shell button with floral design, a very small clothing buckle, straight pins, and a possible Dorset button ring. Status items/officers' items include gilt uniform buttons, a glass decanter fragment, a piece of stemware, and porcelain. The assemblage in its entirety seems to be associated with an officer and possibly his wife, during the earliest occupation of the area, in what is likely an officer's quarters.

Figure 46 Fire-reddened sand in Unit E adjacent to north wall of building.

Period II – Early (Married) Officer's Quarters Occupation Phases [3] to [6] Several events are related to the occupation of a structure that may be the first officer's quarters as described above. The first of these is a sub-floor layer found in Unit E [3]. The sand in this layer was a very distinct reddish orange colour, presumably discolouration as a result of fire, although the fire itself occurred at a later date in Period IIa (discussed below). Sleeper

trenches, defined by the interfaces in Unit H and J [4], although separated by several metres, run parallel to each and are oriented northwest to southeast. In Unit H, the sleeper trench fill [5] was not excavated because the sleepers were exposed on the last day of excavation. In J, the sleepers were difficult to discern during excavation, but they appeared to be spaced about 30 cm. apart, and present in the west side of the 2 x 2 metre Unit only. A 10 cm thick layer of dark grey sandy loam [6] was found on the east side of the Unit, in what would have been a sub-floor layer on the interior of the structure.

Figure 47 Unit J showing sleeper trenches on west side of Unit.

Only 71 artifacts were recovered from this Period and with the exception of a single sherd of creamware in Unit E [3], all other artifacts were found in Unit H [6]. These include 63 faunal bone fragments (mostly small fragments of bird and fish), a few pieces of window glass, two nails, 1 small piece of creamware, and a sherd of heavily patinated green container glass. The size of the artifacts suggests that these fell between the cracks in the floorboards. This is therefore, an occupation deposit and not a destruction or fill layer.

Period IIa – Early (Married) Officer's Quarters Destruction Phases [7] to [14] Five pits were found in Unit F, which together define events associated with the destruction of the earlier building described above in Period II. The pits are not contiguous and occur in different areas within the larger 2 x 2 metre square Unit. Based on the mixture of building debris and domestic items, the pits appear to have been excavated to dispose of material associated with the earlier Officers' residence. Of the 384 artifacts recovered from all pits, the majority of these (n 275) were found in a large pit in the northeast corner of the Unit, [9] interface and [10] pit fill. The pit is intrusive into the sandy subsoil for a depth of about 50 centimetres, has sloping sides, and is at least 1 metre in diameter. Artifacts found in this pit in order of abundance include bone (fish, mammal and bone), tableware ceramics (creamware, pearlware, porcelain), architectural items, including a wide-variety of nails (framing, flooring brads, window brad, and others) and window glass fragments, glass stemware, lamp chimney glass, smoking pipes, a straight pin, and native chert. The assemblage is similar to the Period I

Figure 48 Unit F showing refuse pits excavated into subsoil. (North to top of image.)

assemblage, items intrusive into the A-horizon, and even includes status items such as edge-lined gilt porcelain sherds. These appear to be items related to the occupation of the dwelling – a married officer's quarters based on the presence of female artifacts – and the later destruction of that structure.

One other similar-sized pit was found in the southeast corner, [7] interface and [8] fill. This pit measured at least 80 cm by 25 cm and was about 20 cm deep. Found within the pit fill were several large brick fragments, a few pieces of limestone rubble, charcoal and ash. The artifact assemblage is also similar to the pit described above for Phases [9] and [10], except for a smaller number of artifacts (n 52). Almost half of the assemblage is composed of tableware ceramics (creamware, pearlware, porcelain, Staffordshire slipware) - the same types as found in Period I. Other artifacts included faunal bone (mostly fish), a few nails, a straight pin, and two bone buttons - also similar to the Period I assemblage.

Figure 49 Unit F showing pit with rubble and brick fragments in southeast corner, Phases [7]/[8].

To other pits in the south side of the Unit, Phases [11] and [12], are much shallower than those in other Phases from this Period. Pit [12], located adjacent to the south wall, measures about 40 centimetres long by at least 15 centimetres, the fill of which contains charcoal and brick inclusions. Artifacts found in the shallow pit include only 8 pieces of bone (mostly fish), 4 different types of nails, 1 piece of chert debitage and 2 pieces of window glass. The context suggests that same type of demolition activity, but the pit appears to be a perfunctory excavation to dispose of a small number of items. Pit [11] is a sand-filled pit found in the centre of the unit measuring about 30 cm square and approximately 5-10 cm deep. The assemblage is small (n 32) and contains mostly fish bone, with a few different types of nails, a few sherds of Royal Pattern creamware, and a single piece of lamp chimney glass. In terms of the type of objects found, the assemblages from both pits are similar to Period I.

Finally, a small pit filled with dark brown sandy loam was found in the north side of the Unit where it intersects the north profile. The pit measures only about 30 cm diameter and is about 10 cm deep. No artifacts were recovered directly from the pit, although it is possible that any contained artifacts were excavated as lot 16, the subsoil into which it was cut.

Period IIIa – Second Officers' Quarters Construction Phases [15] to [25] This Period is marked by the construction of another building in the same location as the earlier married officer's quarters construction described in Period II. Several features are described below that point to the construction of a larger and more substantial structure with a double, H-shaped stone fireplace, masonry walls, and a cellar among other features. Unlike the earlier building, evidence suggests it was occupied by more than a single officer and may have served as an officers' quarters for two or more people. The first Phase in the Period is the north wall of the structure found in Unit E, and the west wall found in Unit H. Both units were strategically located this year to intersect the projected alignment of walls found in 2015.

The earliest evidence of the building is in the form of a dry-laid stone wall on the north and west sides of the structure. Phases [15] the builder's trench interface, [16] the wall foundation, and [17] the builder's trench fill are found in Units E and H, respectively. The north wall in Unit E was constructed by excavating a builder's trench, which cut through the fire-reddened sandy layer described in Period II, Phase [3]. The builder's trench is very narrow, and it appears as though the wall itself was constructed using the walls of the trench as the form for laying the stones – a technique referred to as 'trench-built'. Only two to three courses of stone were laid in the shallow, 20 cm. deep, builder's trench. The wall was built using small limestone blocks and no mortar. The largest of the limestone slabs measured about 20 cm largest dimension. After laying the foundation, the builder's trench was in-filled with brown sand/sandy loam, brown to reddish-brown in colour. A single wrought iron nail was recovered from the builder's trench fill.

Figure 50 Dry-laid stone wall foundation in Unit E, marking the north side of the officers' quarters. The foundation is the contiguous stones in the centre. The rubble on the north (right side of image) is the toppled stones from the demolition of the structure (north to right).

In Unit H, the west wall of the structure was also exposed. This wall was constructed of limestone slabs, and rounded stones, measuring at most 25 centimetres greatest dimension and about 10 - 20 cm thick. However, unlike the north wall, a single whole brick was incorporated into the foundation in this section of foundation. The brick would not have been visible above ground surface, and it was likely salvaged from the destruction of the earlier officer's quarters described in Period II. Only a short section of wall is visible in the west side of the unit. Although only a short section of wall is visible in Unit H, it appears to have been trench-built in similar fashion as the north wall foundation. No artifacts were recovered in association with the wall.

Figure 51 Dry-laid stone wall foundation in Unit H, marking the west side of the officers' quarters. The stones rest within a builder's trench.

The next major event to occur in this Period is the construction of the large double, H-shaped fireplace, evidence of which was found in Units J and K, Phase [18]. The feature was exposed partially in 2015, and Units J and K were strategically situated this year to expose the south section of the fireplace. The sections of fireplace exposed are the east and west 'arms' and the H-shaped, double fireplace. The northern section of this was found in Units X and Y in 2015, and excepting a small section of the north wall, most of the feature has now been documented. The fireplace is constructed of large, angular limestone blocks. These vary in size from 30-60 centimetres largest dimension and are bonded together with a lime-based mortar. The remaining height of the foundation above the hearthstones is about 30-40 centimetres. The hearthstones found in Unit K, Phase [19], are flat-lying and range in size from about 40-50 centimetres greatest dimension. These form a roughly level surface varying in height only a few centimetres over the exposed section. No mortar is visible between the hearthstones which are set upon the A-horizon, sandy subsoil.

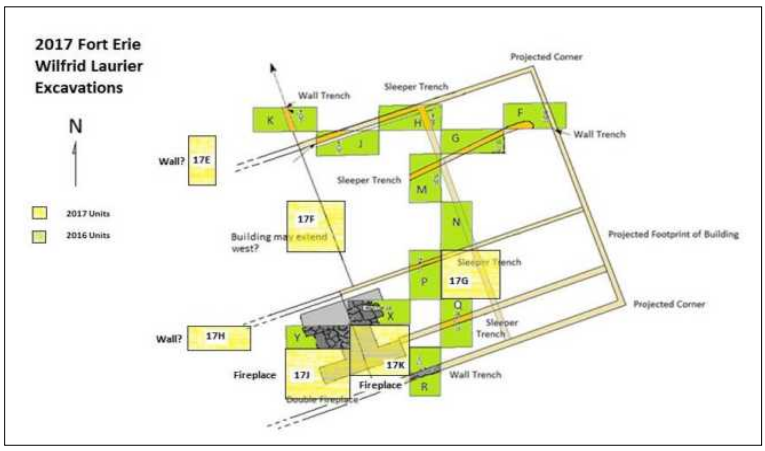


Figure 52 Plan showing units and double fireplace.

Figure 53 View of fireplace in Unit J showing the southwest corner of the feature in upper right. The stones in the bottom of the picture are not in situ and represent toppled stones during demolition. View looking north.

The fact that a fireplace is present suggests that it was once situated in a dwelling for heating purposes, and possibly cooking. Unlike the previous married officer's quarters this appears to have been a more substantial building in size, with a greater east-west dimension. The fact that the fireplace is double – with back to back hearths – also suggests that it may have housed more than one officer. The function of the dwelling as an officers' quarters is based upon the types of status items recovered from the associated occupation contexts described below in Period IIIb. A total of 27 artifacts were recovered from soil surrounding the fireplace foundation in Unit J. These were found adjacent to the fireplace foundation and are attributed to Phase [18] based on the context to which they were assigned in the field. The small assemblage contains 4 wrought iron nails, 3 pieces of window glass, 13 bone fragments, 1 piece of creamware, and 6 lamp chimney glass sherds.

Figure 54 View of southeast arm of fireplace in Unit K (mid-upper section) and hearthstones (right side). View looking west.

Figure 55 View of brick feature in Unit E (lower left), a presumed hearth for a fireplace in the northwest corner of the building. View looking west.

In Unit E a brick feature was exposed, Phase [20]. This single layer of bricks, measuring about 20 centimetres by 80 centimetres, was found in the south end of the Unit overlying the burnt sand described in Period II. The bricks are flay-lying and *in situ* and, although only a small section was exposed, they likely cover a larger area. The size of the feature suggests that it may have been a platform for a wood burning stove. The presence of a stove within this corner of the structure, some distance from the stone fireplaces, is the basis for inferring that the dwelling was more substantial than the earlier married officer's quarters. The stove in unit E points to a difference in room function, possibly a bed chamber as opposed to the front rooms/cooking area in Units J and K.

In Unit G evidence of a cellar was found in the west side of the unit during the final week of excavation. This is defined by a row of contiguous bricks running in a roughly northwest-southeast orientation, parallel to all other walls and features associated with the structure, Phase [21]. The bricks were exposed below a layer of dark clay loam, about 5-10 centimetres in thickness [22]. The cellar itself is confined to the west edge of the unit on the west side of the bricks in a strip measuring 10-40 centimetres. No excavation was done in the level below the surface of bricks. The presence of a cellar is further suggested by adjacent Unit P excavated in 2015. This unit measured more than 1.20 metres in depth and contained a pit/post feature and an artifact assemblage numbering in the thousands. The evidence from Unit 17G, located to the east, is that the cellar may have been brick-lined, although this can only be determined with further excavation. No artifacts are associated with the unexcavated cellar.

Another feature in Unit G is a possible wall foundation, Phase [23], located on the east side of the Unit, running in a northwest-southeast direction parallel to the cellar wall and all other structural features associated with the building. The wall is in the same alignment as a sleeper trench documented in 2015 in Unit H several metres to the north. If the wall in Unit G is a continuation of that feature found to the north, the estimated size of the structure, north-south, is about 9 metres (30 feet), and east-west about 8 metres (26-27 feet). Although the wall projection differs in that no stones were found in the sleeper trench in Unit H to the north, this may indicate either a robbed-out trench, or an addition to the original building. The angular limestone foundation stones in Unit G measure between 40-60 centimetres, greatest dimension and are visible for only a single course, which rest on a layer of sandy loam described above in Period IIIb.

Figure 56 View of Unit G, looking north, showing row of bricks presumed to be in situ on the edge of a cellar located to the west (left) of the Unit where evidence of a cellar was found in Unit P in 2015. The stones on the left are a possible wall foundation marking the east side of the structure.

The final two Phases in this Period are found in Unit H on the west side of the building, Phases [24] and [25]. During the last week of excavation, what appear to be floorboards were found in a trench running parallel to the wall foundation described in Phase [16]. Several nails exposed in association with the floorboards may be *in situ*. These were recorded, but not excavated due to time constraints.

Period IIIb – Second Officers' Quarters Occupation Phases [26] to [28] This Period is defined by what are identified as occupation deposits found in Units G and F. In Unit G Phase [26] is a deposit of greyish brown clay loam with mortar inclusions. The layer overlies the brick cellar wall feature described above in Period IIIa and is about 0.5 to 5 cm in thickness. Artifacts found in the deposit are few in number (n 18) and consist of 2 nails and a piece of pane glass, 3 fragments of faunal bone, 4 sherds of creamware and Pearlware, 6 green bottle glass shards, 1 piece of scrap metal and a single shard of pharmaceutical container glass.

Figure 57 View of occupation layers in Unit G (view looking north). The stones on the right are topple from the foundation wall on the east (right) side of the Unit.

Phases [27], interface and [28] fill, mark a shallow feature composed of a mixed deposit of sand, clay and loam with mortar, charcoal and brick inclusions. The feature measures at least 60 x 40 centimetres in area and is about 15 centimetres thick. It is located adjacent to the Phase [26] deposit in the southwest corner of Unit G and appears to be related to the cellar. About 200 artifacts were found in the feature. The assemblage composition is about 25 window glass, a few nails, 40 bone (mostly fish), and 30 tableware ceramics (creamware, pearlware and porcelain). A few shards of container glass and a smoking pipe fragment round out the largely domestic assemblage. A spigot and barrel hoop suggest a storage function for the adjacent cellar.

Period IV – Officers' Quarters Destruction Phases [29] to [48] This Period is defined by several events or Phases related to the demolition of the officers' quarters in the aftermath of the American occupation of the fort, ca. 1814. In Unit G, Phase [29] is a layer of sandy loam with inclusions of rubble, charcoal, limestone rubble, pebbles and clay, about 5-10 centimetre thick, which covers all earlier traces of the foundation wall and brick cellar edge. A considerable number of artifacts were found (n 617). Over 100 wrought iron nails and 20 pieces of window glass attest to the identification of this layer as a destruction deposit. Other debris includes three hinges, a padlock, a few spikes, scrap metal, barrel hoops, a spigot and brick fragments. More than 200 fragments of bone were recovered, mostly mammal but also bird and fish. Clothing items include two buttons, one an unmarked uniform button, and several pieces of bone blanks. The button blanks indicate on-site manufacture of these items. These, together with the storage items, barrel hoops, spigot and padlock, suggest a utilitarian function for the structure at some time in its existence, or at the very least, the storage of items in the cellar. Of the 170 ceramic sherds recovered most of these are tableware (n 164) representing a wide variety of types: creamware, pearlware, white salt-glazed stoneware and porcelain. Utilitarian wares are few but include slipware and Derbyshire stoneware. Wine bottles and glass stemware were also recovered from this context suggesting a household of higher status. Other domestic items include a single smoking pipe fragment and 15 pieces of lamp chimney glass.

Figure 58 Phase [29] in unit G showing rubble from wall destruction. The wall itself and the brick edge of the cellar from Period IIIa are covered by this deposit.

Figure 59 Phase [30] deposit in Unit G covering all earlier pits from Perio IIa. View looking north.

In Unit F, several small, shallow pits and a couple of thin layers of fill were found overlying all earlier pits from Period IIa. The earliest of these is Phase [30] is a layer of dark brown sandy loam about 5-10 centimetres thick containing inclusions of brick, mortar, charcoal, and wood fragments. A total of 444 artifacts were found in the layer. As with Phase

[29] nails and window glass make up more than 25 of the assemblage. A barrel hoop was also found, similar to that in Phase [29]. Other similarities between the two Phases are the large number of bone fragments, almost 200, consisting of mostly mammal and fish, with some bird. A few buttons were also found, two of which were military and unmarked, or indecipherable. Of the 74 ceramic sherds, these consist mostly of creamware and pearlware but also include porcelain. The presence of stemware with the porcelain, as well as lamp chimney fragments, and a brass furniture tack, provides further evidence that the structure was occupied by someone of status as would be expected for an officers' quarters. A few native items such as chert debitage and one sherd of cord-wrapped stick impressed pottery were also recovered, probably from earlier contexts excavated during the filling activity.

A small clay-filled pit, [30]/[31] interface, and was found in the north part of the unit. The pit has no obvious function and did not contain any artifacts.

Another shallow pit was found in the southeast corner of the unit, Phase [33]. This contained a few complete bricks and large brick fragments together with other artifacts. Of the 39 artifacts recovered, the proportion of nails and bone is similar to other Phases in this Period. A couple of pieces of window hardware and unidentified hardware were also found, attesting to the destruction activity associated with this Phase. A small number of ceramics, container glass, and smoking pipe fragments round out the assemblage.

Phase [34] is a deposit of dark grey sandy loam, about 5-10 centimetres thick, which covers all earlier Phases in this Period in Unit G. The layer is rich in material culture containing almost 1400 artifacts. Nails and window glass make up between 25-30 of the assemblage as in other Phases for this Period. New items include a horse bridle and shoeing nail. A bale seal, barrel hoop fragment and bone button blank provide further evidence of the utilitarian function of the structure. The lead bale seal has been modified with a hole through the centre. It is marked London/MAUDUIT. Mauduit was a merchant in the Massachusetts Bay colony who was an agent for London from 1746-1762. His agency ended in 1765, although his brother, Israel Mauduit, who died in 1787, may have continued the business. Also found was an officer's button with traces of gilt, and a bone button. Over 500 bone fragments were recovered. Fish are twice as numerous as mammal with some bird also. The mammal bone is generally larger than pieces found in an overlying layer, Phase [47]. Ceramics are also quite abundant and make up more than 25 of the assemblage. Tableware varieties include the ubiquitous creamware and pearlware, together with porcelain, and yellowware. A couple of mid-18th century types were also found: white-salt-glazed stoneware with a scratch blue design, and Staffordshire slipware. The presence of 18th century types together with the bale seal provide strong evidence that the structure is associated with the occupation of Fort Erie in the last third of the 18th century. Container glass and smoking pipe fragments were also found. The presence of stemware, lamp

Figure 60 Phase [34] deposit in Unit G. View looking north. This layer was one of the richest artifact deposits found in Area 2.

chimney glass and a brass tack further point to the occupation of the building by someone of status. A clasp knife also represents a unique find.

Figure 61 Phase [35] in unit H. View looking north. The brick in the upper left section of the image rests within a possible sleeper trench running parallel to the west wall of the structure – left.

In unit H three superimposed layers are found adjacent to the west foundation wall on the interior of the building. The lots are within a trench that does not appear to be a builder's trench for the wall, but instead appear to be related to a sleeper that might have been removed during the destruction of the building. A floorboard found at the bottom of these layers, described I Period IIIa, may have been deposited into the trench after the sleeper was removed. Of the 149 artifacts found in this Phase, most of these are nails and window glass, followed by almost equal numbers of bone fragments (predominantly fish). Ceramics are found in small numbers and include creamware and pearlware. A few pieces of container glass round out the domestic assemblage of items.

Another layer in unit K is also assigned to Phase [35]. This deposit of brown clay loam overlay the earlier stone hearth. The deposit was only about 2-3 centimetres thick but contained almost 800 artifacts. About 25 of the assemblage is composed of equal numbers of nails and window glass. The relatively high number of window glass shards is significant. This is the side of the building that would have faced the lake. Almost half of the assemblage is composed of faunal bone with some bird but predominantly fish and mammal in roughly equal numbers. Ceramics (creamware, pearlware, porcelain and scratch blue white-salt-glazed stoneware) and container glass make up roughly 25 of the assemblage. A bone button blank was also recovered in this unit. Also found was a 5th Regiment of Foot enlisted men's button (1792-1796), and another two-piece military button (unidentified), and a shoe buckle. The similarity between items found here, near the front of the building, with those found in other areas of the structure, points to a contemporaneous deposition of fill over the demolished building.

Figure 62 Phase [35] in unit K, view looking north, showing rubble from the fireplace demolition.

Phase [36] is a mixed layer of dark grey loam, sandy loam, clay, with brick, charcoal, mortar, pebbles and cobbles found in unit G. The layer is about 1-5 centimetres thick and covers most of the unit area. Artifacts are relatively abundant (n 452) and consist of about 33 bone (mostly mammal and fish) and 33 ceramics (predominantly creamware and pearlware but also porcelain and Staffordshire slipware). One interesting item found is a wardrobe hook, along with the usual bone button blanks, and lamp

chimney glass. The layer is another in a succession of fill deposits that covered earlier architectural features, in this case the east wall foundation.

Figure 63 Phase [38] pit fill in southeast corner of unit G. View looking north.

In unit G, a shallow pit, 15 centimetres deep, filled with mortar, and rubble, defines Phases [37]/[38], interface/pit fill. The small pit is located in the southeast corner of the unit where it is intrusive into Phase [36]. Artifacts found are few (n 66) and include 25 ceramic sherds (creamware and pearlware), with lesser numbers of bone and nails. The base of a stemware wine glass is a status item providing further support for the identification of this structure as an officers' quarters.

Phases [39] and [40] mark the destruction of west and north wall foundations and the fireplace foundation, respectively. The west wall is found running through unit H. All that remains of the wall in this location is a single course of stone in a roughly level plane. The stones are not mortared together and are referred to as dry-laid. In unit E, the north wall is similarly a single course of un-mortared stones. The presence of stone rubble adjacent to the foundations [46] indicates that these were at least another course in height, possibly two courses, but there is no evidence for the walls to have been any higher at any time during the occupation of the structure. Instead, the walls likely served as foundations for timbers laid upon them as base plates upon which a frame superstructure was probably built, based on the quantity of nails present in the destruction deposits in this Period.

That the stone chimney/fireplace stood much higher is evidenced by the considerable quantity of stone rubble removed from the excavation units in this area, units J and K. The stone rubble covered the remains of the stone fireplace which was demolished to ground level – the same approximate level as the foundation stones for the north and west walls.

Figure 64 Phase [39], the north wall in unit E. The wall foundation is the lower row of stones and the rubble from the demolition of the wall is to the top of the image [46]. The ash layer, Phase [42] is flanked by the sleeper trenches (dark soil on right and left), Phase [43]. View looking north.

Figure 65 Clockwise from upper left: Unit K showing the rubble overlying the fireplace foundation and hearthstones; the fireplace wall and hearthstones below the rubble; (lower) quantity of rubble removed during excavation and exposure of the demolished fireplace.

Phase [41], the surface of the possible brick hearth is found in unit E. As described in Period IIIa, if this is a hearth it was left *in situ* when the building was demolished. A layer of ash adjacent to the hearth, Phase [42], probably represents a burnt wooden floor adjacent to the hearth. The layer consists of pure ash with charcoal inclusions. Of the 85 artifacts found in the layer, more than half of these are nails with a couple of pieces of window glass. A few sherds of ceramic were found (pearlware and porcelain). Sixteen pieces of smoking pipe were also found in the layer. One marked bowl fragment, TD, was among the pieces. This quantity of smoking pipes differs significantly from the single fragments recovered from other destruction Phases in this Period. Context may account for the higher frequency of smoking pipes here if the brick platform is for a wood stove as suggested above in Period IIIa. The stove would have provided a comfortable location for a leisurely smoke. Several pieces of sheet metal found in this layer may be the remains of stove pipe.

Two floor sleeper trenches found in unit E are assigned to this period, Phase [43]. The trenches are filled with clay loam and run parallel to the brick platform, Phase [41] and perpendicular to the north wall foundation. No evidence of wood was found in the trenches and it appears as though the sleepers were removed during demolition as in unit H, Phase [35]. The small assemblage includes 16 wrought iron nails, and 10 sherds of tableware ceramic. The relatively high number of nails in the small trenches suggests the removal of a floor.

Figure 66 Phases [44] and [45], fill layers surrounding fireplace in unit J. The southwest arm of the fireplace foundation is in the upper right – view looking north.

In unit J a 10-centimetre thick deposit of sandy loam with brick, mortar and charcoal inclusions was found on the west side of the fireplace foundation, Phase [44]. The deposit had some large pieces of limestone rubble sitting on the surface and larger cobbles and stones within the deposit itself. A total of 112 artifacts were found. The assemblage was composed of roughly 25 nails, and about 50 faunal bone, mostly mammal. A few sherds of feather-edged creamware and container glass were also found. Interesting items include a buckle and cufflink. Phase [45] is another fill deposit found in units J and K. This deposit of clay and loam was found in amongst the rubble of the toppled fireplace/chimney. Of the 188 artifacts recovered from these contexts window glass predominates (n 82) and this is found almost exclusively in unit K. As noted above, the presence of a lake-facing window at the front of the building is likely given the abundance of window glass here. Nails are also abundant as in other fill layers within this Period. Bone, tableware ceramics (pearlware, creamware, porcelain) and container glass are also present in smaller numbers. A single button and piece of a smoking pipe were also found.

The most pervasive destruction layer across Area 2 is represented by Phase [47]. This dark brown loam deposit ranges in thickness from 10 to 25 centimetres and is found in units E, F, G and K. It covers all

Figure 67 Phase [47] the dark loamy layer covering all traces of rubble from the destruction of the building. Unit F (left) and unit G (right).

rubble destruction debris and earlier architectural features. Artifacts number almost 3000 and consist of bone predominantly, followed by tableware ceramics (creamware, pearlware and white salt-glazed stoneware with scratch blue design) and architectural debris (nails and window glass). By far the greatest number of artifacts was found in unit F (n 1851). This area appears to have been a preferred

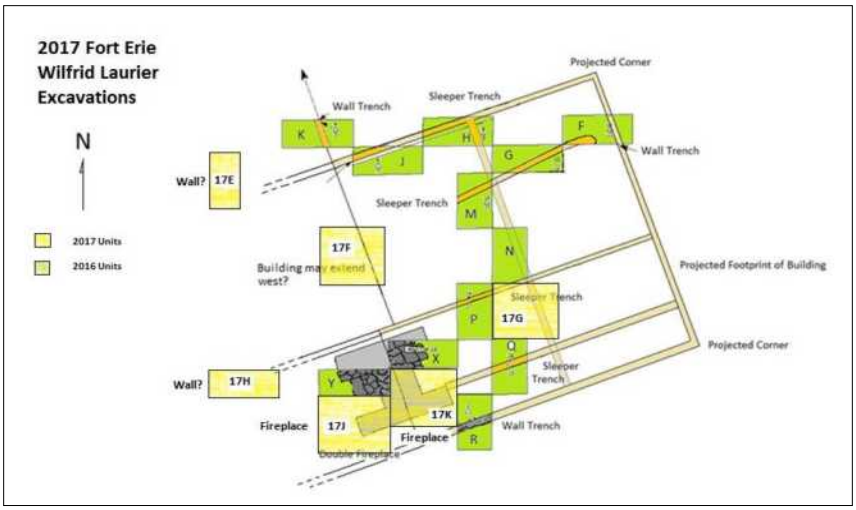


Figure 68 Unit F located in the centre of the building based on the projected walls on the east running north from unit G and east through units E and H. The projected east wall of the building running through unit F is based on the 2015 excavations and the location of a single sleeper trench.

location for disposing of refuse and architectural debris from the demolition due to its being situated in the centre of the structure. Architectural debris in this unit includes 433 wrought iron nails and 175 pieces of window glass. Ceramic tableware is the most abundant artifact type (n 588) and includes the following waretypes: creamware, pearlware, porcelain, yellowware, and the mid-18th century white salt-glazed stoneware. Utilitarian wares and container glass are also abundant. Faunal bone is also well represented with 371 fragments, mostly mammal followed by lesser numbers of fish and bird. Status items include glass stemware, porcelain and lamp chimney glass. Interesting small finds include a copper coin (indecipherable but likely George III era), two 34th regiment buttons (1783-1786), 3 gaiter buttons, a Royal Canadian volunteer button (1796-1802), a Royal Regiment of Artillery button (1792), a bone button, and other unidentifiable buttons, a gunflint, fishhook and straight pin, and a few pieces of smoking pipes. The deposit appears to date to the last two decades of the 18th century based on the buttons and ceramics. Almost 1000 artifacts were also found in unit G in Phase [47]. As with unit F ceramic tableware makes up about 40 of the assemblage followed by about 33 nails and window glass. Faunal bone is also abundant. Interesting small finds include a sear spring and trigger guard for a musket, various buttons, bone button blanks, a hook and eye, straight pin, lamp chimney glass, barrel hoop fragments, and smoking pipe fragments. In general, the artifacts found in this Phase represent an amalgamation of all activities – domestic, leisure, utilitarian and industrial – found in other Phases associated with the destruction Period.

Figure 69 Unit J, Phase [48] fill layer covering most of the fireplace foundation with the exception of the highest stones in the north east corner of the unit (upper right).

Phase [48] is the last phase in this Period. A deposit of sandy loam with brick, charcoal, ash and mortar overlies the destruction interface of the north wall in unit E and most of the fireplace foundation in unit J. The fill covers almost all traces of the architectural remains of the building. Artifacts number 334 and are equally distributed between the two units.

Destruction debris consisting of nails and window glass is abundant in this Phase. Ceramic tableware (creamware, pearlware, porcelain and scratch-blue white salt-glazed stoneware) and bone are present in approximately equal amounts. Small finds include a straight pin, shoe buckle, native trade silver and a piece of snipped copper.

Period V – Siege and Abandonment 1814/1823 Phases [49] and [50] This Period is defined by a widespread deposit of clay-loam found in all units across Area 2. The reddish grey-brown deposit is about 5-10 centimetres thick and contains inclusions of mortar, charcoal, brick, limestone, and pebbles. In units H and J the surface of the layer is at the approximate elevation as the wall foundation and uppermost fireplace foundation stones, although stones defining these features were covered during the earlier Period IV. In unit K, an upper layer of fill, Phase [50] covers all traces of the fireplace foundation and rubble. This is a fill deposit that appears to date to the period following the withdrawal of American forces in fall 1814 up to the abandonment of the fort in the early 1820s. The purpose appears to have been to create a relatively level ground in front of the fort devoid of obstructions.

Figure 70 Unit G, Phase [49] fill layer covering all traces of earlier walls and rubble. View looking north.

The layer is rich in artifacts dating to all periods of the fort's occupation suggesting that some excavation into earlier layers probably occurred during the deposition of the fill layers. All artifacts found are in secondary context and do not represent activities occurring in specific locations. However, the assemblage of 2915 artifacts found in all units represents the same type of material found generally in all earlier Periods. Tableware ceramics are the predominant class of material. A total of 1303 sherds were recovered representing a wide variety of 18th and 19th century types: creamware is by far the most common (1760-1820), followed by pearlware (1780-1830). Other types found include porcelain (18th and 19th century), white salt-glazed stoneware (1720-1770), scratch-blue stoneware (1765-1795), Staffordshire slipware (1675-1770), and English/Dutch tin-glazed/delft earthenware (1630-1790). Among the pearlware and creamware decorative varieties include printed, banded, edged, painted and lustre. Utilitarian earthenware is also

Figure 71 Unit J, Phase [49] fill layer covering the fireplace foundation, a few stones of which were visible in the earlier period (upper right). View looking north.

present in much smaller numbers. Container glass is likewise present but in small numbers (n 80). A small number of glass stemware and lead crystal shards of unidentified glassware was also found. Food bone is well represented (n 373) with mammal bone predominating over bird and fish. The Architecture group is the most numerous next to Food Preparation. Of the 789 artifacts, nails are the most common (almost all are wrought) followed by window glass.

A US infantry military button was found together with two gaiter buttons of unknown origin. Other small finds include a shoe buckle, 4 American musket balls, two gunflints, a slate writing pencil, 53 fragments of bone button blanks, 2 lice comb fragments, a piece of trade silver, lamp chimney fragments, and a few pieces of smoking pipe.

In general, the assemblage mimics the artifacts from all earlier Periods. The artifacts date from the earliest occupation of the fort in the 1760s/1770s up to the American occupation in 1814. Status items such as crystal stemware and porcelain provide further evidence of an officers' quarters in this location, assuming that the artifacts in the fill are from the general vicinity of Area 2. Importantly, about 38 of the artifacts are found in unit F, located in the approximate centre of the building, suggesting that the material does in fact originate from the building and not elsewhere on the larger site.

Period VI – Post-Abandonment to 20th Century Park Phases [51] and [52] This is another widespread landscaping fill found in every unit across Area 2. The dark greyish brown sandy loam layer is about 5-10 centimetres thick and has inclusions of brick, mortar and charcoal, but with almost no limestone rubble. The absence of limestone rubble is what differentiates this deposit from the earlier Period V layer. The layer may in fact represent the landscaped surface of the newly created park from the 1930s, a former sod layer as seen on photographs from that period.

Figure 72 Unit K, Phase [52] fill layer – ground surface for Historic Fort Erie park, ca. 1939. View looking

Figure 73 Unit G, Phase [52] fill layer – ground surface for Historic Fort Erie park, ca. 1939. View looking

Artifacts are slightly more numerous than Period V (n 3097) and date from all periods of the fort's occupation. As in all earlier Periods, most artifacts are found in Unit F located in the approximate centre of the building. The suggestion is that mechanical grading at this time may have disturbed earlier layers – particularly the Period V landscaping fill – after which the newly created level surface was apparently covered in sod.

The more than 300 artifacts found among the artifact Groups and Classes mimics Period V. Almost identical proportions of Architectural items (mostly nails followed by window glass), tableware ceramics and food bone are found in this Period as in the earlier Period V. Ceramics types are also very similar between the two periods and include mostly

creamware followed by pearlware. Other types include porcelain, white salt-glazed stoneware, delft/tin-glazed, Staffordshire slipware, and black basalt (1760-c.1810). Utilitarian wares and container glass are also found in almost the same proportions as Period V. Small finds include a furniture tack, lamp chimney glass, smoking pipe fragments, an eyeglass part, tinkling cone, a clothing buckle, hook and eye, suspender brace, a few musket balls and a British 26th Regiment of Foot button. The regiment was posted at Fort Erie between 1790 and 1792.

In general, the assemblage resembles the earlier Period V in terms of the types and quantities of classes of artifacts. Both 18th and 19th century military occupations of the fort are in evidence based upon the ceramics and other datable items found.

Period VII – Modern Park Phases [53] to [58] This Period probably dates to the last three or four decades when the park was used for military re-enactments and a major tourist attraction. This is essentially the modern ground surface, sod Phase [58], overlying a thin topsoil layer [55] found across the entire Area 2 excavation site. Evidence of re-enactor activity event was found in units F, G, J, and K, Phases [53] and [54]. In these locations shallow (5 cm deep) fire-pits were found directly below the modern ground surface. At the time, re-enactors used to camp out on the site for weekend events and fire-pits were a common camp activity. A 70 cm-deep pit, 30-35 centimetres in diameter, found in the west wall of unit J, represents modern archaeological investigation on the property. The pit was one of about 100 pits excavated during the Stage 2 survey of the area in 2015 by Wilfrid Laurier students (see Triggs 2015).

Despite the fact that this is a modern layer, artifacts found in this period date to all Periods of the fort's occupation from the 18th century to the present. Of the more than 900 artifacts found, 1/3 of these are ceramic tableware (creamware mostly followed by lesser amounts of pearlware). Porcelain, yellowware and white earthenware also occur in small numbers. About 1/3 of the assemblage is also comprised of Architectural items – nails mostly and window glass. More than 20 of the material is food bone. Interestingly, the percentages of each above class of material is similar to that found in Periods V and VI.

Figure 74 Connecticut colonial cent, dated 1787, similar to coin found in unit F, lot 2. http://www.coinlink.com/News/us-coins/colonial-coins-the-connecticut-coppers/

Other items found include container glass, smoking pipe fragments and scrap metal. Several coins were also recovered from the 1940s to 1990s, and one Connecticut colonial coin dated 1787. The coin is very worn and almost illegible but it appears to be the same as the one pictured below in Figure 74 . A snipped piece of copper and copper jangler, historic native trade items, were also found in this Period in the topsoil layer. Also recovered from the topsoil layer was a late 18th century naval officer's uniform button, with traces of gilt. Two gunflints and a .59 calibre lead ball were also found in the same layer. The recovery of 18th century artifacts only a few centimetres below the sod has been noted in past excavations (Triggs 2012, 2013, 2015). This serves to highlight the need for heritage preservation measures for the entire site, including the prohibition

against unlicensed metal detecting. Prospecting within the boundary of Fort Erie National Historic Site is currently prohibited by Niagara Parks Commission and is illegal under the Ontario Heritage Act.

Figure 75 Unit K showing re-enactor fire-pit as it first appeared below the sod filled with soil, ash and charcoal.

Figure 76 Unit K showing re-enactor fire-pit excavated into the topsoil.

AREA 2 CORRELATION CHART									
Description				**17E**	**17F**	**17G**	**17H**	**17J**	**17K**
		Period	**Phase**						
Sod		**VII**	**58**	1	1	1	1	1	1
2015 test pit		**VII**	**57**					15	
Interface		**VII**	**56**					16	
Topsoil		**VII**	**55**	2	2	2	2	2	4
Firepit - re-enactor		**VII**	**54**		5	3		3, 6	2
interface	**Modern**	**VII**	**53**		6	4		5, 7	3
Fill layer		**VI**	**52**	3	3	5	3	4	5
Uppermost fill layer overlying destroyed fireplace - lots of ceramics, nails, window glass, cannon ball - check - buckle, tinkling cone	**Post-abandonment to 20th Century**	**VI**	**51**						6
Upper fill layer overlying destroyed fireplace Unit K - lots of ceramic, gaitor button, bone, nails, window glass		**V**	**50**						7
Upper destruction layer with more stone and some larger brick fragments - charcoal and mortar also - Unit H has scratch blue stoneware, pearlware, creamware, nails and window glass - fewer artifacts in Unit K compared to upper fill layers	**Siege and Abandonment 1814/1823**	**V**	**49**	4	4	6	4	8	8
Destruction deposit with brick, charcoal, ash, mortar overlying HFI for wall lot 9 in Unit E, lots of nails, window glass, food bone, smoking pipes etc., ash and charcoal is evidence of burning		**IV**	**48**	6				9	
Dark loamy layer with lots of artifacts including ceramics, bone, buttons, a coin, etc. - destruction layer on exterior of building with less brick and mortar than lot 6, lots of nails and window glass - less evidence of burning here on exterior of structure suggesting fire contained to interior		**IV**	**47**	5	7	7			9, 10
Rockfall from destruction of exterior wall		**IV**	**46**	12					

Clay and Loam fill in between fireplace stones and in front of hearth		**IV**	**45**					12	11, 12, 13
Sandy loam deposit in front of fireplace with little rubble - and possible in situ artifacts		**IV**	**44**					11	
Sleeper trench fill - after destruction - in E - check with possible correlation with Unit E - sleepers run in a roughly northeast to southwest direction in H and 90 degrees to this in E		**IV**	**43**	7a, 7b				14	
Burnt floor layer with *in situ* ash		**IV**	**42**	8					
HFI for brick feature in Unit E - possible fireplace foundation		**IV**	**41**	10a					
HFI and fireplace foundation		**IV**	**40**					10a	13a
HFI for wall in Units E and H		**IV**	**39**	9a			13a		
Mortar filled feature in SE corner with lots of artifacts overlying lot 10		**IV**	**38**			8			
Interface for mortar and rubble filled pit		**IV**	**37**			8a			
Dark Sandy loam below rubble and lot 8 mortar feature in southeast corner which is intrusive into this		**IV**	**36**			9			
Robbed wall trench with brick and rubble in west side of Unit H - nails and window glass - fish bone in lot 7 - rubble in lot 8 includes brick and limestone that is oriented vertically - not flat; destruction deposit in Unit K overlying hearthstones		**IV**	**35**				5, 7, 8		14
Sandy pebbly lot with lots of artifacts showing on surface		**IV**	**34**		8				
Destruction deposit - brick-filled shallow pit in southeast corner - large bricks- few food bone, 9 nails and small number of other items		**IV**	**33**		11				
Small clay-filled pit		**IV**	**32**		10e				
Interface for above		**IV**	**31**		10f				
Sandy loam overlying several features in Unit F		**IV**	**30**		9				

Below lot 8 sandy loam with some rubble and clay showing on surface	**Destruction ca. 1814**	**IV**	**29**			10			
Clay loam with mortar in southwest corner - feature		**IIIb**	**28**			12, 14			
Interface for above		**IIIb**	**27**			14a			
Clay loam with mortar along west side	**Officers' Quarters Occupation**	**IIIb**	**26**			13			
This is the bottom of the wall trench that has not been excavated but possible floorboards and nails are being seen in the base of the trench along with burnt sand - not being excavated but exposed and labelled		**IIIa**	**25**				9		
Interface for wall trench in H		**IIIa**	**24**				8a		
Large limestones along east wall in situ possible wall		**IIIa**	**23**			11			
Dark clay loam layer covering the bricks lot 16 Unit G		**IIIa**	**22**			14b			
Bricks in situ possible cellar edge		**IIIa**	**21**			16			
Brick feature in Unit E - possible fireplace foundation		**IIIa**	**20**	10					
Hearth stones in situ		**IIIa**	**19**						15
Fireplace foundation		**IIIa**	**18**					10	16
Builder s trench fill below lot 8 ash and intrusive into burnt sand layer lot 13		**IIIa**	**17**	14					
North wall of structure Unit E, and west wall in Unit H		**IIIa**	**16**	9			13		
Builder s trench interface intrusive into burnt sand layer lot 13	**Officers' Quarters Construction**	**IIIa**	**15**	14a					
Small dark-loam-filled pit in north wall of Unit F - seen in profile		**IIa**	**14**		10c				
Interface for above		**IIa**	**13**		10d				
Pit feature adjacent to south wall with charcoal and brick inclusions - few food bone, nails and window glass		**IIa**	**12**		12a				
Sand-filled pit feature in centre of Unit with few bones 4 nails and 2 container glass		**IIa**	**11**		12b				

Large midden pit feature in northeast corner Unit F - loam and orange clay layer intrusive into lot 13 - quite deep - with hundreds of artifacts - ceramics, bone, nails, container glass, window glass, smoking pipes etc.		**IIa**	**10**		10a, 10b				
Interface		**IIa**	**9**		10g				
Large pit in in southeast corner Unit F - clay and sandy loam with brick and some small rubble fragments, charcoal and ash - bone buttons, pewter button 3 nails, pin, few bone frags.		**IIa**	**8**		14				
Interface for above	**Early Building Destruction?**	**IIa**	**7**		15				
In Unit H this is the layer in the east side of the Unit partially overlying the A horizon and truncated by the wall trench lots 5,7, 8 - lots of bone and no architectural debris/artifacts		**II**	**6**				6		
Sleeper trench fill in Unit H but not excavated - defined during cleaning of bottom of Unit and intrusive into A horizon		**II**	**5**				10		
Sleeper trench interface		**II**	**4**				11	14a	
Fire reddened sand below ash layer from in situ burned floor	**Early Building Occupation?**	**II**	**3**	13					
Buried A horizon - in Unit F found lots of nails, window glass, bone, and 5th Reg. button, George II coin - 1754 - Unit G - partially excavated clay mortar and brick pieces - this is the surface that is showing up at the close of excavation and the layer upon which the bricks lot 16 are resting		**I**	**2**	11, 15	13	15	12	13	
Sandy subsoil	**Pre-Contact**	**I**	**1**		16			17	

8.0 Area 3 Archaeological Chronology

Seven units were excavated in Area 3. These were located the south of the 2015 excavation units. The purpose of the excavation in this area was to further explore the suspected structure in this location based on evidence from the 2015 field school. At that time a fence line, post holes and building debris found in units S, T, U, V, W in 2015 (Figure 78) indicated that a structure was present. The new units laid out in 2017 were to the south of these features in an area where additional test pitting in 2017 resulted in several positive results. Figure 79 shows the area of high artifact concentration in Area 3 within which the units were strategically positioned. Specific counts and artifact categories are provided in Section 9.0.

Figure 77 Drone image from 40 metres showing Area 3.

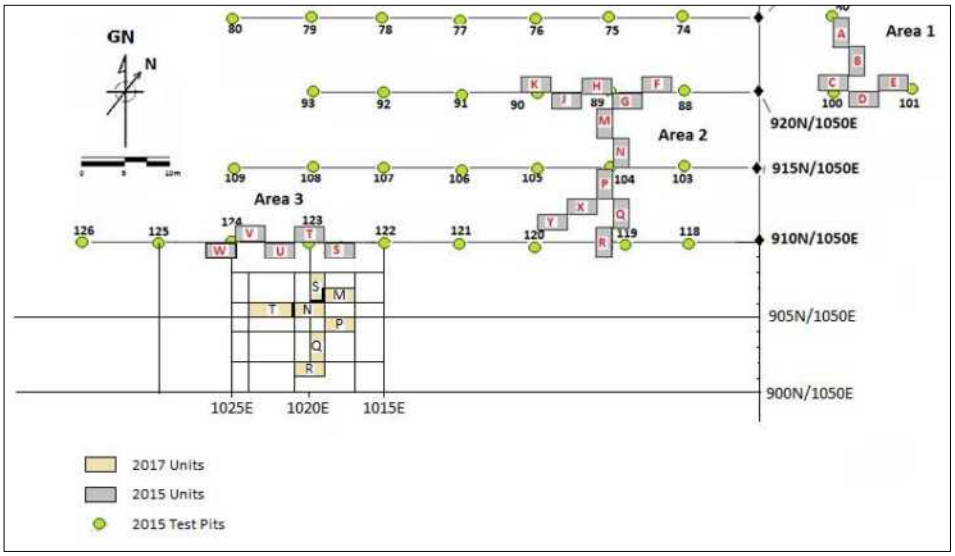


Figure 78 Area 3 site map showing all 2015 and 2017 units.

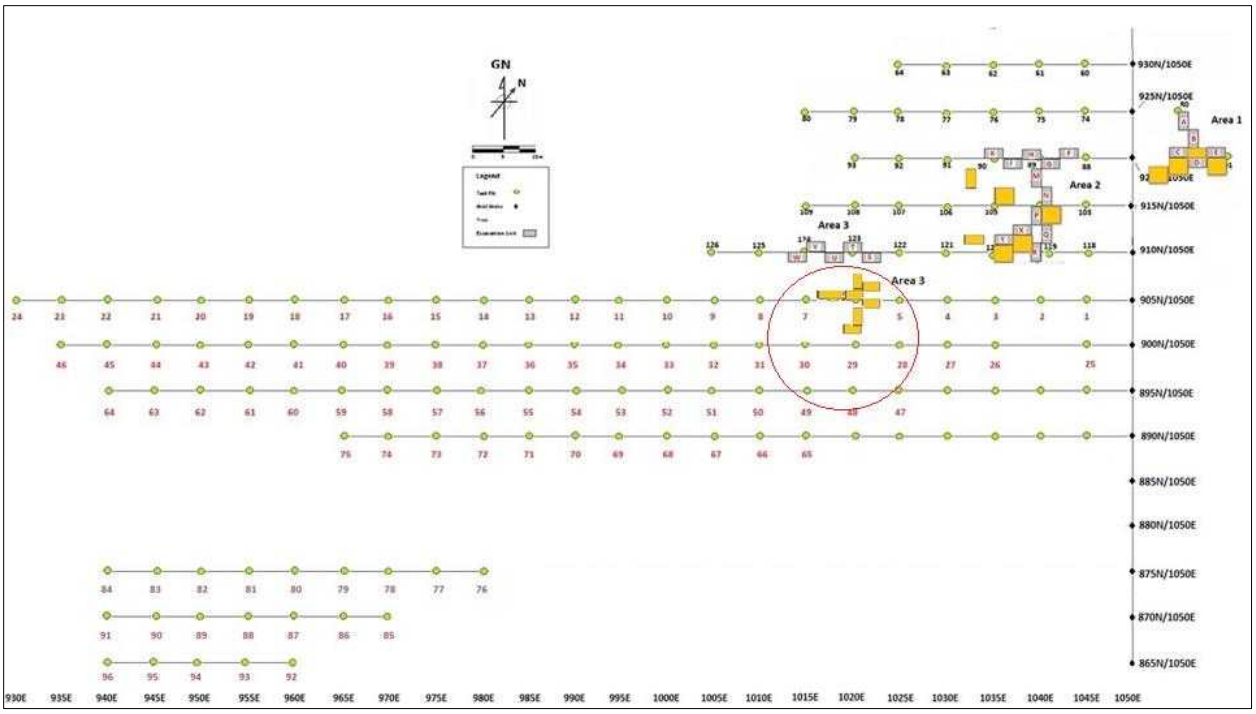
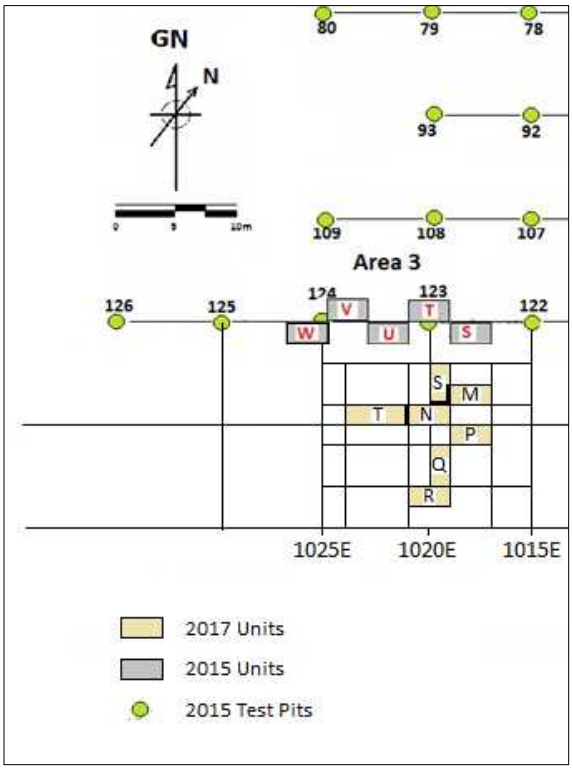


Figure 79 Test pits from 2017 Stage 2 assessment. Circle indicates high concentration of artifacts in Area 3.

Figure 80 Area 3 site map showing units laid out in area of high artifact concentrtions.



Survey coordinates for Area 3 units:

17M	NW 907N/1021E	17S	NW 908N/1020E
	NE 907N/1023E		NE 908N/1021E
	SE 906N/1023E		SE 906N/1021E
	SW 906N/1021E		SW 906N/1020E
17N	NW 906N/1019E	17T	NW 906N/1016E
	NE 906N/1021E		NE 906N/1019E
	SE 905N/1021E		SE 905N/1019E
	SW 905N/1019E		SW 905N/1016E
17P	NW 905N/1021E		
	NE 905N/1023E		
	SE 904N/1023E		
	SW 904N/1021E		
17Q	NW 904N/1020E		
	NE 904N/1021E		
	SE 902N/1021E		
	SW 902N/1020E		
17R	NW 902N/1019E		
	NE 902N/1021E		
	SE 901N/1021E		
	SW 901N/1019E		

Stratigraphic Matrix Area 3

Fort Erie 2017

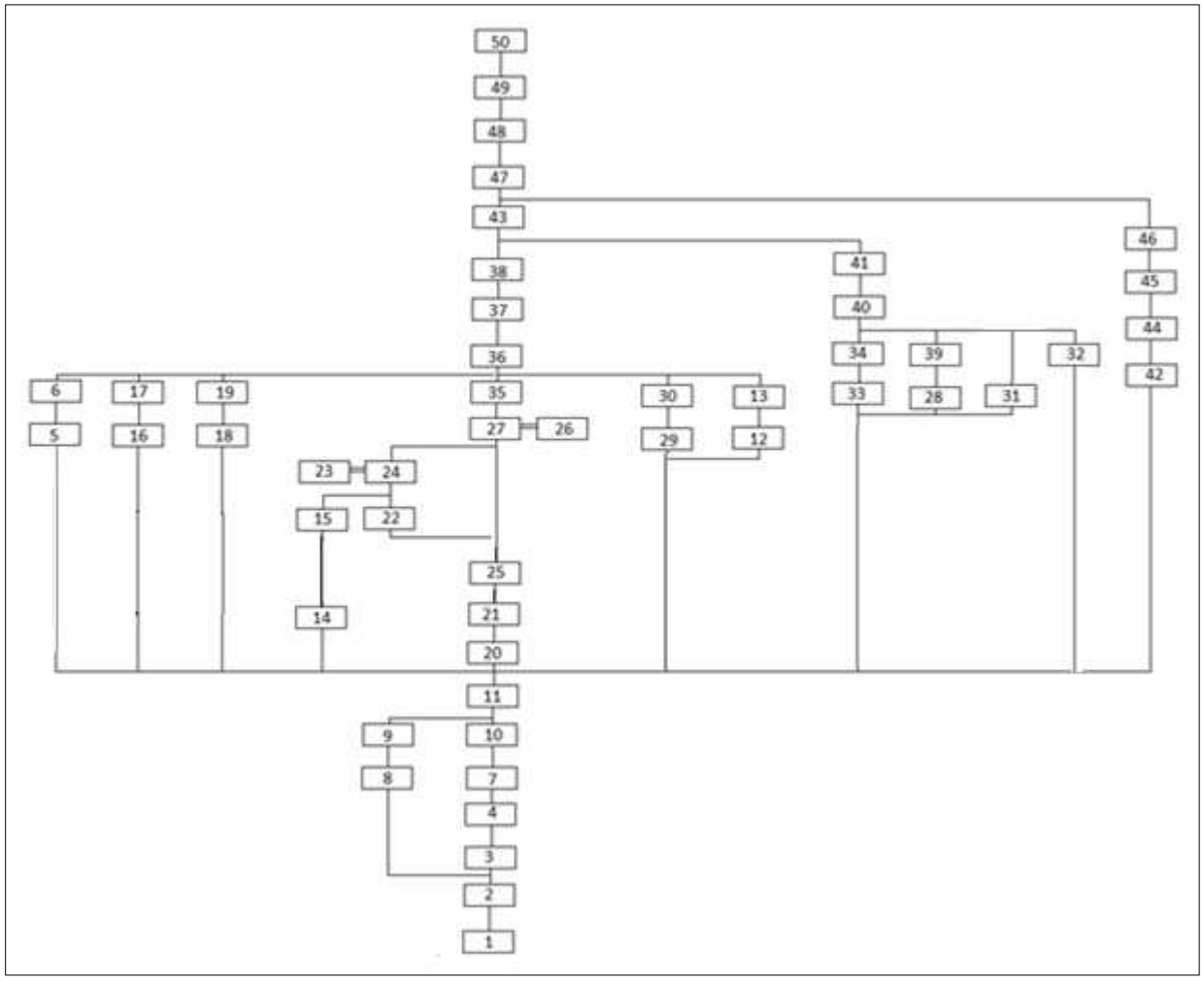


Figure 81 Harris Matrix showing all Phases defined for Area 3. This is based on superposition of all layers, features and interfaces defined during excavation.

Phase Matrix Area 3

Fort Erie 2017

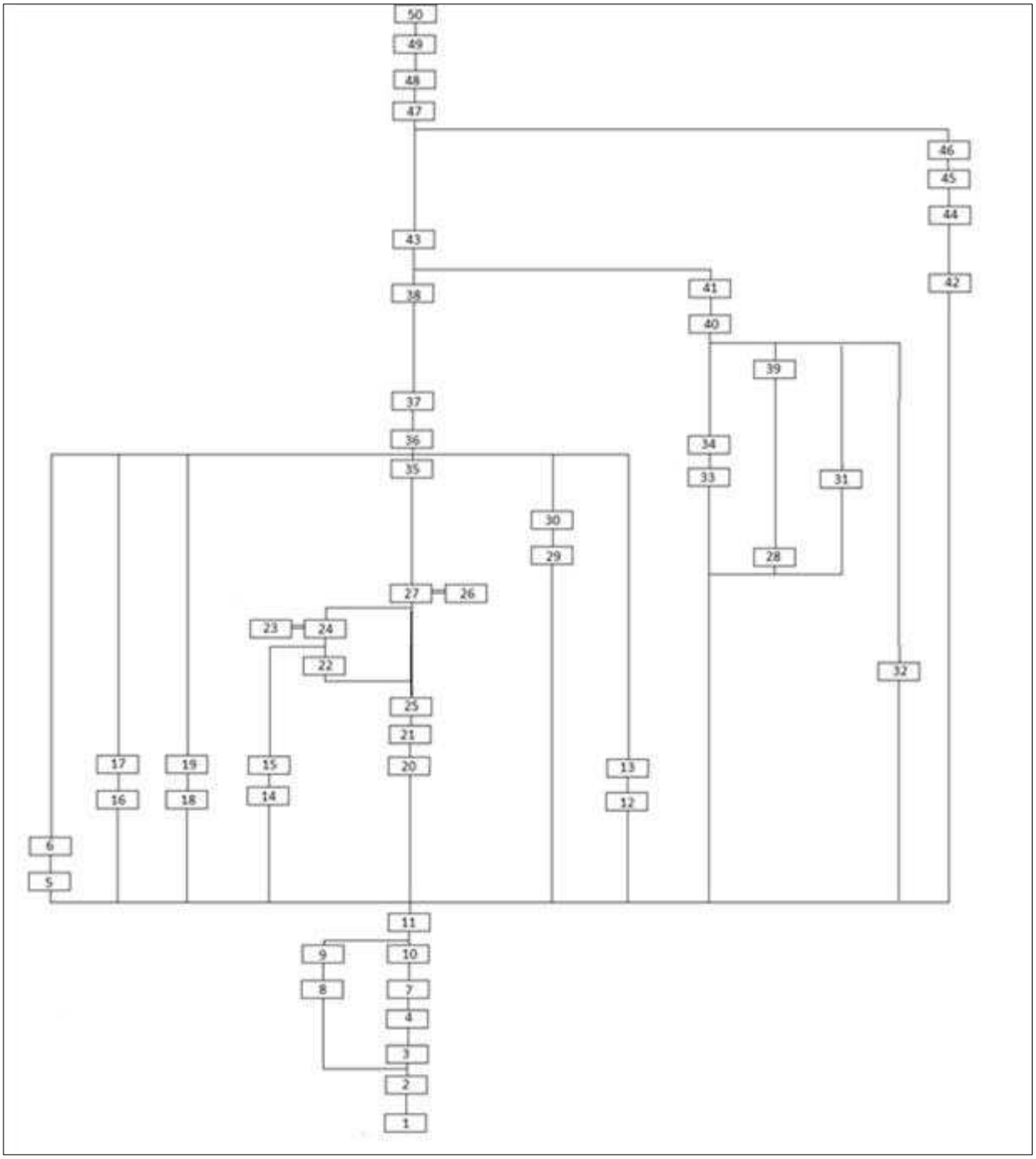


Figure 82 Harris Matrix showing all Phases defined for Area 3. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position by sliding the boxes on the vertical lines such that those on the same vertical position are assumed to be contemporary.

Phase Matrix Showing Periods

Area 3 Fort Erie 2017

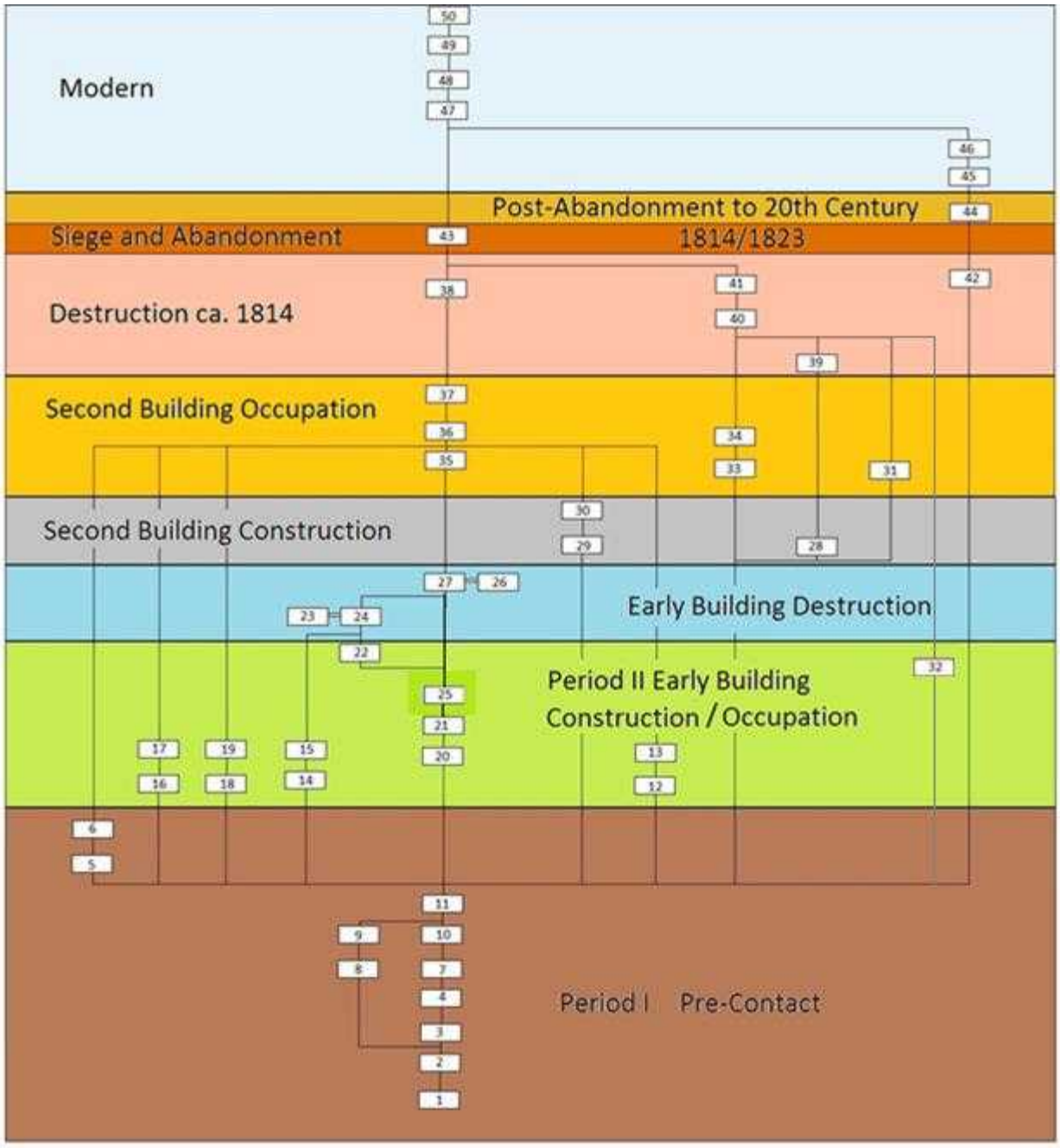


Figure 83 Harris Matrix showing all Periods defined for Area 3. This is based on superposition of all layers, features and interfaces defined during excavation. The Phases, represented by numbered boxes, are arranged in relative chronological position and grouped according to major episodes in the history of the site, some of which can be dated using historical documentation. See the correlation chart below for lots within each Phase.

Area 3 Stratigraphic History

Period I – Pre-Contact Phases [1] to [11] Phases [1] and [2] represent the natural sand subsoil with pebbles inclusions found in all units. The sand is medium to dark brown in colour and loosely compacted. In unit Q the sand showed some differentiation and was split into two layers. Also, the presence of chert debitage indicated cultural activity and it was thought prudent to excavate the layer in measured depths. In other units, excavation was terminated at the interface between the bottom of the A-horizon (Phase [11]) and the top of the sand subsoil. Based on the quantity of lithic debitage, several pieces of native ceramic and several features, it is almost certain that a multi-component pre-contact occupation is present in this area. Artifacts found in Phases [1] and [2] include more than 166 pieces of chert debitage in Unit Q and a single bone fragment. In other units, smaller numbers of lithic debitage were found. In unit T 15 sherds of native ceramic were recovered – 13 of which were marked with incised lines indicating a Late Woodland occupation. The

Figure 84 Unit Q showing close of unit and Lot 13 subsoil - Phase [1].

Figure 85 Unit Q showing pit - Phases [3/4] and pit/post – Phases [7/10].

Figure 86 Unit T showing pit/large post - Phases [8/9] intrusive into the A-horizon (Phase [11]. The feature was truncated by a wall trench discussed in Period II.

mixture of lithics in some units and the native ceramic in another suggests a multi-period occupation from the Archaic to Late Woodland Period. Several intrusive features – pits and possible post-holes - were also found in units N, P, Q and T. These were all designated with two lot numbers indicating the pit fill and the associated interface. A large pit in unit Q, Phase [3/4] contained 86 pieces of chert debitage and a couple of pieces of intrusive container glass. The pit was located in the south end of the unit and measured at least 75 cm x 100 cm and 20 cm deep. The pit was intrusive into lot 11 subsoil and appears to be a pre-contact feature. Another smaller pit in unit P (Phases [5/6] measured about 30 cm in diameter and about 10 cm in depth. The pit contained 36 pieces of chert debitage and 12 sherds of creamware which are presumed to be intrusive as there was difficulty identifying the upper boundary of the pit during excavation. In unit T a small pit, or large posthole, measuring about 30 cm diameter and 20 cm deep was found in the west end of the unit (Phases [8/9]). A small sherd of native ceramic and three pieces of lithic debitage were found in the pit matrix. Two small pits or postholes were found also in units N and Q, Phases [10] and [7]. In unit N the shallow pit/post-hole is less than 20 cm diameter and about 20 cm deep. This was documented in the profile after the unit had been completed. A similar-sized pit/posthole in unit Q had 7 pieces of lithic debitage in the soil matrix.

The dark brown buried A-horizon covered all previous layers and features noted above. Designated as Phase [11], the layer contained a wide array of artifacts from the contact and pre-contact periods. In all units the layer ranged in thickness from 10-30 cm. Excavation was terminated in some units at the interface between the bottom of the A-horizon and the top of the sand subsoil. Pre-contact artifacts consisted entirely of hundreds of pieces of lithic debitage, half of a polished stone celt, and a single sherd of native ceramic, undecorated (unit P). Post-contact artifacts included ceramic tableware (pearlware, creamware, yellowware, porcelain, Whieldon ware), a few shreds of coarse red

Figure 87 Unit N showing the surface of Phase [11], the buried A-horizon.

earthenware, about 30 wrought nails, a few pieces of window glass and a very small number of container glass shards. Faunal material was limited in quantity but included fish and mammal.

Period II – Early Building Construction and Occupation Phases [12] to [22] and [25], [32]

This period is defined based on several features which are related stratigraphically as the earliest structural features in the historic period of the site. Wall trenches, post holes and pits in units N, S and T

Figure 88 Early building features from 2015 and 2017 excavations.

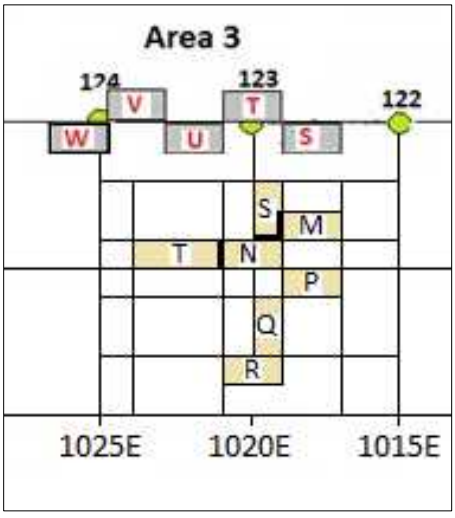


Figure 89 Area 3 site map showing 2015 and 2017 units referred to in discussion.

in 2017 are thought to be part of the same structure, traces of which were first identified in 2015 (Figure 88). The earliest features associated with the structure are in Phases [12] and [13], interface and post-fill, respectively. In unit S two posts were found along the west side of the unit (Figure 88). Each post is about 30 cm in diameter and 80-85 cm in depth. The significant depth indicates that these were structural supports, possibly for a timber sill laid along the top of the post supports. Another similar post was recorded in Unit T in 2015 about 3 metres to the north of unit S (2017). The posts are aligned in a

Figure 90 Post holes found in unit S (Phase [12/13]. View looking east.

Figure 91 Wall trench in unit T (Phase [14/15]. Brick-filled trench is visible on left in profile (Phase [20/21].

Figure 92 Continuation of wall trench from unit T (Phase [14/15]. Pit feature, Phase [16/17] visible on right.

grid north-south orientation and the suggestion is that these define the east wall of the structure. A slight slope down from the north wall in unit 2015 T to the south end in unit 2017 S would have necessitated raising the sills off the ground in the south. Artifacts found in the post hole fill include only 12 chert debitage flakes.

On the south side of the structure a wall trench was found in Units N and T, Phases [14] and [15]. Although this may represent a different structural technique for the same building, the trench is aligned in an east-west orientation at a 90-degree angle to the line of posts. A similar trench was found in the same east-west orientation in 2015 in unit V. The orientation and spacing suggests this is the north wall of the structure located about 16 feet or 5 metres north of the south wall. The trench in unit T (2017) measures at least 4 metres long from unit N in the east to the full extent of unit T in the west. The trench is intrusive into the subsoil for a depth of 30 cm and is at least 35 cm wide where it extends into the unit towards the south. A single sherd of 18th century white salt-glazed stoneware, a type associated with the first Fort Erie, 1764-1805, was found in the wall trench in unit N, along with a few chert debitage flakes and a single fish bone. In unit V (2015) the trench was identified during wall cleaning and during the final week of excavation and an artifact assemblage can not be reliably assigned to the feature.

A pit feature found in the east side of unit N may be related to the structure although it is located on the outside of the building, Phase [16/17]. This may have been a refuse pit based on the depth – about 35 cm – and the diverse assemblage of objects found in the pit fill: 1 shard of container glass, 1 nail, 1 piece of window glass, a straight pin, a piece of glass stemware, 2 bird bones, 1 piece of chert debitage and 2

brick fragments. The variety of objects does point to a domestic occupation – something which is in keeping with the relatively small size of the structure. Another smaller and shallower 'pit' was found on the outside corner of the structure, Phase [18/19]. The small depression measured less than 10 cm diameter and about 10 cm deep. Interestingly, a mortar bomb fragment was recovered from the soil matrix. It is more likely that this was a bomb fragment that became trampled into the buried A-horizon at a later date.

Phase [21/22] is a brick-filled trench that became apparent on the north wall of unit T at the close of excavation. The feature is composed of large brick fragments that appear within the wall trench, Phase [14/15]. The brick-filled trench is at least 50 cm wide and as much as 70 cm based on the presence of two almost complete bricks on the east side. It does not extend further south than the wall trench defined in Phase [14/15] but it does extend for an unknown distance north. It is possible that this is a later repair possibly as a support for floor sleepers that may have rotted. The destruction of the brick feature is indicated by the interface, Phase [25]. A very thin layer of soil – less than 5 cm – overlies this interface and contains a few nails and scrap sheet metal, Phase [22]. It is possible this is a stove platform such as seen in Area 2, Unit E. Further excavation is necessary to confirm this hypothesis.

A thin linear trench, possibly representing a fence-line, was found in Unit M running in a north-south orientation, Phase [32]. This feature was about 2-3 cm wide and intrusive into the underlying A-horizon for a depth of about 8 cm. The narrow 'trench' runs across most of the unit width except where it was interrupted by a shallow pit - Phase [31], Period IIIb (see below).

Figure 93 Linear trench – possible fence-line in unit M, Phase [32]

Period IIa – Early Building Destruction Phases [23] to [27] (excluding [25]) All Phases for this Period are found in unit T. Phases [23] and [24] are destruction deposits that cover the unit entirely. The phases were separated during excavation into two separate lots, 13a (east side) and 13b (west side). Upon completion the unit profiles showed minimal differentiation between the lots. The sandy loam layer ranged in thickness from 2-9 cm and contained fragments of mortar and brick throughout. About 30 wrought iron nails were found in the deposit but no window glass sherds. This suggests that the deposit is a sub-floor layer. The dark brown colour of the sediment and fragments of wood recovered also point to a wooden floor left *in situ* or incompletely removed before it was covered over with another destruction layer, Phase [26] and [27]. Artifacts recovered from the lower destruction deposit, Phases [23] and [24], also include an assortment of domestic items such as creamware and pearlware, a pharmaceutical bottle shard, bottle glass, smoking pipes, glass stemware, a lead fishing weight, a table knife and more than 60 small fragments of bone (fish, bird and mammal). Regimental buttons found include the 5th and 34th regiment - both officers' buttons. The 34th Regiment of Foot were at Fort Erie between 1783 and 1786. The 5th Regiment of Foot garrisoned Fort Erie between 1792 and 1796. Three unmarked, 2-piece buttons had traces of gilt indicating an officer. In addition to the historic period material three sherds of unmarked native ceramic and 34 pieces of lithic debitage were recovered. The pre-contact artifacts are likely from the surface of the underlying subsoil layer.

Figure 94 Unit T Surface of Phases [26] and [27] showing building rubble. Bricks are from the underlying destruction Phases [23] and [24].

Phases [26] and [27] represent the uppermost destruction layer in this period. As with Phases [23] and [24] these were also separated into east (lot 12, Phase [26]) and west sides (lot 11, Phase [27]) during excavation. Some differentiation was evident during excavation although the distinction did not show in the stratigraphic sections upon completion. Several near-complete bricks and a few pieces of limestone rubble were found on the surface of lot 11 in the west side of the unit, in proximity to the brick feature described in Period II, Phase [21/22]. The amount of brick clearly indicates that a larger feature was present such as a brick pier for floor support, or a platform for a stove. The thin layer ranged in thickness from 5–8 cm and covered the previous destruction layer entirely. About 1/3 of the assemblage of 200 artifacts from Phase [27] is window glass. The 69 pieces of glass, together with a dozen wrought nails, suggests destruction of the walls of the building and is different from the floor destruction deposit described in the earlier phases. Also found were a barrel hoop fragment, an unidentified perforated lead object, a few pieces of creamware, a bone button blank, and a few pieces of food bone but in lesser quantities than in the lower phases. Lithic debitage accounts for more than a third of the assemblage (n 86) and probably indicates a later disturbance, which resulted in the displacement of pre-contact material into this later context.

Period IIIa – Second Building Construction Phases [28] to [30] Evidence for a second building, built over the earlier building, is present in units N, N and P. This structure is at a different orientation to the earlier structure. Instead of being aligned with the excavation grid, this later building appears at a slight angle to the grid. Features include a foundation wall [Phase [28] and a pit [Phases [29/30]. The wall foundation is dry-laid stone, two courses high and sitting on subsoil. Traces of mortar were found on the top of the wall when first exposed, but none was evident between the courses. The wall measures about 50-60 cm wide (2 feet) and extends from about midway into Unit S in the north to just inside the north section of Unit P where it is visible in the profile. Although the top of the wall has been disturbed it appears to have had at least two courses. Wall stones are set into a shallow trench intrusive into the A-horizon. The wall is not continuous through units P and S and as such it may be a dividing wall inside the structure. As discussed below in Period IIIb, interior floor features were found on both sides of the feature. The end of the wall is visible in the north profile of Unit P.

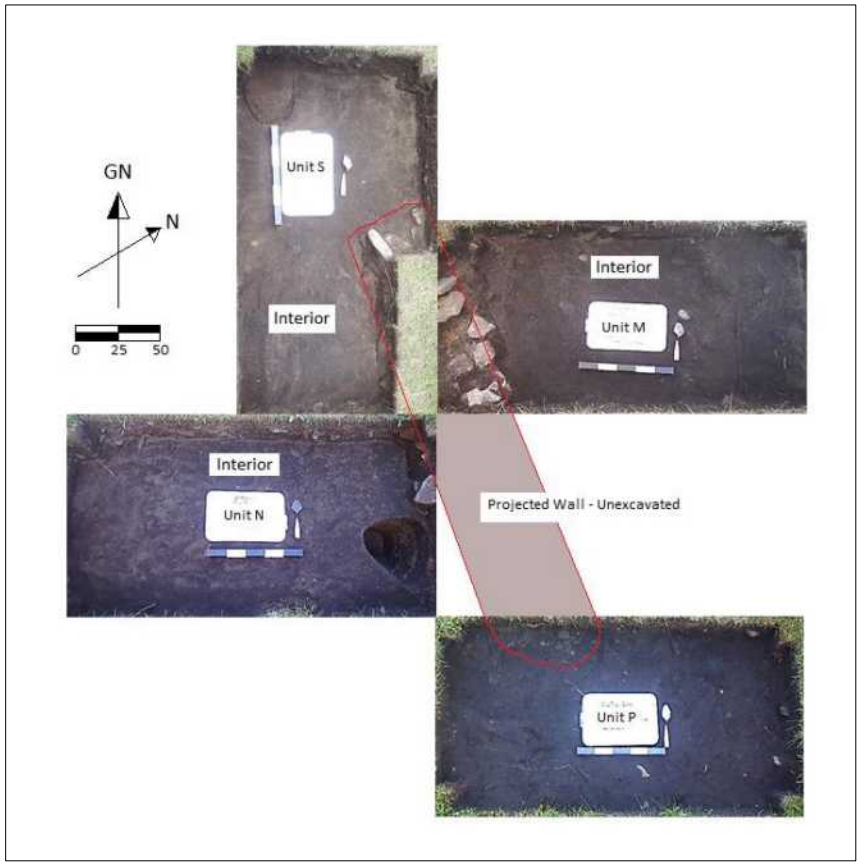


Figure 95 Area 3 units showing construction of wall, second building, Period IIIa.

Figure 96 Area 3 Unit M showing dry-laid foundation wall on west side of unit.

A large piece of limestone building stone was found in the east profile of unit N. This is likely a toppled stone from the upper course of the wall that has shifted slightly to the west.

Figure 97 Area 3 Unit M, west profile showing wall foundation stones *in situ* and second course stones disturbed and slightly out of place.

A small, shallow pit measuring about 35 cm largest dimension and 12 cm deep was found in the southeast corner of unit P. The pit is not structural, but it is intrusive into the A-horizon like the builder's trench for the wall in unit M, and has been assigned to this Period based on the stratigraphic position of the feature, Phase [28], and interface, Phase [29]. A small collection of artifacts found in the pit include 1 nail, 3 pieces of window glass, 3 mammal bone fragments, a single sherd of creamware and 14 pieces of lithic debitage.

Figure 98 Area 3 Unit N, east profile showing wall foundation stone, displaced from top course.

Figure 99 Area 3 Unit P, north profile showing rubble (left) associated with south end of wall foundation.

Period IIIb – Second Building Occupation Phases [31] to [37] Six phases attributed to the occupation of the second dwelling are described below. Phases [31] and [33], in unit M, are both features with evidence of burning. Phase [31] overlies the original A-horizon in the western half of the

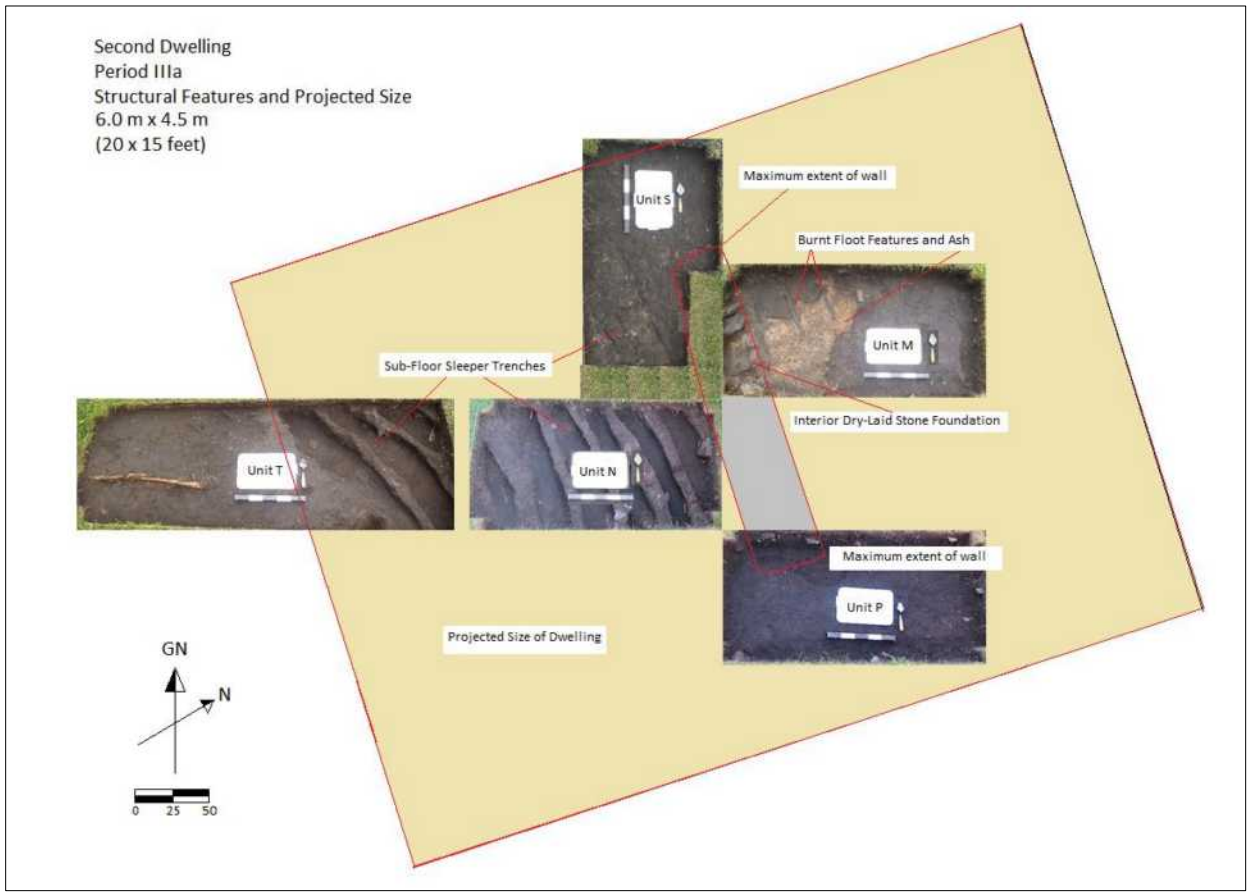


Figure 100 Area 3 units showing structural features in second building, Period IIIb.

unit adjacent to the wall foundation described in the previous period. Two dark stains (Phase [34]) intersecting the burn layer and running parallel to the wall foundation provide strong evidence that the features together represent an *in situ* floor burning episode. The orange colour of the sand in Phase [33] is due to oxidation caused by the fire. Artifacts found in the burn layer include 4 nails, all burnt and corroded, 3 ceramic sherds, also burnt (pearlware, canaryware and porcelain), one bottle shard, a copper pendant, presumably native-use, and 7 pieces of chert debitage. The parallel lines, Phase [34], are spaced about 20 cm apart (8 inches) and very likely represent the spaces between the floorboards. Phase [31] is a shallow pit about 30 cm diameter and 6-8 cm in depth. All artifacts found

Figure 101 Area 3 Unit M showing the burnt floorboards adjacent to the foundation wall and spacing between.

in the pit are burnt indicating *in situ* burning. Artifacts include about 15 nails, 2 pieces of window glass, a bone button, 2 pieces of mammal bone and a sherd of Royal pattern creamware.

Figure 102 Area 3, Unit T, lot 10, 60th Regiment of Foot pewter uniform button.

Figure 103 Area 3, Unit N, showing the sleeper trench interfaces intrusive into the sub-floor deposit – the ridges separating the troughs. The close spacing of the sleepers suggests that replacement was necessary at least once during the occupation of the dwelling.

Phase [35] is a layer in unit T that covers previous deposits associated with the earlier Period II dwelling. In fact, artifacts found in the deposit more properly belong to the occupation and destruction of the earlier building from Period II. The deposit ranges from 5-under 10 cm in thickness and occurs on the exterior of this later structure. Artifacts are numerous and include 29 nails, 50 pieces of pane glass, a straight pin, lead fishing weight, a hook and eye fastener, 36 pieces of bone (bird, mammal and fish), a lamp chimney fragment, 5 smoking pipe fragments and 14 pieces of lithic debitage. Also found was a pewter 60th Regiment of Foot button, also known as the Royal Americans – a colonial infantry regiment raised in 1757. There is no record of a detachment of this regiment at Fort Erie specifically, however there were detachments in the Niagara frontier between 1759-1763, 1768-1771, and 1787-1795. The 60th were involved in 'Pontiac's Uprising' in 1763 and were at Fort Michilimackinac when it was captured by Ojibwa warriors. The detachment who re-garrisoned Fort Michilimackinac in 1764 would have passed Fort Erie and may have stayed for a short period of time before heading to the northwest aboard the schooner Gladwin (Wallace 1879). The 60th button could be one of the oldest regimental buttons found on the site.

Phase [36] is contemporary with the previous phase but found on the interior of the structure. In units N, P, S and T, sub-floor sleeper trenches (Phase [37]) are cut down into this layer for the placement of the timber supports. The deposit is about 5-10 cm thick, the surface of which is at the same elevation as the exterior deposits in Phase [35]. The interfaces for the sleepers (Phase [37]) were very well defined in units N and T, as the images below demonstrate. In unit P the sleeper trenches did not extend into far into the unit

Figure 104 Area 3, Unit T, showing sleeper trenches excavated into the subfloor deposit on the interior of the building. The absence of trenches on the left – west- indicates that this is the exterior of the dwelling.

Figure 105 Area 3, Unit S, showing the sleeper trench interface intrusive into the sub-floor deposit – the ridges separating the individual sleeper trench troughs were not evident in this area as they were in unit N suggesting greater disturbance due to floorboard replacement. The partial wall foundation is visible at the top in unit M. View looking east.

and are visible in the north profile. In unit S, the fill in the two individual sleeper trenches was apparent on the surface prior to excavation. During excavation the separate trenches were unable to be defined and a single, large trench became evident. The suggestion is that floor maintenance resulted in a general mixing of the subfloor layer. The trenches are shown in each stratigraphic section drawing for that unit. On the west side of the masonry wall foundation the floorboards would have been laid perpendicular to the wall in a northeast-southwest orientation across the sub-floor sleepers which were oriented at 90 degrees to these (a northwest-southeast orientation). On the east side, the actual boards burned *in situ* in unit M run parallel to the wall, instead of perpendicular. Sleeper trenches were not evident on this side of the wall. Instead the floorboards were laid directly on the sandy subsoil.

The closer-than-necessary spacing of the sleeper trenches in unit N suggest that the floorboards were lifted at least once and rotten sleepers replaced.

Artifacts found in the Phase [36] layer are more properly associated with the demolition of the earlier building than the occupation of this second dwelling. Three hundred and thirty artifacts were recovered from lots in the four units assigned to this Period. Nails and window glass are abundant indicating the demolition of the earlier structure. Tableware ceramics are also present in relatively high numbers. Several types were found and all date to the late 18th (and early 19th) century: creamware and pearlware with various decorations, black basalt, and porcelain. Utilitarian redwares, glazed and unglazed, were also recovered. Other domestic types of artifacts include a knife blade, barrel hoop, bottle glass, three gunflints, several smoking pipe fragments, a clock key, a pendant, and food bone. These are items that could have fallen below the raised floorboards, and others that may have been deposited intentionally as refuse if the floorboards had ever been raised and replaced. Some of the artifacts may indeed be attributable to the earlier structure if they had become incorporated into the fill layer during demolition.

Period IV – Second Building (Officers' Quarters) Destruction ca. 1804/1805 Phases [38] to [42]

Sometime after the spring of 1805, the old Fort Erie by the lake was razed and the new Fort Erie was constructed on the rise overlooking the lakeshore. Buildings associated with the old fort, such as those shown on various 18th century maps and watercolours were probably razed at this time as well to provide a clear line of sight from the ramparts of the new fort to the lake. The latest depictions of buildings on the north side of the road bordering the old fort – today Lakeshore Road – is from Edward Walsh's watercolour of 1804 (Figure 106) and the view of the Town of Fort Erie drawn by Sempronius Stretton in March 1805 (Figures 108, 109). The artifacts discussed below support a demolition date at this time. In fact, it is quite likely that materials such as brick, stone and even wooden sleepers and floorboards were re-purposed for the new fort. Many of the artifacts from this Period have evidence of burning suggesting the building was razed and the unused elements were burned *in situ*. The specific building excavated in Area 3 may be the one indicated on Edward Walsh's watercolour of 1804. The building does not appear to be present in Sempronius Stretton's picture of March 1805.

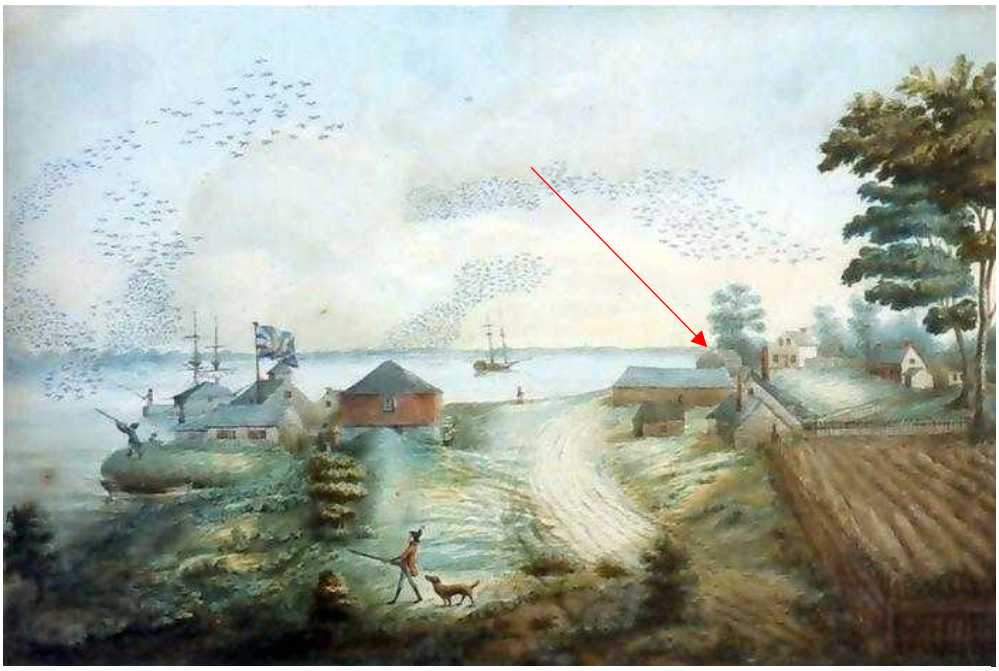


Figure 106 Old Fort Erie and the Migrations of the Wild Pigeon in the Spring, Edward Walsh, 1804. Royal Ontario Museum. Area indicates the Area 3 structure in Periods III/IV.

Figure 107 Detail of above showing resumed Officers' quarters excavated in Area 3.

Figure 108 View of Fort Erie & the Town at the mouth of Lake Erie, Upper Canada, March 28, 1805. Sempronius Stretton. (ROM Cat no. 1593 acc. no. 951 117 1)

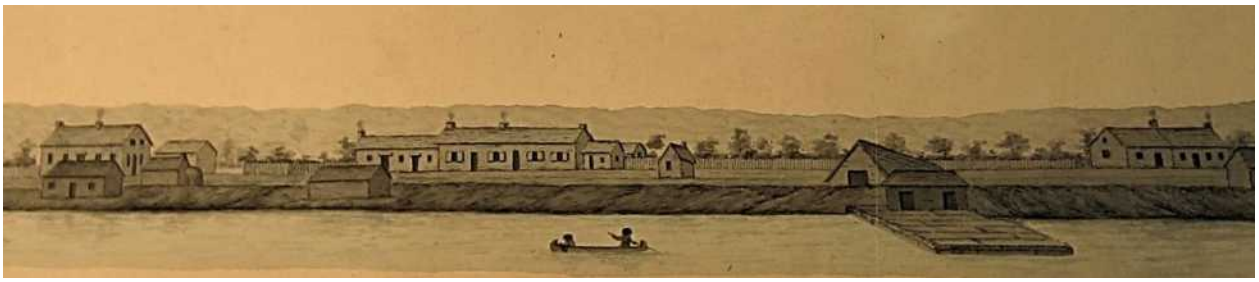


Figure 109 Detail of above. The building shown on the Edward Walsh map does not appear to be present in this view.

Figure 110 Rubble removed from the fill within the sleeper trenches.

Five phases are related to the destruction of the second dwelling. The first of these is the infill within the sleeper trenches in units N, P, S and T, Phase [38]. The fill would have been deposited after the sleepers were lifted and possibly re-used. No evidence of rotted wood was found in the trenches, although a significant amount of rubble was removed from the troughs. Artifacts from Phase [38] were found predominantly in Unit N, which is assumed to be the main living space in the centre of the structure. Of the 317 artifacts found almost half are wrought nails (n 52) and window glass (n 106). Tableware ceramics are the next most numerous artifact type (n 44) and include various decorative types on creamware and pearlware. Other food-related items include a few shards of free-blown bottle glass, a two-pronged fork, a piece of stemware and a barrel hoop. An iron four-holed button and a shako hat plate with gilt indicating an officer were also found. Food bone (mammal, bird and fish) was found in small quantities. Finally, 11 fragments of smoking pipes were found which is a relatively high proportion compared to other contexts. Together the assemblage supports the interpretation of this being an officers' quarters, as was the earlier structure from Period II. Items such as the gilt shako plate (unidentifiable as to regiment), ceramic tableware, glass stemware, and the eating utensil provide strong evidence of the presence of an officer. The lack of items that could be attributed to a female, items such as small buttons, small sewing scissors, and jewelry, suggest that it was quarters for unmarried officers.

This layer extends beyond the area of the structure proper, to the south in units Q and R. In unit M, lots 4 and 5 cover the surface of the wall foundation (Phase [39]), with only a single stone projecting above the contemporary ground surface. The thickness of the layer in this unit and elsewhere ranges from 2-10 cm. Of the 82 artifacts found in Phase [40] (Unit M only) 22 of these are nails with 10 pieces of

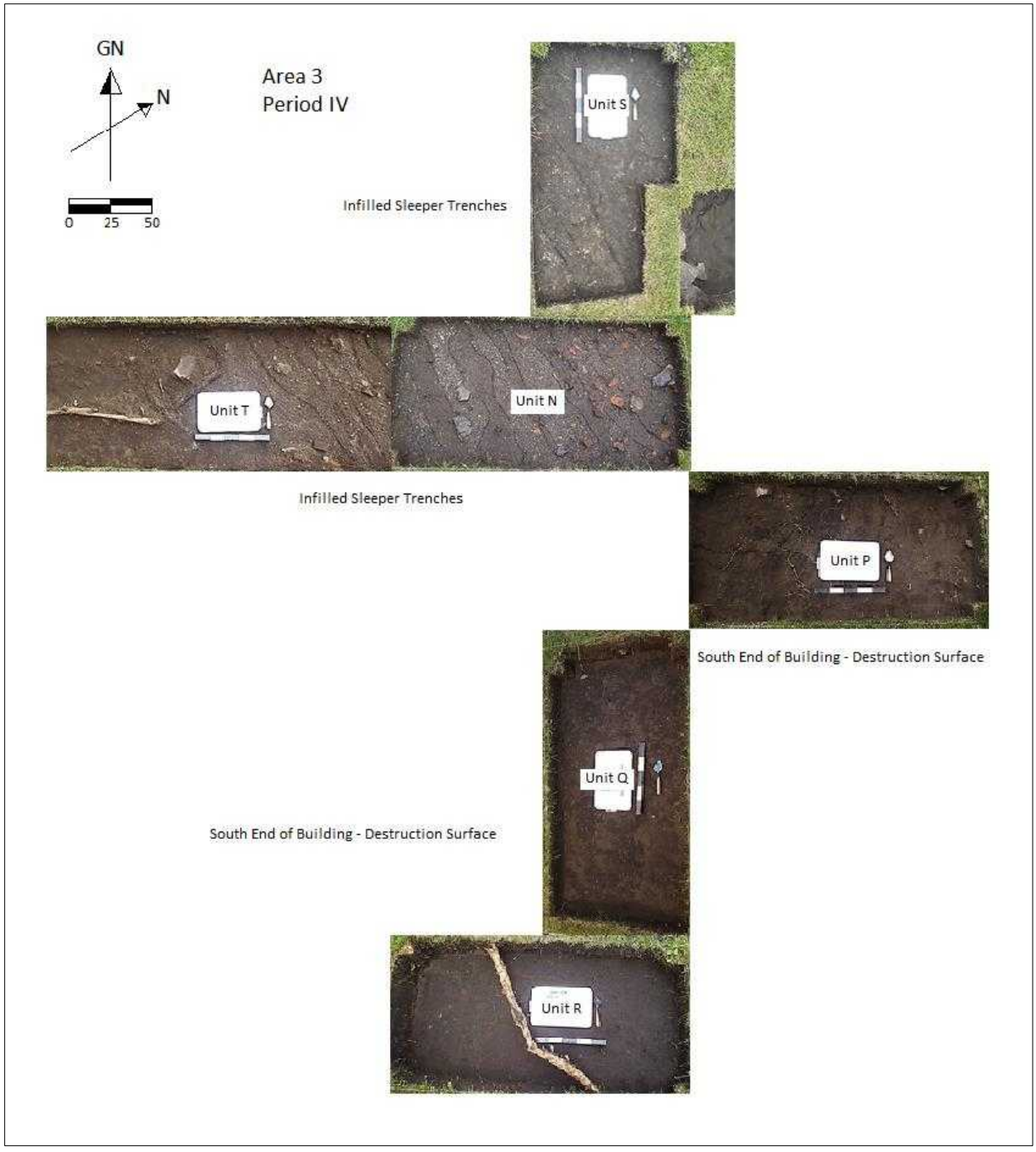


Figure 111 Area 3 Period IV showing destruction layer in all units.

window glass. Ceramic tableware is also quite numerous (n 14) and includes types such as creamware, pearlware and porcelain, along with other 18th century types such as Jackfield and barley pattern white

salt-glazed stoneware. A sherd of utilitarian grey-bodied salt-glazed stoneware was also found. A few pieces of bird, mammal and fish bone and two shards from a mould-blown wine bottle round out the Food Preparation group. Two pieces of smoking pipe were also found as was a bone button back for a two-piece button. The assemblage represents the same type of domestic occupation items as were found in Phase [38].

In Phase [41] the assemblage of 490 artifacts from units N and M include 85 nails and 155 pieces of window glass. Ceramics total 60 sherds and include creamware and pearlware with various types of decoration, porcelain, and lusterware. Several bottle glass shards and 73 fragments of food bone (bird, mammal and fish) were also found. Smoking pipes are few in number (n 6). Small items of interest include a buckle, 2 pieces from a lice comb, and a piece of trade silver, the latter indicating a native presence. A fragment of a mortar bomb was also found in unit N.

Phase [42] includes artifacts that are related to the occupation of the building, but which have been displaced a few metres to the south. The assemblage is relatively large (n 606) with almost 400 items found in unit Q. Clearly the dispersal of artifacts was greatest near the structure, falling off with increasing distance. More than half of the material is lithic debitage, which was found in limited quantities in contexts within the dwelling. The greater quantity of this in units Q and R to the south of the structure may reflect the mixing of pre-contact items with the historic material during excavation. The layer in both units directly overlies the original A-horizon, where earlier evidence indicated clear evidence of a pre-contact period occupation. Historic period artifacts in this phase mostly architectural items, nails (n 43) and window glass (n 96), similar to other Phases in this Period. Tableware ceramics are also quite numerous and include almost 50 sherds of creamware and pearlware with various types of decoration and Jackfield. A few shards of wine bottle glass, 10 pieces of smoking pipes and 43 pieces of mammal bone were also recovered. In sum the assemblage is very similar to the other units within the footprint of the building.

Period V – Siege and Abandonment - 1814/1823 Phase [43]

In the area of the building, in units M, N, S, and T, a layer of sandy loam with brick, charcoal, mortar and small pieces of limestone rubble covered all previous layers and features from Period IV. The deposit ranged in thickness from 2-15 cm and created a mostly level surface in the area of the former building. The artifact assemblage (n 384) from this phase includes a diverse assortment of items. Excepting a single pipestem fragment found in unit T, these are found in units M and N, the

Figure 112 Period V ground surface in Area 3, unit S.

Figure 113 Pewter Royal Canadian Volunteer button from collection at Niagara Falls Museum. Identical to the button found in unit M, lot 3. http://niagarafallsmuseums.ca/about-us/gallery/Collections.pg

majority in the latter unit. Architectural items, nails (n 91) and window glass (n 132) are the largest category. Tableware ceramics (n 51) are the next most numerous class almost all of which is creamware and pearlware. Also found were a fishing hook, food bone, container glass shards, a musket ball, a drawer pull, smoking pipe fragments with one marked Bannerman/Montreal (1858-1907), a lice comb, a shoe buckle, lamp chimney fragments and two uniform buttons. A pewter Royal Canadian Volunteers button (1796-1802) was found in unit M and a gilt officer's button – unmarked with horizontal lines in a raised perimeter border - in unit N. Based on the distribution of the artifacts, they were clearly deposited in the approximate centre of the razed building. Although the remains of the building itself would not have been visible save for the odd stone projecting above the surface, it may be that this was a refuse disposal location perhaps among a stand of weeds or bare ground that overlay the demolition debris from the earlier period. The co-occurrence of dated artifacts such as the Bannerman pipestem and the Royal Canadian button indicates that this may have been the case for a considerably long period of time. The layer in this Period likely served as the ground surface for a considerably long period, from the War of 1812 to the restoration in the 1930s.

Period VI – Post-abandonment to 20th Century Phase [44]

This is a layer covering the three units south of the demolished building – P, Q and R. It would have been the ground surface contemporary with the Period V layer covering the building itself. The sandy loam deposit ranges in thickness from 2-8 cm and had flecks of charcoal and brick flecks within the sediment matrix along with a few small pieces of limestone rubble (10 cm greatest dimension) on the surface. The layer probably served as the ground surface for more than a century from the 1820s to the restoration period in the 1930s. A total of 467 artifacts were found in the layer. These fall off in frequency from unit P in the north (n 184), unit Q (n 150) midway, to unit R in the south (n 133). Architectural items are the most numerous types found, nails (n 78) and window glass (n 158). Tableware ceramics (n 64) include the usual pearlware and creamware varieties with a few sherds of porcelain. A few sherds of utilitarian redware were also found. Faunal bone (n 49) consisted of bird, fish and mammal. A few smoking pipe fragments were also found (n 13), together with a few pieces of bottle glass and a barrel hoop. The ubiquitous chert debitage was also present in small numbers.

Figure 114 Period VI ground surface in Area 3, unit R.

Period VII – Modern Phases [45] to [50]

Six events represent the modern period, defined as after the 1930s restoration to the present. Two shallow firepits were excavated into the old ground surface in units P and Q, Phases [45] and [46], interface and fill. These are about 30 cm in diameter and less than 5 cm in depth. Sediment in the pits is burned sand with charcoal and ash flecks indicating *in situ* burning. The same features found elsewhere on the overall site (Areas 1 and 2) and have been identified as re-enactor firepits. The pits were probably dug into the modern ground surface, Phases [47] and [48], topsoil and sod and re-sodded after the re-enactor event was finished. Although not found in this particular Phase, modern gunflints have been recovered from the same features elsewhere. The sod/topsoil layer is about 10 cm thick in every unit in Area 3. The last two Phases in the Area 3 stratigraphy designate the test pit excavated prior to opening the excavation units. TP6 (905N/ 1020E) is found in Unit N, south wall. Artifacts found in the sod and topsoil, Phases [47] and [48] include a mixture of modern and older material dating back to the 18th century. It is probable that the layer is displaced topsoil associated with the 1930s restoration activities when the landscape around the fort was re-graded to its modern appearance. The assemblage is quite large (n 1455). Excluding about 200 pieces of charcoal and brick, the largest Group is architectural with nails (n 178) and window glass predominating (n 429). Ceramic tableware is the next largest class with 194 sherds of various types spanning more than two centuries. Creamware is the most common type followed by pearlware and a few sherds of whiteware. The presence of 18th century types such as white salt-glazed stoneware, tin-glazed and porcelain provide evidence in support of the displaced soil hypothesis. Utilitarian wares were also found in smaller numbers. Other interesting items include a fishhook, iron box lock and key, a musket ball, sewing scissors, barrel hoop, a free-blown pharmaceutical bottle, 30 smoking pipe fragments, a clay marble, a copper pendant attributed to an historic native occupation, and lithic debitage. Modern items include tin foil, cigarette butts, a paper clip and screw. The fact that the material is not in its original context does not diminish the importance of the finds. In its totality the assemblage represents every period of occupation from the pre-contact period to the post-war of 1812 period and is as such a valuable heritage resource to be safeguarded against any future disturbance.

Figure 115 South profile of Unit N showing backfilled test pit, TP6, at grid point 905N/1020E.

AREA 3 CORRELATION CHART										
Description	**Period Description**	**Period**	**Phase**	**17M**	**17N**	**17P**	**17Q**	**17R**	**17S**	**17T**
2017 Test pit		**VII**	**50**		14					
TP interface		**VII**	**49**		14a					
Sod		**VII**	**48**	1	1	1	1	1	1	1
Topsoil		**VII**	**47**	2	2	2	2	2	2	2
Re-enactor firepit		**VII**	**46**			3a	3			
Interface	**Modern**	**VII**	**45**				4			
Uppermost destruction layer with some brick, mortar, nails, lots of window glass, ceramics, smoking pipe, chert debitage and possible net sinker - displaced subsoil likely in Unit Q	**Post-abandonment to 20th Century**	**VI**	**44**			3	5	3		
Upper Destruction layer - lots of rubble, brick, mortar - artifacts include ceramics, buttons, container glass, high numbers of window glass and nails, wide variety of artifacts including shoe buckle and an officer s button	**Siege and Abandonment 1814/1823**	**V**	**43**	3	3				3	3
Unit Q - destruction layer but no rubble - artifacts include ceramics, nails, lots of window glass, smoking pipes, etc. and chert with fire-cracked rock - displaced subsoil		**IV**	**42**				6	4		
Another destruction layer with brick and building stone - larger pieces - and charcoal - lots of evidence of burning - artifacts are diverse and numerous and also a lot of nails and window glass		**IV**	**41**	4	4					

sandy destruction layer- charcoal and discoloured soil		**IV**	**40**	5						
Unit M definite wall HFI - possible HFI for wall fragment or possible wall collapse in Unit N		**IV**	**39**	8a	15a					
Fill in sleeper trenches parallel - several - all with mortar inclusions - artifacts in M include ceramics, bone, container glass, smoking pipes, pane glass, utensils, nails, brick, chert - charcoal in Unit P indicates burning as in Unit M - Unit S has musket ball and bird shot with other items as listed above	**Destruction ca. 1814**	**IV**	**38**		5	4			4, 7a, 7b	4, 6
Interfaces for sleeper trenches		**IIIb**	**37**		5a	4a			5, 7b, 8b	5, 7
Sub-floor deposit - soil between sleepers - artifacts in M include ceramics, container glass, pendant, few nails, chert debitage, lots of small bones, smoking pipes, more than 30 pieces pane glass, strike-a-lite on modified musket flint - clock key found in Unit P as well as similar items to Unit M - Unit S has evidence of burning		**IIIb**	**36**		6	5			6	8
Exterior surface to building with destruction debris - brick, mortar - nails, window glass, ceramics, smoking pipes, food bone		**IIIb**	**35**							9, 10
Lines in between floorboards on top of burnt sand - in situ floorboard burning - oriented NW to SE		**IIIb**	**34**	6a, 6b						

Correlates with layer in Unit E- this is very likely an in situ layer below a burnt floor - more than 15 burnt nails found - Unit S has evidence of burning		**IIIb**	**33**	7					6	
Burnt layer in Unit E - in situ floorboards burnt - all artifacts are burnt according to notes - some rubble in Unit N if same layer with lots of nails	**Second Building Occupation**	**IIIb**	**31**	11						
Pit in Unit P - 1 bucket volume with brick, few window glass, 1 nail, bone and chert - rubble or brick shown on profile		**IIIa**	**30**			9				
Interface for pit		**IIIa**	**29**			10				
Interior wall - limestone and large cobbles - dry-laid - no mortar - floor features occur on both sides of wall in Units M and N - in Unit N may be wall collapse not wall proper	**Second Building Construction**	**IIIa**	**28**	8	15					
Destruction layer - sandy loam with brick, mortar, window glass, nails, ceramics, food bone, smoking pipes		**IIa**	**27**							11
Destruction layer - sandy loam with brick, mortar, window glass, nails, ceramics, food bone, chert and projectile point		**IIa**	**26**							12
Floor layer - east side of Unit - may correlate with 13b - nails, food bone, window glass and chert, pre-contact ceramic		**IIa**	**24**							13a
Floor layer - west side of Unit - may correlate with 13a - nails, food bone, window glass, smoking pipe, container glass, and chert, pre-contact ceramic	**Early Building Destruction?**	**IIa**	**23**							13b

2-3 cm wide intrusion into A-horizon for depth of 7 cm – possible fence-line – oriented north-south		**II**	**32**	10						
Wall trench fill overlying HFI for brick wall feature - chert, nails, food bone, scrap metal		**II**	**22**							17
HFI for Brick feature - possible wall in trench in Unit T - same orientation as grid		**II**	**25**							23
Brick feature - possible wall in trench in Unit T - same orientation as grid		**II**	**21**							22
Interface for wall trench for brick feature		**II**	**20**							18
Small shallow pit in Unit M - with mortar bomb fragment, bone fragment, smoking pipe, brick - mortar bomb interesting - pre-War of 1812		**II**	**19**		10					
Interface for pit		**II**	**18**		11					
Pit in Unit N with few artifacts including bone, nail, container glass, white glass, brick, chert flake, straight pin, creamware		**II**	**17**		8					
Interface for pit		**II**	**16**		9					
Wall trench -seen in plan and profile after Unit excavated - white salt-glazed stoneware fragment found - brick inclusions in soil		**II**	**15**		12					14
Wall trench interface		**II**	**14**		13					15
Unit S - 60 cm deep - minimum 35 cm diameter posts in alignment with grid - different from later building which is at an angle		**II**	**13**						10, 12	
Interfaces for above	**Early Building Construction/Occupation**	**II**	**12**						11, 13	

A-horizon lots of chert, small bones, 1 nail in Unit M and P - few historic ceramics, native ceramic sherd in Unit P - Unit Q has only pre-contact artifacts - chert and fire-cracked rock		**I**	**11**	9	7	7	7	5	9	16
Unit Q posthole with chert and piece of charred wood - in Unit N a small pit drawn as if in the A-horizon - precontact		**I**	**10**		8a		8			
Pit/post hole - about 30 cm diameter - 25 cm deep - chert and pre-contact ceramic		**I**	**9**							19
Interface		**I**	**8**							20
Interfaces for above		**I**	**7**		9a		9			
Pit and interface		**I**	**6**			6				
Interface for pit		**I**	**5**			8				
Large pit in southern section of Unit - deep - possible storage pit with chert flakes only		**I**	**4**				10			
Interface for pit		**I**	**3**				12			
Sandy subsoil - chert only in Unit P - Unit Q has projectile points, chert, charcoal, 1 bone and 1 piece of glass - intrusive - Unit R has mostly chert with 2 window glass and 1 brick		**I**	**2**			11	11	6		21
Subsoil - lowest layer of sand with pebbles, chert debitage and possible cores found in Unit Q	**Pre-Contact**	**I**	**1**	12			13			

9.0 Artifact Analysis

Distribution by AREA		
Area	**Freq.**	**Percent**
1	7712	24.8
2	16618	53.3
3	6825	21.9
Grand Total	**31155**	**100.0**

The Distribution by Area indicates a disproportionate number of artifacts with more than half of the total assemblage for 2017 occurring in Area 2. Areas 1 and 3 have roughly equal numbers and make up the other half of the assemblage.

Distribution by AREA AND UNIT		
Area 1		
Unit	**Subtotal**	**Percent**
17A	266	3.4
17B	1099	14.3
17C	5153	66.8
17D	1194	15.5
Total	7712	100.0

An examination of the distribution of artifacts within each Unit in each Area highlights the disparities. These differences are attributable to the location within and around the buildings in each area, some being interior unit and others exterior.

In Area 1, all units are situated on the interior of the two structures found there. The highest number of artifacts is found in unit C, situated on the corner of the building where the presumed entrance was located.

Distribution by AREA AND UNIT		
Area 2		
Unit	**Subtotal**	**Percent**
17E	866	5.2
17F	6930	41.7
17G	3516	21.2
17H	754	4.5
17J	1881	11.3
17K	2671	16.1
Total	16618	100.0

In Area 2 most of the objects were found in unit F in a midden context. Unit G, situated on the interior of the structure(s), presumably near the east foundation wall, and adjacent to a cellar, is a very rich area. Units J and K, located near the fireplace, together comprise 27.4 of the assemblage. Units E and H are situated on the west side of the structure(s) and together make up less than 10 of the assemblage.

Distribution by AREA AND UNIT		
Area 3		
Unit	**Subtotal**	**Percent**
17M	1038	15.2
17N	972	14.2
17P	759	11.1
17Q	1849	27.1
17R	696	10.2
17S	721	10.6
17T	790	11.6
Total	6825	100.0

Artifacts in this Area are concentrated in unit Q. These are precontact period artifacts, mostly lithics, and do not relate to the two historic period structures. Units N, M, P, S and T are units found on the interior of the structures and together comprise almost 2/3 of the assemblage. Unit R is located to the south of the structures and the significant number of artifacts is attributable to both the historic and precontact periods.

Distribution by AREA AND GROUP		
Area 1: Group	**Subtotal**	**Percent**
Activities	37	0.5
Architectural	2289	29.7
Arms and Military	116	1.5
Clothing	30	0.4
Commercial/Industrial Activities	167	2.2
Domestic Activities	14	0.2
Faunal/Floral	2270	29.4
Food Preparation/Consumption	1119	14.5
Fuel	838	10.9
Furniture	18	0.2
Medical/Hygiene	10	0.1
n/a	1	0.0
Native	605	7.8
Personal	6	0.1
Smoking	54	0.7
Unassigned Material	125	1.6
(blank)	13	0.2
Grand Total	**7712**	100.0

Within Area 1 the most abundant type of artifact is within the Architectural Group. This is mostly comprised of nails and window glass and all artifacts are assumed to be related to the construction and destruction of the two buildings found – the early building and a later smithy. Faunal bone comprises the next most numerous Group and point to a domestic occupation. The high percentage of food preparation artifacts, mostly ceramics, with some container glass, supports the identification of this structure(s) as a domestic occupation. The Fuel group is made up of the charcoal pieces collected – some of which are related to the domestic occupation and others to the smithy. Other artifact Groups are those commonly found associated with domestic occupations. The relatively high number of Native artifacts reflects the ubiquitous chert debitage found *in situ* in subsoil and in displaced contexts where human activities have resulted in the disturbance to subsoil.

Distribution by AREA AND GROUP		
Area 2: Group	**Subtotal**	**Percent**
Activities	10	0.1
Architectural	4842	29.1
Arms and Military	43	0.3
Clothing	45	0.3
Commercial/Industrial Activities	114	0.7
Domestic Activities	169	1.0
Faunal/Floral	3786	22.8
Food Preparation/Consumption	6357	38.3
Fuel	445	2.7
Furniture	130	0.8
Medical/Hygiene	9	0.1
Native	357	2.1
Personal	14	0.1
Smoking	105	0.6
Unassigned Material	192	1.2
Group Total	16618	100.0

The significant difference between Areas 1 and 2 is the proportion of Food Preparation Group artifacts found in the latter. In sheer numbers this group is almost six times larger than in Area 1. At 38 the Group is comprised of tableware ceramics predominantly with container glass and other dietary related items as well. The Architectural Group is similar in proportion but significantly high in number, comprised of mostly nails and window glass. This is due to the larger footprint of the two buildings and the evidence of demolition and rebuilding. Faunal bone is also more numerous and is indicative of the simultaneous occupation of the building by more than a single household/occupant as may have been the case with the much smaller building in Area 1. At least two

occupants/households are suggested based on the double fireplace, leading to the conclusion that this was an officers' quarters. Other artifact Groups are more numerous compared to Area 1 and reflect a more intensive occupation. Both Area 1 and 2 buildings appear to have been occupied during the third quarter of the 18th century, if not earlier, until 1804/1805. It is most likely that multiple occupants were quartered in both structures during this time.

Distribution by AREA AND GROUP		
Area 3: Group	**Subtotal**	**Percent**
Activities	7	0.1
Architectural	2305	33.8
Arms and Military	24	0.4
Clothing	13	0.2
Commercial/Industrial Activities	12	0.2
Domestic Activities	8	0.1
Faunal/Floral	737	10.8
Food Preparation/Consumption	889	13.0
Fuel	370	5.4
Furniture	4	0.1
Medical/Hygiene	10	0.1
Native	2286	33.5
Personal	2	0.03
Smoking	116	1.7
Unassigned Material	42	0.6
	6825	100.0

Area 3 has the smallest assemblage although close in number to Area 1. Architectural items, nails and window glass, are quite similar in number although the proportion of the Group to the whole differs slightly compared to Area 1. This is due to the large number of Native Group artifacts, chert debitage mostly, that comprise 1/3 of the total assemblage. The quantity of nails and window glass suggest a structure of similar size to that in Area 1. The total area of excavation in Area 1 (14 square metres) and Area 3 (15 square metres) allows for a meaningful comparison. Based on the frequencies Food Preparation artifacts, again mostly tableware ceramics, are quite close, although still higher in Area 1. The most significant difference between the Area 1 and Area 3 assemblage is in the frequency of faunal bone. More than 3 times the number of faunal bones were found in Area 1 compared to Area 3. This suggests different behavioural patterns perhaps due to duration of occupation or number of occupants. The earliest date of occupation does not appear to differ from Area 1; i.e., the last quarter or third of the 18th century. There is some evidence that the structure in Area 3 may not have stood for as long as in Area 1. The 1805 drawing by Sempronius Stretton does not appear to show the building in Area 3, although it is present in 1804. It is not clear if the Area 1 structure was present in 1805. In any event, the other significant differences are in the number of Arms and Military artifacts and the Smoking Group. For the former Group, the number is substantially higher in Area 1, due in large part to the quantity of lead shot (musket, rifle, buckshot and bird shot) recovered from the forge where they appear to have been cast. Smoking pipe fragments are by contrast higher in Area 3 and may indicate a behavioural pattern different from that in Area 1.

The following discussion focuses on the distribution of artifacts by Unit within the Excavation Area of which they are a part. Anomalies are highlighted in red based on comparisons of the percentages of each Group in the Unit and the same percentage for the Area as a whole. Variances of greater than 4 are identified as being anomalous. This is meant to identify differences in function or behaviour within each Area, or building(s) within that Area.

AREA 1 - Officer's Quarters and Smithy

The greatest disparity in Unit A, compared to the Area as a whole, is found in the Architectural Group. As a proportion of the Unit A assemblage, this Group makes up almost 2/3 of the artifacts found. Nails predominate in this Group and are attributable to the wooden floor that was exposed in this unit. Nails are presumed to be *in situ* or little disturbed form their original context. Faunal remains are significantly lower as are Food Preparation Group artifacts, mostly ceramics. The suggestion is that this area of the structure was not used for food preparation and may instead be a bed chamber/sitting room.

Distribution by AREA, UNIT AND GROUP			
Area 1: Unit 17A			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.4	-0.1
Architectural	175	65.8	36.1
Arms and Military	9	3.4	1.9
Clothing	3	1.1	0.7
Commercial/Industrial Activities	7	2.6	0.4
Faunal/Floral	26	9.8	-19.6
Food Preparation/Consumption	21	7.9	-6.6
Fuel	14	5.3	-5.6
Furniture	2	0.8	0.6
Native	4	1.5	-6.3
Smoking	2	0.8	0.1
Unassigned Material	2	0.8	-0.8
	266	100.0	0.6

In Unit B the greatest deviation from the Area Group proportion is found in the Fuel category. In this Group charcoal makes up the majority of items although coal was also present in lesser numbers.

Distribution by AREA, UNIT AND GROUP			
Area 1: Unit 17B			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	8	0.7	0.2
Architectural	242	22.0	-7.7
Arms and Military	63	5.7	4.2
Clothing	3	0.3	-0.1
Commercial/Industrial Activities	24	2.2	0.0
Domestic Activities	6	0.5	0.3
Faunal/Floral	286	26.0	-3.4

Food Preparation/Consumption	101	9.2	-5.3
Fuel	227	20.7	9.8
Furniture	4	0.4	0.2
Native	105	9.6	1.8
Personal	3	0.3	0.2
Smoking	4	0.4	-0.3
Unassigned Material	23	2.1	0.5
	1099	100.0	0.3

Collection of the samples was done consistently and should not reflect a sampling bias but rather an estimate of the actual quantity of charcoal found in each unit in Area 1. The greater proportion of charcoal and coal found in unit B reflects the presence of the forge in this unit. Architectural items occur in a lesser proportion than the Area as a whole, although the numbers are comparable to Unit A. Food Preparation Group artifacts are lower and indicate the utilitarian nature of this part of the building where blacksmithing was done rather than domestic activities. Lastly, the quantity of lead shot was high in this area, reflecting the use of the forge for casting lead shot.

Distribution by AREA, UNIT AND GROUP			
Area 1: Unit 17C			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	25	0.5	0.0
Architectural	1552	30.1	0.4
Arms and Military	34	0.7	-0.8
Clothing	20	0.4	0.0
Commercial/Industrial Activities	124	2.4	0.2
Domestic Activities	7	0.1	-0.1
Faunal/Floral	1497	29.1	-0.3
Food Preparation/Consumption	783	15.2	0.7
Fuel	520	10.1	-0.8
Furniture	10	0.2	0.0
Medical/Hygiene	10	0.2	0.1
n/a	1	0.0	0.0
Native	448	8.7	0.9
Personal	3	0.1	0.0
Smoking	37	0.7	0.0
Unassigned Material	79	1.5	-0.1
(blank)	3	0.1	-0.1
	5153	100.0	0.0

Unit C comprises more than 2/3 of the assemblage from Area 1. Consequently, the Unit is representative of the Area as a whole and no significant deviations are identified. Of interest are the frequencies of artifacts found in each category. Architectural Group artifacts are highest in the final destruction phase of the building and indicate that most of the demolition debris was piled here and later buried in this corner of the structure. The relatively high number of Faunal Group and Food Preparation artifacts suggests that this was the location where food consumption occurred within the structure. This corner of the building is also the suspected entrance and as such the place where the most activity took place, eating and leisure.

Distribution by AREA, UNIT AND GROUP			
Area 1: Unit 17D			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	3	0.3	-0.2
Architectural	320	26.8	-2.9
Arms and Military	10	0.8	-0.7
Clothing	4	0.3	-0.1
Commercial/Industrial Activities	12	1.0	-1.2
Domestic Activities	1	0.1	-0.1
Faunal/Floral	461	38.6	9.2
Food Preparation/Consumption	214	17.9	3.4
Fuel	77	6.4	-4.5
Furniture	2	0.2	0.0
Native	48	4.0	-3.8
Smoking	11	0.9	0.2
Unassigned Material	21	1.8	0.2
(blank)	10	0.8	0.6
	1194	100.0	0.2

This unit is located at the rear of the forge in a small space between the building foundation and the forge. Evidence for a wooden floor was found here suggesting that the small space served a purpose within the building. Whatever the purpose, the relatively high quantity of faunal bone and Food Preparation items (ceramics) suggests that refuse disposal occurred here.

AREA 2 – Officers' Quarters (Mess, Bed Chamber, Kitchen, Front and Rear Rooms)

This unit comprises a very small percentage (5.2) of the entire area. It is located in the presumed corner of the structure which may account for the relatively high proportion of Architectural group items - nails and window glass. The presence of a burned floor also results in a higher number of nails burned *in situ*. The number and proportion of Faunal material is significantly lower than in other areas which may indicate that this area of the building was used for purposes other than food preparation, possibly a sleeping chamber or sitting room. The brick platform found in this unit was thought to be for a stove used for heating rather than cooking. Smoking pipes are slightly more abundant than the area average which supports the idea that this may have been a sitting room.

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17E			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Architectural	332	38.3	9.2
Arms and Military	2	0.2	-0.1
Clothing	2	0.2	-0.1
Domestic Activities	2	0.2	-0.8
Faunal/Floral	76	8.8	-14.0
Food Preparation/Consumption	322	37.2	-1.0
Fuel	62	7.2	4.5
Native	6	0.7	-1.4
Smoking	28	3.2	2.6
Unassigned Material	34	3.9	2.7
Unit Total	866	100.0	1.7

The assemblage from unit F is by far the largest of any unit in Area 2. Almost 42 of the artifacts found in this area come from unit F. Due to the volume of material, the unit serves as the 'norm' for the excavation Area against which other units are measured. That being the case, there is still an inordinately large number and proportion of faunal bone found here. Bone and Food Preparation Group artifacts – mostly ceramics with some container glass, utensils, and glass tableware – comprise almost 2/3 of the assemblage. The unit is located in the approximate centre of the large structure and the abundance of food consumption artifacts suggests that this may be a communal dining area or an officers' mess. The double fireplace in units J and K, as well as the stove in unit E suggests that more than one officer lived in the quarters. The large number of Architectural Group artifacts – nails and window glass – suggests that this location, in the centre of the building, was where the destruction debris was concentrated during demolition.

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17F			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	6	0.1	0.0
Architectural	1918	27.7	-1.4

Arms and Military	22	0.3	0.0
Clothing	17	0.2	-0.1
Commercial/Industrial Activities	43	0.6	-0.1
Domestic Activities	23	0.3	-0.7
Faunal/Floral	1897	27.4	4.6
Food Preparation/Consumption	2541	36.7	-1.5
Fuel	100	1.4	-1.3
Furniture	34	0.5	-0.3
Medical/Hygiene	5	0.1	0.0
Native	185	2.7	0.6
Personal	5	0.1	0.0
Smoking	36	0.5	-0.1
Unassigned Material	98	1.4	0.2
Unit Total	6930	100.0	-0.1

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17G			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.0	-0.1
Architectural	856	24.3	-4.8
Arms and Military	8	0.2	-0.1
Clothing	6	0.2	-0.1
Commercial/Industrial Activities	61	1.7	1.0
Domestic Activities	112	3.2	2.2
Faunal/Floral	840	23.9	1.1
Food Preparation/Consumption	1426	40.6	2.4
Fuel	86	2.4	-0.3
Furniture	53	1.5	0.7
Medical/Hygiene	1	0.0	-0.1
Native	36	1.0	-1.1
Personal	5	0.1	0.9
Smoking	12	0.3	-0.5
Unassigned Material	13	0.4	-0.9
Unit Total	3516	100.0	0.6

Unit G is located along the presumed east wall of the building. A cellar was found in the adjacent unit in 2015 which provides some context for the artifacts found here. As with Unit F, the combined Faunal Bone and Food Preparation Groups make up almost 2/3 of the assemblage. Here, however, the proximity to the cellar suggests that this is where meal preparation may have taken place, possibly the kitchen itself. The large double fireplace is located only meters away and this presumably would have served as a cooking fireplace at least on the side closest to the cellar by Unit G. Among the artifacts recovered were a box lock, brass spigot, 10 barrel hoops or fragments thereof, and about 50 bottle shards, all of which suggest storage of dry goods and probably spirits. Bone button blanks, indicating manufacture of

buttons in the building, were also numerous (n 98). A total of 44 lamp glass fragments also supports the idea that this was a work area. The only anomalous category is the Architectural Group with a lower proportion of these items than would be expected based on the Area average for this group. The actual number of nails and window glass fragments is quite high however, and the assemblage itself comprises more than 20 of the Area total.

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17H			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Architectural	206	27.3	-1.8
Arms and Military	2	0.3	0.0
Commercial/Industrial Activities	5	0.7	0.0
Faunal/Floral	159	21.1	-1.7
Food Preparation/Consumption	290	38.5	0.3
Fuel	14	1.9	-0.8
Medical/Hygiene	1	0.1	0.0
Native	63	8.4	6.3
Smoking	2	0.3	-0.3
Unassigned Material	12	1.6	0.4
Unit Total	754	100.0	2.2

Unit H has the smallest number of artifacts of all the units in Area 2. As in other units, Faunal and Food Preparation group artifacts comprise almost 60 of the assemblage. Native Group artifacts – lithic debitage – are higher than the average for the area and this is due to the disturbance to subsoil in connection with the west wall foundation footing trench. This type of disturbance was not present to any significant extent in other units. Interestingly, a Spanish silver reale coin dated 1782 was found in the unit. This was classified as an historic native artifact due to a perforation for hanging on a cord or chain if used as 'trade silver' jewellery.

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17J			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	2	0.1	0.0
Architectural	596	31.7	2.6
Arms and Military	2	0.1	-0.2
Clothing	6	0.3	0.0
Domestic Activities	22	1.2	0.2
Faunal/Floral	306	16.3	-6.5
Food Preparation/Consumption	786	41.8	3.6
Fuel	27	1.4	-1.3
Furniture	41	2.2	1.4
Medical/Hygiene	2	0.1	0.0
Native	43	2.3	0.2
Personal	2	0.1	2.2

Smoking	16	0.9	-0.5
Unassigned Material	30	1.6	-0.3
Unit Total	1881	100.0	1.3

Unit J is located on the southwest corner of the large double fireplace at the south end of the building. The only variation from the average is in the Faunal group. Fewer bones make up the assemblage in this unit which may indicate a different use for this side of the double fireplace. As will be seen in unit K on the other side of the fireplace, closer to the presumed kitchen (Unit G), the number of faunal bones is greater. Each side of the fireplace would have had separate rooms and it is possible that these were used for different purposes. The west room, in unit J, may have been where meals were taken, rather than prepared. The considerable proportion and number of tableware ceramics in the Food Preparation group is certainly evidence that meal consumption occurred in this part of the building. Architectural Group artifacts are ubiquitous and relate to the various construction and destruction episodes represented here.

Distribution by AREA, UNIT AND GROUP			
Area 2: Unit 17K			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.0	-0.1
Architectural	934	35.0	5.9
Arms and Military	7	0.3	0.0
Clothing	14	0.5	0.2
Commercial/Industrial Activities	5	0.2	-0.5
Domestic Activities	10	0.4	-0.6
Faunal/Floral	508	19.0	-3.8
Food Preparation/Consumption	992	37.1	-1.1
Fuel	156	5.8	3.1

Unit K, on the east side of the double fireplace, is in closer proximity to the presumed kitchen represented by unit G. There is a higher frequency of faunal bone in this unit compared to Unit J, which suggests a different function. Although there is a slightly lower number of Food Preparation artifacts – comprised of ceramics primarily - the abundance of this artifact type is still high suggesting that food consumption also occurred in this area within the building. Differences in the

Furniture	2	0.1	-0.7
Native	24	0.9	-1.2
Personal	2	0.1	0.8
Smoking	11	0.4	-0.5
Unassigned Material	5	0.2	-0.8
Unit Total	2671	100.0	0.7

abundance of artifacts found in Units J and K, as well as the proportions of finds in other categories, may be due to the position of this unit relative to the entrance. In 2015, excavation in unit R found evidence that the entrance to the building was just to the south and east of the fireplace. If so, the traffic in the part of the building represented by unit K would have been more intensive, especially if a wall divided the space into an east (Unit K) and west (Unit J) room (running through the centre of the fireplace). This is a type of plan referred to as 'double-pile' or 'double-cell' where a front room by the main entrance (Unit K) is separated by a wall from the rear room (Unit J). The

anomalous group is Architectural with a higher proportion of finds than the average for Area 2. The presence of structural elements such as a doorway, south wall and floor surrounding the fireplace, may be the factors contributing to a higher number of nails and window glass.

AREA 3 – Officer's Quarters

Unit M comprises 15 of the Area 3 assemblage with the second highest number of artifacts. The unit is located on the east side of the building, with a wall foundation along the west side of the unit which divided the building into an east and west half. The presence of a dividing wall suggests a double-pile or double-cell floorplan as discussed in Area 2. Architectural Group artifacts are most numerous comprising more than a third of the total assemblage.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17M			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Architectural	360	34.7	0.9
Arms and Military	2	0.2	-0.2
Clothing	4	0.4	0.2
Domestic Activities	1	0.1	0.0
Faunal/Floral	113	10.9	0.1
Food Preparation/Consumption	158	15.2	2.2
Fuel	46	4.4	-1.0
Furniture	1	0.1	0.0
Medical/Hygiene	3	0.3	0.2
Native	327	31.5	-2.0
Smoking	18	1.7	0.0
Unassigned Material	5	0.5	-0.1
	1038	100.0	0.3

The relatively high number of nails are related to an *in situ* burnt floor. Faunal Bone and Food Preparation make up more than a quarter of the number of artifacts found and indicate that food consumption occurred in this part of the structure, likely an officer's quarters. The high percentage of Native artifacts is due to the disturbance to subsoil and the displacement of material caused by the foundation wall trench and floor features.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17N			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.1	0.0
Architectural	524	53.9	20.1
Arms and Military	5	0.5	0.1
Clothing	3	0.3	0.1
Domestic Activities	1	0.1	0.0
Faunal/Floral	137	14.1	3.3
Food Preparation/Consumption	169	17.4	4.4
Fuel	40	4.1	-1.3
Furniture	1	0.1	0.0
Native	57	5.9	-27.6
Smoking	18	1.9	0.2
Unassigned Material	16	1.6	1.0
	972	100.0	0.3

The total number of artifacts found in Unit N is also substantial and comprises about 14 of the total Area 3 assemblage. The Architectural Group makes up more than half of the artifacts found. Most of these are nails found in association with the sleeper trenches and sub-floor deposits associated with the occupation and destruction of the

two structures in this Area. The relatively high proportion and number of Food Preparation artifacts suggests that the space occupied by Unit N, located on the west side of a dividing wall, may have been for food consumption. In a double-pile, or double-cell, floorplan as was discussed in Area 2, this space may have served as the front room where meals were taken. The Native Group is substantially lower than the Area 3 average and this is due to the minimal disturbance to the subsoil, resulting in artifact displacement, here compared to other units.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17P			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.1	0.0
Architectural	239	31.5	-2.3
Arms and Military	2	0.3	-0.1
Clothing	2	0.3	0.1
Domestic Activities	1	0.1	0.0
Faunal/Floral	68	9.0	-1.8
Food Preparation/Consumption	119	15.7	2.7
Fuel	57	7.5	2.1
Medical/Hygiene	1	0.1	0.0
Native	249	32.8	-0.7
Personal	2	0.3	0.2
Smoking	16	2.1	0.4
Unassigned Material	2	0.3	-0.3
	759	100.0	0.3

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17Q			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	1	0.1	0.0
Architectural	267	14.4	-19.4
Clothing	1	0.1	-0.1
Domestic Activities	1	0.1	0.0
Faunal/Floral	61	3.3	-7.5
Food Preparation/Consumption	121	6.5	-6.5
Fuel	216	11.7	6.3
Native	1151	62.2	28.7
Smoking	19	1.0	-0.7
Unassigned Material	11	0.6	0.0
	1849	100.0	0.8

The assemblage for this unit makes up about 11 of the total for Area 3. The lesser numbers of artifacts are attributable to the location of this unit in relation to the structure. Structural evidence indicates that this unit is on the exterior of the south-eastern corner of both the early and late dwellings – both likely officer's quarters. As such, artifacts are not in primary context deposited during the occupation of the building but are instead associated with destruction activities. The proportions of artifacts within the various Groups reflect the activities characteristic of the area. The relatively high proportion of Native Group artifacts – chert debitage – in the assemblage is due in part to disturbance of subsoil and the displacement of this material into later contexts.

The salient aspect of Unit Q is the quantity of Native Group artifacts. Almost 2/3 of the assemblage is comprised of chert debitage. This is the only unit that was excavated to any great extent into the subsoil. Evidence of pits and at least 2 layers of disturbed subsoil as a result of occupation were found in the pre-contact contexts. Late Woodland ceramics were also found in this unit together with artifacts diagnostic of the Late Archaic. Together the evidence indicates a multicomponent occupation spanning at least 2500 years. The proportions and absolute frequencies of all historic period artifact groups is lesser here than in other units located farther to the north and directly related to the structures. Historic period artifacts found in this area are in secondary context and associated mostly with the destruction of both the early and the late period buildings.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17R			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Architectural	286	41.1	7.3
Faunal/Floral	29	4.2	-6.6
Food Preparation/Consumption	136	19.5	6.5
Fuel	4	0.6	-4.8
Native	223	32.0	-1.5
Smoking	17	2.4	0.7
Unassigned Material	1	0.1	-0.5
	696	100.0	1.2

Unit R is situated at the very south end of Area 3, the unit farthest away from the two structures. Excavation did extend into subsoil to the same degree as in the adjacent unit Q and consequently Native Group artifacts are not as abundant in the inventory. The frequencies of other artifact groups are comparable to unit Q and are associated with the demolition of the structures and the deposition and spread of artifacts as a result of that activity.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17S			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Architectural	344	47.7	13.9
Arms and Military	8	1.1	0.7
Commercial/Industrial Activities	9	1.2	1.0
Domestic Activities	1	0.1	0.0
Faunal/Floral	114	15.8	5.0
Food Preparation/Consumption	111	15.4	2.4
Fuel	4	0.6	-4.8
Furniture	1	0.1	0.0
Medical/Hygiene	3	0.4	0.3
Native	104	14.4	-19.1
Smoking	15	2.1	0.4
Unassigned Material	7	1.0	0.4
	721	100.0	0.3

This unit is situated at the north end of the building. The greatest anomaly here is the significantly lesser proportion of Native Group artifacts. Although two extensive intrusions into subsoil did occur in this unit, the amount of chert debitage is still low. This suggests that the multi-component site in evidence in unit Q does not extend this far north in Area 3, or

at least that the occupation is not as intensive in this specific location. The other anomaly is the high proportion of Architectural items – nails and window glass – although the absolute number of these artifacts corresponds to the adjacent unit M. It is worth noting however, that the greatest frequency of Architectural Group artifacts is still found in unit N where the best evidence of sleeper trenches and floorboards was found. The number of Faunal bones and Food Preparation Group artifacts is similar to units N and M suggesting a common disposal behaviour in this part of the structure.

Distribution by AREA, UNIT AND GROUP			
Area 3: Unit 17T			
Group	**Subtotal**	**Percent**	**Deviation from Area Assemblage**
Activities	4	0.5	0.4
Architectural	285	36.1	2.3
Arms and Military	7	0.9	0.5
Clothing	3	0.4	0.2
Commercial/Industrial Activities	3	0.4	0.2
Domestic Activities	3	0.4	0.3
Faunal/Floral	215	27.2	16.4
Food Preparation/Consumption	75	9.5	-3.5
Fuel	3	0.4	-5.0
Furniture	1	0.1	0.0
Medical/Hygiene	3	0.4	0.3
Native	175	22.2	-11.3
Smoking	13	1.6	-0.1
	790	100.0	0.6

The last unit in Area 3 is located on the west side of the building(s) – half on the interior and half on the exterior. A significantly higher proportion and number of faunal bones in this unit points to a refuse disposal pattern on the exterior of the structure, probably the side of the building. Floorplans of buildings in Areas 1 and 2 indicate that the entrances were on the south side of the buildings facing the lake. The high number of Food Preparation Group artifacts – predominantly tableware ceramics – in unit N suggests that this may have been the front room in a double-pile or double-cell interior. Food consumption and preparation may both have taken place here and the more noisome waste disposed of around the west side of the building. The back room was presumably in the space occupied by unit M.

Ceramic Analysis

Ceramic assemblages are analysed below for each excavation Area and Unit. The variety of ceramic types found is discussed as well as dating implications. Dating is based on the calculation of the Mean Ceramic Date using the Mean Ceramic Dating formula for historic period tableware (South 1977). The formula uses the calculated mid-range manufacture date for ceramic types derived from historical information for each type. These mid-range dates are weighted by considering the frequency of occurrence of each type or the number of sherds. The Mean Ceramic Date is a value that is based on the weighted occurrence of all the mid-dates for each type found in the assemblage. The Mean Ceramic Date, or MCD, is a 'date' for the ceramic assemblage - Area or Unit - that reflects the mid-range of occupation that might be conceived of as the peak of intensity of occupation.

$$MCD = \frac{\sum_{k=1}^{n} m_k f_k}{\sum_{k=1}^{n} f_k}$$

where m_k median date for type k
f_k frequency of type k
n total number of types

Although there have been many critiques of the method since its introduction several decades ago, it nevertheless continues to be applied as a dating tool for archaeological contexts. At the very least the method serves as a tool for comparing deposits on the same archaeological site, or for comparing entire sites, on a relative scale as 'earlier than' or 'later than'.

For the purposes of this analysis the method has been applied in the standard way using the manufacture dates to calculate the MCD_1. This provides a means of comparing the Fort Erie assemblages with other sites. Two modifications have also been used below. Both modifications apply the formula in the same way but change the terminal date from the end of manufacture to the end of occupation. The purpose of this is to provide a date that is specific to the site based on historical information. The first modification uses the terminal date of 1823, based on the abandonment of Fort Erie (MCD_2), and the second uses the date of 1805 based on the date the old fort was razed and the new fort constructed (MCD_3). The effect of this is to bring the MCD more in line with the actual occupation periods as documented historically.

Ceramic types found at Old Fort Erie range in date from as early as the late 17th century to the 19th century. Certain types dominate the assemblages from Areas and units in every instance. Creamware, manufactured generally between 1762 and 1820 is by far the most common type followed by pearlware (1780-1830). The predominance of these types is the best indicator of the site as the oldest British military fort in the province. In this sense the site is unique in Ontario. The presence of other types that are strictly 18th century in age further highlights the antiquity of the site in terms of the British presence in the province. Types such as tin-glazed, white salt-glazed stoneware, Whieldon ware, and black basalt are very rare on Ontario British (Loyalist period) sites and found in only a handful of locations: e.g., Hamilton, Kingston, Toronto and Niagara-on-the-Lake.

	Manufacture Dates MCD_1			Terminal Date = 1823 MCD_2		Terminal Date = 1805 MCD_3	
Ceramic Tableware	**Initial Date**	**Terminal Date**	**Mid-Date**	**Initial Date**	**Terminal Date**	**Initial Date**	**Terminal Date**
Black Basalt	1750	1820	1785	1764	1820	1764	1805
Blue Transfer	1779	1830	1830	1779	1823	1779	1805
Canaryware	1780	1835	1830	1780	1823	1780	1805
Creamware, Banded	1785	1820	1802.5	1785	1820	1785	1805
Creamware, Edged	1762	1820	1791	1764	1820	1764	1805
Creamware, Feather Edged	1762	1820	1791	1764	1820	1764	1805
Creamware, Industrial Slip	1785	1820	1802.5	1785	1820	1785	1805
Creamware, Lustre	1762	1820	1791	1764	1820	1764	1805
Creamware, Moulded	1762	1820	1791	1764	1820	1764	1805
Creamware, Moulded (No Colour)	1762	1820	1791	1764	1820	1764	1805
Creamware, Other D cor	1762	1820	1791	1764	1820	1764	1805
Creamware, Painted	1765	1815	1790	1765	1815	1765	1805
Creamware, Painted, Unknown Palette	1765	1815	1790	1765	1815	1765	1805
Creamware, Plain	1762	1820	1791	1764	1820	1764	1805
Creamware, Royal Pattern	1762	1820	1791	1764	1820	1764	1805
Creamware, Transfer Print	1783	1820	1801.5	1783	1820	1783	1805
Delftware, Tin Glazed, Faience	1700	1800	1750	1764	1800	1764	1800
Edged	1779	1830	1804.5	1779	1823	1779	1805
Fine Earthenware, Jackfield	1740	1790	1765	1764	1790	1764	1790
Hard Paste Porcelain, Other D cor	1790	1835	1812.5	1790	1823	1790	1805
Hard Paste Porcelain, Painted	1790	1835	1812.5	1790	1823	1790	1805
Ironstone, Transfer Print	1840	1900	1870	1840	1823	1840	1805
Pearlware	1780	1830	1805	1780	1823	1780	1805
Pearlware, Banded	1790	1830	1810	1790	1823	1790	1805
Pearlware, Blue Transfer	1780	1830	1805	1780	1823	1780	1805
Pearlware, Edged	1775	1820	1797.5	1775	1820	1775	1805
Pearlware, Lustre	1780	1830	1805	1780	1823	1780	1805
Pearlware, Other D cor	1780	1830	1805	1780	1823	1780	1805
Pearlware, Other Transfer	1780	1830	1805	1780	1823	1780	1805
Pearlware, Painted Early Palette	1775	1820	1797.5	1775	1820	1775	1805
Pearlware, Painted, Unknown Palette	1780	1830	1805	1780	1823	1780	1805

Pearlware, Plain	1780	1830	1805	1780	1823	1780	1805
Pearlware, Sponge/Spatter	1795	1830	1812.5	1795	1823	1795	1805
Plain	1780	1830	1805	1780	1823	1780	1805
Porcelain	1745	1800	1772.5	1764	1800	1764	1800
Porcelain, Soft Paste	1745	1800	1772.5	1764	1800	1764	1800
Porcelain, Soft Paste Painted	1745	1800	1772.5	1764	1800	1764	1800
Porcelain, Soft Paste, other D cor	1745	1800	1772.5	1764	1800	1764	1800
Porcelain, Soft Paste, Plain	1745	1800	1772.5	1764	1800	1764	1800
Refined Earthenware, Other	1820	1900	1860	1820	1823	1820	1805
RWE, Banded Marbelized	1820	1840	1830	1820	1823	1820	1805
Staffordshire-Type Slipware	1670	1795	1732.5	1764	1795	1764	1795
Tin Glazed, Blue on White, England and Holland	1650	1750	1700	1764	1750	1764	1750
Tin Glazed, Polychrome	1650	1750	1700	1764	1750	1764	1750
White Salt Glazed Stoneware, Scratch Blue	1720	1770	1745	1764	1770	1764	1770
White Salt-Glazed Stoneware	1720	1770	1745	1764	1770	1764	1770
White Salt-Glazed Stoneware, Barley Pattern	1720	1770	1745	1764	1770	1764	1770
White Salt-Glazed Stoneware, Scratch Blue	1735	1775	1755	1764	1775	1764	1775
Whiteware	1820	1900	1860	1820	1823	1820	1805
Whiteware, Banded	1820	1840	1830	1820	1823	1820	1805
Whiteware, Banded Mocha	1820	1840	1830	1820	1823	1820	1805
Whiteware, Blue Transfer	1820	1900	1860	1820	1823	1820	1805
Whiteware, Edged	1820	1900	1860	1820	1823	1820	1805
Whiteware, Flow Printed	1840	1900	1870	1840	1823	1840	1805
Whiteware, Late Palette Painted	1830	1900	1865	1830	1823	1830	1805
Whiteware, Moulded	1830	1900	1865	1830	1823	1830	1805
Whiteware, Other Transfer	1830	1900	1865	1830	1823	1830	1805
Whiteware, Painted Early Palette	1830	1840	1835	1830	1823	1830	1805
Whiteware, Painted Unknown Palette	1830	1900	1865	1830	1823	1830	1805
Whiteware, Plain	1820	1900	1860	1820	1823	1820	1805
Whiteware/Vitrified White Earthenware	1830	1900	1865	1830	1823	1830	1805
Yelloware, Plain	1830	1900	1865	1830	1823	1830	1805
Yelloware, Slip Banded	1830	1900	1865	1830	1823	1830	1805

AREA 1 Ceramic Assemblage		
MCD_1 = 1797 MCD_2 = 1796 MCD_3 = 1788		
Ceramic Tableware	**Freq.**	**%**
Black Basalt	1	0.1
Canaryware	2	0.3
Coarse Earthenware, Slipware	2	0.3
Coarse Earthenware, Tin Glazed (Other Colour)	2	0.3
Coarse Red Earthenware, Tin Glazed	2	0.3
Creamware, Banded	3	0.4
Creamware, Edged	24	3.6
Creamware, Feather Edged	2	0.3
Creamware, Moulded	5	0.7
Creamware, Moulded (No Colour)	2	0.3
Creamware, Painted	6	0.9
Creamware, Painted, Unknown Palette	1	0.1
Creamware, Plain	341	51.0
Creamware, Transfer Print	12	1.8
Delftware, Tin Glazed, Faience	1	0.1
Fine Earthenware	7	1.0
Fine Earthenware, Jackfield	8	1.2
Pearlware	20	3.0
Pearlware, Banded	3	0.4
Pearlware, Blue Transfer	29	4.3
Pearlware, Edged	22	3.3
Pearlware, Painted Early Palette	5	0.7
Pearlware, Painted, Unknown Palette	15	2.2
Pearlware, Plain	64	9.6
Porcelain	16	2.4
Porcelain, Soft Paste	3	0.4
Porcelain, Soft Paste Painted	4	0.6
Porcelain, Soft Paste, other D cor	1	0.1
Porcelain, Soft Paste, Plain	2	0.3
Tin Glazed, Blue on White, England and Holland	1	0.1
Tin Glazed, Polychrome	1	0.1
White Salt Glazed Stoneware, Scratch Blue	2	0.3
White Salt-Glazed Stoneware	5	0.7
Whiteware	1	0.1
Whiteware, Blue Transfer	2	0.3
Whiteware, Edged	7	1.0

Whiteware, Late Palette Painted	2	0.3
Whiteware, Painted Early Palette	3	0.4
Whiteware, Painted Unknown Palette	12	1.8
Whiteware, Plain	25	3.7
Whiteware/Vitrified White Earthenware	2	0.3
Yellowware, Plain	1	0.1
	669	100.00

Discussion Area 1 More than half of the ceramic assemblage from Area 1 is comprised of undecorated creamware. This type was the first improved lead-glazed ware to replace the earlier tin-glazed wares and white salt-glazed stoneware that were the dominant tableware types in the 18th century. A few varieties of creamware decoration are found in the assemblage but the most common type of creamware was a plain body with moulded edge decoration. Pearlware began to supplant creamware in the latter part of the 18th century as potters strived to produce a whiter glaze mimicking porcelain. The fact that more 21.5 of the assemblage in Area 1 is comprised of pearlware is a good indication that the more novel types of ceramics were being used even in a frontier setting. Older, 18th century types are still present but to a lesser degree: types such as black basalt, tin glazed, slipware, delftware, and white salt-glazed stoneware point to the continued use of older, perhaps more traditional types of tablewares. Porcelain, a high cost, high status ware, is also present which would suggest that ostentatious display of wealth or socio-economic status was of importance in a frontier setting. The more modern types such as whiteware and yellowware, both of which occur in very small numbers, are likely intrusive from later periods.

Mean Ceramic Dates for this Area range from 1788-1797 depending on the terminal ceramic dates used for the calculation. Interestingly, the 1788 MCD_3 date corresponds closely to the mid-historic date of occupation of about 1784 (1764-1805).

AREA 2 Ceramic Assemblage		
MCD_1 = 1798 MCD_2 = 1796 MCD_3 = 1788		
Ceramic Tableware	**Freq.**	**%**
Black Basalt	2	0.04
Canaryware	4	0.08
Creamware, Banded	9	0.17
Creamware, Edged	10	0.19
Creamware, Feather Edged	1	0.02
Creamware, Industrial Slip	8	0.15
Creamware, Moulded (No Colour)	1	0.02
Creamware, Other D cor	81	1.56
Creamware, Painted	37	0.71
Creamware, Plain	2967	57.11
Creamware, Royal Pattern	21	0.40
Creamware, Transfer Print	14	0.27

Delftware, Tin Glazed, Faience	4	0.08
Fine Earthenware	1	0.02
Hard Paste Porcelain, Other D cor	41	0.79
Hard Paste Porcelain, Painted	19	0.37
Ironstone, Transfer Print	1	0.02
Pearlware, Banded	8	0.15
Pearlware, Blue Transfer	189	3.64
Pearlware, Edged	103	1.98
Pearlware, Lustre	3	0.06
Pearlware, Other D cor	14	0.27
Pearlware, Other Transfer	6	0.12
Pearlware, Painted Early Palette	3	0.06
Pearlware, Painted, Unknown Palette	113	2.18
Pearlware, Plain	777	14.96
Pearlware, Sponge/Spatter	3	0.06
Porcelain	60	1.15
Porcelain, Soft Paste	11	0.22
Porcelain, Soft Paste Painted	63	1.21
Porcelain, Soft Paste, other D cor	56	1.08
Refined Earthenware, Other	5	0.10
Staffordshire-Type Slipware	18	0.35
Tin Glazed, Blue on White, England and Holland	5	0.10
White Salt Glazed Stoneware, Scratch Blue	10	0.19
White Salt-Glazed Stoneware	13	0.25
White Salt-Glazed Stoneware, Barley Pattern	1	0.02
White Salt-Glazed Stoneware, Scratch Blue	1	0.02
Whiteware, Banded	9	0.17
Whiteware, Blue Transfer	22	0.42
Whiteware, Edged	11	0.21
Whiteware, Flow Printed	2	0.04
Whiteware, Late Palette Painted	5	0.10
Whiteware, Moulded	2	0.04
Whiteware, Other Transfer	3	0.06
Whiteware, Painted Early Palette	30	0.58
Whiteware, Painted Unknown Palette	36	0.69
Whiteware, Plain	182	3.50
Whiteware/Vitrified White Earthenware	25	0.48
Yellowware, Plain	7	0.13
Yellowware, Slip Banded	1	0.02
Ceramic Unidentified	177	3.41
AREA Total	5195	100.00

Discussion Area 2 The Area 2 ceramic assemblage is about four times as large as the Area 1 and Area 3 assemblages together. This is a reflection of the size of the structure and also the function. As quarters for more than one officer with an officers' mess and kitchen, the building was used more intensively by more people. Dating information suggests that the building was contemporary with the Area 1 and Area 3 officer's quarters. Creamware is by far the most abundant type making up more than 60 of the assemblage. Pearlware, represented by several decorative techniques comprises almost a quarter of the assemblage. In this regard the Area 2 collection is almost identical to the Area 1 assemblage. Similarly, porcelain makes up more than 3.5 of the ceramics providing evidence that the quarters were used by officers, or persons of relatively high socio-economic status. The presence of older 18th century wares is also a marked similarity between the two buildings.

AREA 3 Ceramic Assemblage		
MCD_1 = 1798 MCD_2 = 1796 MCD_3 = 1789		
Ceramic Tableware	**Freq.**	**%**
Black Basalt	3	0.47
Creamware, Banded	4	0.63
Creamware, Edged	6	0.94
Creamware, Lustre	2	0.31
Creamware, Moulded (No Colour)	8	1.26
Creamware, Painted	15	2.35
Creamware, Plain	310	48.67
Creamware, Royal Pattern	19	2.98
Creamware, Transfer Print	43	6.75
Fine Earthenware	11	1.73
Fine Earthenware, Jackfield	5	0.78
Pearlware	58	9.11
Pearlware, Banded	2	0.31
Pearlware, Blue Transfer	26	4.08
Pearlware, Edged	11	1.73
Pearlware, Lustre	2	0.31
Pearlware, Other D cor	1	0.16
Pearlware, Painted, Unknown Palette	12	1.88
Porcelain	14	2.20
Porcelain, Soft Paste	1	0.16
Porcelain, Soft Paste Painted	8	1.26
Porcelain, Soft Paste, other D cor	1	0.16
Porcelain, Soft Paste, Plain	1	0.16
RWE, Banded Marbelized	1	0.16
Tin Glazed, Blue on White, England and Holland	3	0.47
Unidentifiable	1	0.16
White Salt-Glazed Stoneware	3	0.47

White Salt-Glazed Stoneware, Barley Pattern	1	0.16
Whiteware, Banded	2	0.31
Whiteware, Banded Mocha	1	0.16
Whiteware, Blue Transfer	12	1.88
Whiteware, Flow Printed	1	0.16
Whiteware, Other Transfer	10	1.57
Whiteware, Painted Early Palette	1	0.16
Whiteware, Painted Unknown Palette	2	0.31
Whiteware, Plain	19	2.98
Whiteware/Vitrified White Earthenware	1	0.16
Yelloware, Plain	2	0.31
Ceramic Unidentified	14	2.20
AREA Total	637	100.00

Discussion Area 3 As discussed above, the Area 3 ceramic assemblage is about the same size as the Area 1 assemblage, but much smaller than the Area 2 collection. The difference in frequency is attributed to the function of the building as quarters for a single officer as opposed to the multiple occupants in the Area 2 building. Almost 2/3 of the assemblage is comprised of creamware. Unlike the other two buildings, transfer-printed creamware is in greater abundance here and may reflect personal preference. This is admittedly speculative as there would have been more than one occupant over the decades that the building was in existence. The MCD dates do suggest however that this structure and the other two were contemporary. Pearlware is not quite as well represented here as the other buildings, although it still comprises almost 20 of the assemblage. Porcelain is also present and makes up about 4 of the assemblage. Older 18th century types such as tin-glazed and white salt-glazed stoneware are present also indicating a continuity of occupation for decades and also perhaps a shared supply source over time.

Conclusions In terms of overall frequency Area 1 and 3 are almost identical. The structures in these areas are thought to be of similar size and used as a single officer's quarters. In Area 2 the ceramic assemblage is almost eight times as large. The building in this area is larger in footprint and is thought to be quarters for more than one officer, including an officers' mess, storage room and cellar. Dating information for all three Areas is almost identical comparing the Mean Ceramic Dates. Using the traditional method based on manufacturing dates, and the modifications based on the two historical dates, the result ranges between 1788 and 1798. This suggests that the structures in each excavation Area are contemporary. Historical descriptions and depictions of the fort and settlement from the last quarter of the 18th century to the very early 19th century suggest that the buildings were standing for most of the period that the first Fort Erie was in existence until the construction of the new fort in 1805. The variety of waretypes and decorative types in each Area is also similar: Area 1 - 42 types; Area 3 - 39 types. The greater number of types found in Area 2 (52 varieties) is probably a function of the larger sample size where rarer types are present in very small numbers. Importantly though, the same basic varieties are present in each Area in roughly the same proportions, a commonality which suggests the same acquisition and supply chain, and perhaps a similarity in preference. This may be reflective of a larger British frontier pattern where maintenance of tradition was important through ostentatious display of status ceramics, and adherence to conservative values was important.

Area and Unit Ceramic Assemblages

Ceramics assemblages from individual units within each excavation Area are presented below. The 'deviations' indicate the percentage differences between the type proportions in the overall Area assemblage and the occurrence of these within the specific unit. Differences greater than about 4 are indicated in red as anomalies. In small assemblages the anomalies may be due to sample size error. In units with larger sample sizes the anomalies may reflect differences attributable to room function within the building or behavioural differences such as individual preference or taste. Additional study would be necessary to research these questions further through an examination of other artifact categories for example, but the data here can be considered useful for generating hypotheses to be tested at a future date.

Area 1

17A			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Creamware, Plain	12	80.0	29.0
Creamware, Transfer Print	1	6.7	4.9
Pearlware	1	6.7	2.8
Porcelain, Soft Paste, other D cor	1	6.7	6.6
	15	100.0	43.2

17B			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Creamware, Banded	2	2.7	2.3
Creamware, Edged	1	1.3	-2.3
Creamware, Feather Edged	1	1.3	1.0
Creamware, Plain	32	42.7	-8.3
Creamware, Transfer Print	6	8.0	6.2
Fine Earthenware, Jackfield	1	1.3	0.1
Pearlware	8	10.7	6.8
Pearlware, Blue Transfer	2	2.7	-1.6
Pearlware, Edged	4	5.3	2.0
Pearlware, Painted, Unknown Palette	1	1.3	-0.9
Pearlware, Plain	6	8.0	-1.6
Porcelain	1	1.3	-1.1
Porcelain, Soft Paste Painted	2	2.7	2.1
Porcelain, Soft Paste, Plain	2	2.7	2.4
White Salt-Glazed Stoneware	1	1.3	0.6
Whiteware	1	1.3	1.2
Whiteware, Painted Unknown Palette	1	1.3	-0.5
Whiteware, Plain	3	4.0	0.3
	75	100.0	8.8

17C			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Coarse Earthenware, Slipware	2	0.5	0.2
Coarse Earthenware, Tin Glazed (Other Colour)	2	0.5	0.2
Coarse Red Earthenware, Tin Glazed	2	0.5	0.2
Creamware, Edged	23	5.5	1.9
Creamware, Moulded	4	1.0	0.3
Creamware, Moulded (No Colour)	2	0.5	0.2
Creamware, Painted	5	1.2	0.3
Creamware, Painted, Unknown Palette	1	0.2	0.1
Creamware, Plain	190	45.2	-5.8
Delftware, Tin Glazed, Faience	1	0.2	0.1
Fine Earthenware	7	1.7	0.7
Fine Earthenware, Jackfield	7	1.7	0.7
Pearlware	10	2.4	-0.6
Pearlware, Banded	3	0.7	0.3
Pearlware, Blue Transfer	23	5.5	1.2
Pearlware, Edged	16	3.8	0.5
Pearlware, Painted Early Palette	4	1.0	0.3
Pearlware, Painted, Unknown Palette	13	3.1	0.9
Pearlware, Plain	43	10.2	0.6
Porcelain	13	3.1	0.7
Porcelain, Soft Paste Painted	1	0.2	-0.4
Tin Glazed, Polychrome	1	0.2	0.1
White Salt Glazed Stoneware, Scratch Blue	2	0.5	0.2
White Salt-Glazed Stoneware	3	0.7	0.0
Whiteware, Blue Transfer	2	0.5	0.2
Whiteware, Edged	6	1.4	0.4
Whiteware, Late Palette Painted	2	0.5	0.2
Whiteware, Painted Early Palette	1	0.2	0.1
Whiteware, Painted Unknown Palette	11	2.6	0.8
Whiteware, Plain	17	4.0	0.3
Whiteware/Vitrified White Earthenware	2	0.5	0.2
Yelloware, Plain	1	0.2	0.1
	420	100.0	5.0

17D			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Black Basalt	1	0.6	0.5
Canaryware	2	1.3	1.0
Creamware, Banded	1	0.6	0.2
Creamware, Feather Edged	1	0.6	0.3
Creamware, Moulded	1	0.6	-0.1
Creamware, Painted	1	0.6	-0.3
Creamware, Plain	107	67.3	16.3
Creamware, Transfer Print	5	3.1	1.3
Pearlware	1	0.6	-2.4
Pearlware, Blue Transfer	4	2.5	-1.8
Pearlware, Edged	2	1.3	-2.0
Pearlware, Painted Early Palette	1	0.6	-0.1
Pearlware, Painted, Unknown Palette	1	0.6	-1.6
Pearlware, Plain	15	9.4	-0.2
Porcelain	2	1.3	-1.1
Porcelain, Soft Paste	3	1.9	1.5
Porcelain, Soft Paste Painted	1	0.6	0.0
Tin Glazed, Blue on White, England and Holland	1	0.6	0.5
White Salt-Glazed Stoneware	1	0.6	-0.1
Whiteware, Edged	1	0.6	-0.4
Whiteware, Painted Early Palette	2	1.3	0.9
Whiteware, Plain	5	3.1	-0.6
	159	100.0	12.1

Area 2

17E			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Black Basalt	2	0.7	0.6
Creamware, Banded	5	1.7	1.5
Creamware, Edged	1	0.3	0.1
Creamware, Other D cor	2	0.7	-0.9
Creamware, Painted	2	0.7	0.0
Creamware, Plain	194	64.9	7.8
Pearlware, Banded	2	0.7	0.5
Pearlware, Blue Transfer	20	6.7	3.0
Pearlware, Edged	1	0.3	-1.6
Pearlware, Painted, Unknown Palette	2	0.7	-1.5
Pearlware, Plain	29	9.7	-1.7
Porcelain, Soft Paste	2	0.7	0.6
Porcelain, Soft Paste, other D cor	16	5.4	4.3
White Salt Glazed Stoneware, Scratch Blue	1	0.3	0.1
White Salt-Glazed Stoneware	7	2.3	2.1
Whiteware	1	0.3	-0.9
Whiteware, Painted Unknown Palette	1	0.3	-0.4
Whiteware, Plain	1	0.3	-2.0
Yelloware, Plain	1	0.3	0.2
Ceramic Unidentified	9	3.0	-0.4
Unit Total	299	100.0	11.6

17F			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Creamware, Edged	4	0.2	0.0
Creamware, Industrial Slip	8	0.4	0.2
Creamware, Moulded (No Colour)	1	0.0	0.0
Creamware, Painted	14	0.7	0.6
Creamware, Plain	1368	63.8	6.7
Creamware, Royal Pattern	21	1.0	0.6
Creamware, Transfer Print	10	0.5	0.2
Hard Paste Porcelain, Other D cor	41	1.9	1.1
Hard Paste Porcelain, Painted	19	0.9	0.5
Pearlware	51	2.4	-1.2
Pearlware, Banded	2	0.1	-0.1
Pearlware, Blue Transfer	25	1.2	-2.5
Pearlware, Edged	15	0.7	-1.3

Pearlware, Other D cor	2	0.1	-0.2
Pearlware, Other Transfer	2	0.1	0.0
Pearlware, Painted, Unknown Palette	11	0.5	-1.7
Pearlware, Plain	138	6.4	-4.9
Pearlware, Sponge/Spatter	2	0.1	0.0
Porcelain	38	1.8	0.6
Porcelain, Soft Paste	2	0.1	0.0
Porcelain, Soft Paste Painted	45	2.1	0.9
Porcelain, Soft Paste, other D cor	30	1.4	0.3
Refined Earthenware, Other	5	0.2	0.1
Staffordshire-Type Slipware	4	0.2	-0.2
Tin Glazed, Blue on White, England and Holland	1	0.0	-0.1
White Salt Glazed Stoneware, Scratch Blue	2	0.1	-0.1
White Salt-Glazed Stoneware	2	0.1	-0.2
Whiteware	59	2.8	1.5
Whiteware, Banded	5	0.2	0.1
Whiteware, Blue Transfer	19	0.9	0.5
Whiteware, Edged	11	0.5	0.3
Whiteware, Flow Printed	2	0.1	0.1
Whiteware, Late Palette Painted	5	0.2	0.1
Whiteware, Other Transfer	2	0.1	0.0
Whiteware, Painted Early Palette	6	0.3	-0.4
Whiteware, Painted Unknown Palette	29	1.4	0.7
Whiteware, Plain	52	2.4	0.1
Whiteware/Vitrified White Earthenware	25	1.2	0.7
Yelloware, Plain	3	0.1	0.0
Yelloware, Slip Banded	1	0.0	0.0
Ceramic Unidentified	63	2.9	-0.5
Unit Total	2145	100.0	2.9

17G			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Creamware, Banded	3	0.3	0.1
Creamware, Painted	5	0.4	0.4
Creamware, Plain	543	47.5	-9.6
Fine Earthenware	1	0.1	0.1
Ironstone, Transfer Print	1	0.1	0.1
Pearlware	24	2.1	-1.5
Pearlware, Banded	3	0.3	0.1
Pearlware, Blue Transfer	82	7.2	3.5
Pearlware, Edged	64	5.6	3.6
Pearlware, Lustre	3	0.3	0.2
Pearlware, Other Transfer	1	0.1	0.0
Pearlware, Painted, Unknown Palette	48	4.2	2.0
Pearlware, Plain	311	27.2	15.8
Porcelain	6	0.5	-0.6
Porcelain, Soft Paste Painted	2	0.2	-1.0
Porcelain, Soft Paste, other D cor	7	0.6	-0.5
Porcelain, Soft Paste, Plain	2	0.2	0.1
Staffordshire-Type Slipware	8	0.7	0.3
White Salt-Glazed Stoneware, Barley Pattern	1	0.1	0.1
Whiteware	3	0.3	-0.9
Whiteware, Moulded	1	0.1	0.0
Whiteware, Painted Early Palette	1	0.1	-0.6
Whiteware, Painted Unknown Palette	2	0.2	-0.5
Whiteware, Plain	4	0.3	-1.9
Ceramic Unidentified	17	1.5	-1.9
Unit Total	1143	100.0	7.3

17H			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Cream Colour/Ivoryware	1	0.5	0.5
Creamware, Painted	2	1.0	0.9
Creamware, Plain	111	52.9	-4.2
Creamware, Transfer Print	2	1.0	0.7
Pearlware	36	17.1	13.5
Pearlware, Blue Transfer	3	1.4	-2.2
Pearlware, Edged	4	1.9	-0.1
Pearlware, Painted, Unknown Palette	3	1.4	-0.8
Porcelain, Soft Paste	1	0.5	0.4
Porcelain, Soft Paste Painted	5	2.4	1.2
Tin Glazed, Blue on White, England and Holland	2	1.0	0.9
White Salt Glazed Stoneware, Scratch Blue	1	0.5	0.3
Whiteware, Banded	4	1.9	1.7
Whiteware, Other Transfer	1	0.5	0.4
Whiteware, Painted Early Palette	7	3.3	2.6
Whiteware, Painted Unknown Palette	3	1.4	0.7
Whiteware, Plain	22	10.5	8.2
Ceramic Unidentified	2	1.0	-2.4
Unit Total	210	100.0	22.3

17J			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Creamware, Edged	2	0.3	0.1
Creamware, Feather Edged	1	0.1	0.1
Creamware, Other D cor	78	11.7	10.1
Creamware, Painted	3	0.4	0.4
Creamware, Plain	344	51.6	-5.5
Creamware, Transfer Print	1	0.1	-0.1
Delftware, Tin Glazed, Faience	4	0.6	0.5
Pearlware	20	3.0	-0.6
Pearlware, Banded	1	0.1	0.0
Pearlware, Blue Transfer	47	7.0	3.4
Pearlware, Edged	12	1.8	-0.2
Pearlware, Other D cor	10	1.5	1.2
Pearlware, Other Transfer	1	0.1	0.0
Pearlware, Painted Early Palette	3	0.4	0.4
Pearlware, Painted, Unknown Palette	14	2.1	-0.1
Pearlware, Plain	23	3.4	-7.9
Pearlware, Sponge/Spatter	1	0.1	0.1
Porcelain	8	1.2	0.0
Porcelain, Soft Paste Painted	1	0.1	-1.1
Porcelain, Soft Paste, other D cor	3	0.4	-0.6
Staffordshire-Type Slipware	6	0.9	0.5
Tin Glazed, Blue on White, England and Holland	2	0.3	0.2
White Earthenware, Unidentified	1	0.1	0.1
White Salt Glazed Stoneware, Scratch Blue	2	0.3	0.1
White Salt-Glazed Stoneware	1	0.1	-0.1
Whiteware, Plain	17	2.5	0.3
Ceramic Unidentified	61	9.1	5.8
Unit Total	667	100.0	7.3

17K			
Ceramic Tableware	**Freq.**	**%**	**Deviations**
Canaryware	4	0.6	0.5
Creamware, Banded	1	0.1	0.0
Creamware, Edged	3	0.4	0.2
Creamware, Other D cor	1	0.1	-1.4
Creamware, Painted	11	1.5	1.5
Creamware, Plain	406	55.8	-1.2
Creamware, Transfer Print	1	0.1	-0.1
Pearlware	56	7.7	4.1
Pearlware, Blue Transfer	12	1.7	-2.0
Pearlware, Edged	7	1.0	-1.0
Pearlware, Other D cor	2	0.3	0.0
Pearlware, Other Transfer	2	0.3	0.2
Pearlware, Painted, Unknown Palette	35	4.8	2.6
Pearlware, Plain	89	12.2	0.9
Porcelain	8	1.1	0.0
Porcelain, Soft Paste Painted	10	1.4	0.2
Porcelain, Soft Paste, Plain	4	0.6	0.4
White Salt Glazed Stoneware, Scratch Blue	5	0.7	0.5
White Salt-Glazed Stoneware	3	0.4	0.2
Whiteware, Blue Transfer	3	0.4	0.0
Whiteware, Moulded	1	0.1	0.1
Whiteware, Painted Early Palette	16	2.2	1.6
Whiteware, Painted Unknown Palette	1	0.1	-0.6
Whiteware, Plain	23	3.2	-1.9
Yelloware, Plain	3	0.4	2.6
Ceramic Unidentified	20	2.8	-0.6
Unit Total	727	100.0	6.6

Area 3

17M			
Ceramic Tableware	**Freq.**	**%**	
Creamware, Lustre	1	1.0	0.6
Creamware, Plain	29	27.6	-21.1
Creamware, Royal Pattern	19	18.1	15.1
Fine Earthenware	10	9.5	7.8
Fine Earthenware, Jackfield	3	2.9	2.1
Pearlware, Banded	1	1.0	0.6
Pearlware, Blue Transfer	4	3.8	-0.3
Pearlware, Edged	5	4.8	3.0
Pearlware, Lustre	2	1.9	1.6
Pearlware, Painted, Unknown Palette	7	6.7	4.8
Pearlware, Plain	3	2.9	0.7
Porcelain	7	6.7	4.5
White Salt-Glazed Stoneware, Barley Pattern	1	1.0	0.8
Whiteware, Blue Transfer	1	1.0	-0.9
Whiteware, Flow Printed	1	1.0	0.8
Whiteware, Other Transfer	1	1.0	-0.6
Whiteware, Painted Unknown Palette	1	1.0	0.6
Whiteware, Plain	4	3.8	0.8
Yelloware, Plain	1	1.0	0.6
Ceramic Unidentified	4	3.8	1.6
Unit Total	105	100.0	23.3

17N			
Ceramic Tableware	**Freq.**	**%**	
Creamware, Banded	1	0.8	0.2
Creamware, Moulded (No Colour)	8	6.7	5.5
Creamware, Painted	2	1.7	-0.7
Creamware, Plain	67	56.3	7.6
Creamware, Transfer Print	8	6.7	0.0
Pearlware	19	16.0	9.1
Pearlware, Blue Transfer	3	2.5	-1.6
Pearlware, Edged	2	1.7	0.0
Pearlware, Painted, Unknown Palette	1	0.8	-1.0
Porcelain	1	0.8	-1.4
Unidentifiable	1	0.8	0.7
White Salt-Glazed Stoneware	1	0.8	0.4
Whiteware, Plain	3	2.5	-0.5
Yelloware, Plain	2	1.7	1.4
Unit Total	119	100.0	19.6

17P			
Ceramic Tableware	**Freq.**	**%**	
Black Basalt	2	2.0	1.6
Creamware, Banded	1	1.0	0.4
Creamware, Edged	4	4.1	3.1
Creamware, Lustre	1	1.0	0.7
Creamware, Painted	2	2.0	-0.3
Creamware, Plain	52	53.1	4.4
Creamware, Transfer Print	12	12.2	5.5
Pearlware	17	17.3	10.4
Pearlware, Blue Transfer	2	2.0	-2.0
Porcelain	2	2.0	-0.2
White Salt-Glazed Stoneware	1	1.0	0.6
Ceramic Unidentified	2	2.0	-0.2
Unit Total	98	100.0	24.0

17Q			
Ceramic Tableware	**Freq.**	**%**	
Creamware, Edged	2	2.3	1.4
Creamware, Painted	1	1.1	-1.2
Creamware, Plain	62	71.3	22.6
Creamware, Transfer Print	6	6.9	0.1
Fine Earthenware	1	1.1	-0.6
Pearlware, Blue Transfer	2	2.3	-1.8
Pearlware, Edged	3	3.4	-0.6
Pearlware, Plain	5	5.7	3.5
Porcelain, Soft Paste Painted	1	1.1	-0.1
Porcelain, Soft Paste, other D cor	1	1.1	1.0
RWE, Banded Marbelized	1	1.1	1.0
White Salt-Glazed Stoneware	1	1.1	0.7
Ceramic Unidentified	1	1.1	-1.1
Unit Total	87	100.0	25.0

17R			
Ceramic Tableware	**Freq.**	**%**	
Creamware, Painted	8	7.8	5.5
Creamware, Plain	47	46.1	-2.6
Creamware, Transfer Print	9	8.8	2.1
Fine Earthenware, Jackfield	2	2.0	1.2
Pearlware, Blue Transfer	9	8.8	4.7
Pearlware, Edged	1	1.0	-3.1
Pearlware, Other D cor	1	1.0	0.8
Pearlware, Plain	6	5.9	3.7
Porcelain	4	3.9	1.7
Porcelain, Soft Paste Painted	4	3.9	2.7
Tin Glazed, Blue on White, England and Holland	3	2.9	2.5
Whiteware, Banded Mocha	1	1.0	0.8
Whiteware, Painted Unknown Palette	1	1.0	0.7
Whiteware, Plain	3	2.9	0.0
Whiteware/Vitrified White Earthenware	1	1.0	0.8
Ceramic Unidentified	2	2.0	-0.2
Unit Total	102	100.0	21.2

17S			
Ceramic Tableware	**Freq.**	**%**	
Black Basalt	1	1.3	0.8
Creamware, Banded	1	1.3	0.7
Creamware, Painted	2	2.6	0.2
Creamware, Plain	39	50.0	1.3
Pearlware	3	3.8	-3.1
Pearlware, Banded	1	1.3	1.0
Pearlware, Blue Transfer	1	1.3	-2.8
Pearlware, Painted, Unknown Palette	2	2.6	0.7
Porcelain, Soft Paste	1	1.3	1.1
Porcelain, Soft Paste Painted	3	3.8	2.6
Porcelain, Soft Paste, Plain	1	1.3	1.1
Whiteware, Banded	2	2.6	2.3
Whiteware, Blue Transfer	2	2.6	0.7
Whiteware, Other Transfer	9	11.5	10.0
Whiteware, Painted Early Palette	1	1.3	1.1
Whiteware, Plain	9	11.5	8.6
Unit Total	78	100.0	26.2

17T			
Ceramic Tableware	**Freq.**	**%**	
Creamware, Banded	1	2.0	1.4
Creamware, Plain	14	28.0	-20.7
Creamware, Transfer Print	8	16.0	9.3
Pearlware	5	10.0	3.1
Pearlware, Blue Transfer	5	10.0	5.9
Pearlware, Painted, Unknown Palette	2	4.0	2.1
Whiteware, Blue Transfer	9	18.0	16.1
Ceramic Unidentified	6	12.0	9.8
	50	100.0	27.0

10.0 Summary and Conclusions

The 2017 excavation was successful in revealing additional information about the structures first investigated in Areas 1, 2, and 3 in 2015.

In Area 1 an early structure, dating from the last quarter of the 18th century, stood on the north side of what is today Lakeshore Road across from the first Fort Erie constructed on the lakeshore in 1764. The first building in Area 1 may be that depicted on an 1804 watercolour by Edward Walsh, and also shown on contemporary 18th century maps. Archaeological evidence indicates that this structure was demolished, and another built in the same location. The artifact collection associated with the early phase of the structure is rich and indicative of a dwelling used for domestic purposes, in this case a single officer's quarters. The second building had a stone forge, large hearthstones, a stone foundation in at least part of the building, and a wooden floor over most of the interior. Blacksmithing artifacts recovered in 2015 such as iron scrap, raw material, and fashioned/repaired items, indicate that the later phase of the structure was as a smithy. Artifacts found in association with both phases of the building indicate that it stood from the 1770s to 1814. The presence of diagnostic US military buttons and US .63 calibre Springfield musket balls associated with the later phase of the structure suggests that the blacksmith shop may have been standing during the American occupation of the fort in the summer and fall of 1814. The building may have been adapted for use as an officer's quarters by the occupying American forces. The entrance to the building was from the side facing the lake and the road paralleling the lakeshore on the other side of which was the first fort.

In Area 2 a large structure served as what is thought to be quarters for more than a single officer. An early phase of the building is present in the south end of the building, centred around a large double fireplace. The artifact assemblage associated with the early phase of the building suggests it was a married officer's quarters. Archaeological evidence indicates that the building was added onto at a later date. The later building may have served as quarters for at least three officers based on the double fireplace and a stove in the northwestern end of the building. A kitchen/storeroom was found in the southeastern corner of the structure, where a cellar was excavated in an adjacent unit in 2015. A large midden in the centre of the demolished structure, with a very high number of food-related items suggests that this may have been an officers' mess. One entrance to the structure was located on the south side, facing the lakeshore, as in Area 1. The position of the double fireplace, entrance and various other structural features indicates that the floor plan was a 'double-pile' or 'double-cell' arrangement with a division separating the building into an east and west half for the front segment. In the back portion, a mess and private sitting room with wood stove appear to have been present.

Traces of a building were found in Area 3 in 2015, to the north of the 2017 excavation area. The evidence found in 2017 confirms that two different buildings were situated here. Unlike the building phases in Areas 1 and 2 where later structures were built on the same footprint as earlier ones, the structures in Area 3 were built in the same location but at a different orientation. This would have required the earlier building to have been razed and a new one built in its place. Artifacts from the structures indicate that they served as quarters for a single officer. As with the officers' quarters in Area 2 the later building had a 'double-cell' floor plan. The west side of the building appears to have been the front room where meals were taken and prepared, and the east side was the backroom. Structural

evidence found associated with the later building included a dry-laid foundation wall that divided the building into an east and west half, and well-preserved subfloor sleeper trenches.

In general, evidence of phases of building construction is present in all three areas. This suggests that the human geography around the first Fort Erie changed little in its 40-year existence. Plans of the fort from the 18th century (Appendix D), as well as depictions from the early 19th century, consistently show a small community of buildings on the road opposite the fort. The fact that structures required repair, or demolition and re-building, is perhaps not surprising given the harsh and demanding frontier conditions. What is of interest is the placement of buildings in the same location, or almost the same location as with the structure in Area 3, with no change in orientation. Clearly, the lakeshore and bordering road, and the position of the first fort on the lakeshore, defined the position of buildings for the entire period. It was not just easier to building in the same location, the options for reconstruction and relocation were limited. In a sense, the area outside the fort can be thought of as a planned community – perhaps the oldest planned British settlement in the province.

Evidence of First Nations during both the pre-contact period and the historic period is considerable in the archaeological record. Diagnostic projectile points and ceramics provide tangible evidence of successive occupations for millennia from the Late Archaic Period to the Late Woodland Period. Analysis of the 2015 lithic assemblage concluded that stone tool production and maintenance occurred here within the context of a permanent settlement as indicated by several pits and occupation layers. In the historic period, trade silver objects, glass beads, and other trade items found in small numbers attests to the presence of First Nations at the settlement in the decades after the first Fort Erie was established n 1764. Certainly, the documentary evidence is rich in references to First Nations visiting the fort and settlement while en route to other locations, but also for councils during times of tension and peace. The visibility of First Nations in the historic period at Fort Erie is not as extensive as one might think based on the documentary evidence, but this may be due to sampling – we are just not excavating in the proper location to find that evidence. Depictions of contemporary settlements such as York and Kingston (Cataraqui) by British military officers often show native people on the outskirts of the settlements, on the geographic and social fringe of Euro-Canadian society. It is hoped that future investigation of the first Fort Erie will provide more evidence on this equally significant part of the province's earliest British community.

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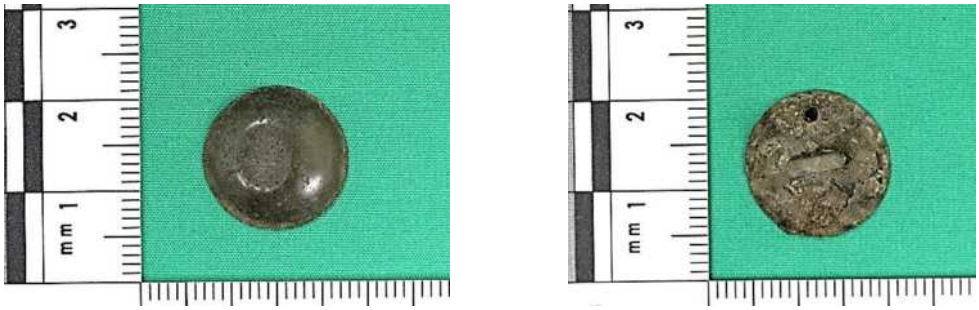
Appendix A
Artifact Photographs

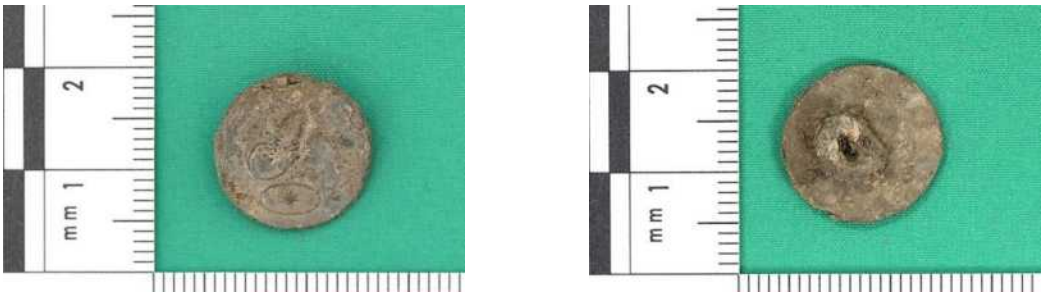
Area 3, Unit 17S, Lot 9
Innes type projectile point – Late Archaic Smallpoint Horizon (3300-2900 B.P.)
(Williamson et al. 2006: 385, 451)

Area 3, Unit 17S, Lot 7/8a
Sandstone Pendant with drilled hole Possible Historic Indigenous

Area 3, Unit 17S, Lot 7/8B
2-Piece Button, brass



Area 3, Unit 17S, Lot ( )
American Infantry button, pewter, 1814



Area 3, Unit 17S, Lot 6
Bone Button

Area 3, Unit 17S, Lot 7/8B
Bone Button

Area 2, Unite 17E, Lot 5
Bone Button

Area 2, Unite 17E, Lot 6

Buckle

Area 3, Unit 17T, Lot 9

Eye aspect of a Hook & Eye

Area 3, Unit 17T, Lot 3
Glass Bead

Area 3, Unit 17T, Lot 12
Possible Lead Fishing Weight

Area 3, Unit 17T, Lot 19/20
Late Woodland Cord-Marked Ceramic

Area 3, Unit 17T, Lot 10
60th Regiment of Foot button, pewter

Area 3, Unit 17T, Lot 12
Button, pewter, unidentifiable

Area 3, Unit 17T, Lot 10
Silver-plated brass straight pin with wound head

Area 3, Unit 17T, Lot 13A
Late Woodland Cord-Marked Ceramic (900-1650 A.D.)

Area 3, Unit 17T, Lot 13A
Late Woodland Cord-Marked Ceramic (900-1650 A.D.)

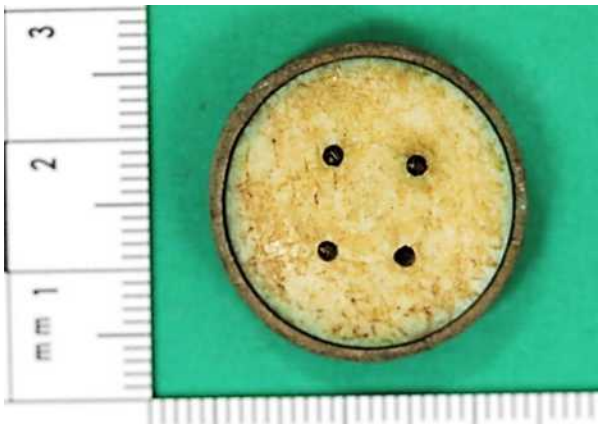
Area 3, Unit 17T, Lot 13A
Officer's Brass 2-piece Button – non-regulation with traces of gilt

Test Pit 75
Lead Ball
.63 caliber Springfield Musket (American)

Area 1, Unit 17D, Lot 12
Pewter button, unidentifiable marking on front

Area 1, Unit 17D, Lot 9
Unidentified 2-piece Dome Button – no shank

Area 1, Unit 17D, Lot 8
5th Regiment of Foot (1792-1796)
Officer's Button with bone back



Area 1, Unit 17D, Lot 9
Officer's 2-piece brass dome button – (gilt traces)

Area 2, Unit 17H, Lot 2
Eye aspect of a Hook & Eye

Area 2, Unit 17H, Lot 3
Lead ball .63 caliber Springfield Musket (American)

Area 2, Unit 17H, Lot 3
Ferrous ring – Possible Dorset button frame

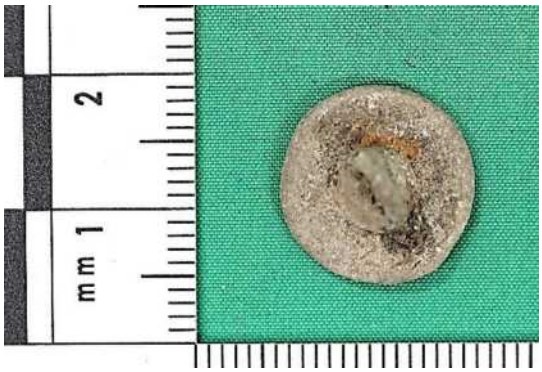
Area 1, Unit 17B, Lot 4
Musket sling ( ) D- buckle, ferrous

Area 2, Unit 17H, Lot 3
Gaiter button with patterned front( )

Area 2, Unit 17H, Lot 3
Carolus III reale silver coin, 1782, minted Mexico City – modified with hole

Area 1, Unit 17B, Lot 11
William III (1689-1702) half penny – date indecipherable

Area 1, Unit 17B, Lot 7
Gaiter button, brass



Area 1, Unit 17B, Lot 4
Lead ball. Buckshot .30 caliber (American)

Area 2, Unit 17K, Lot 14
Smoking pipe with marked spur

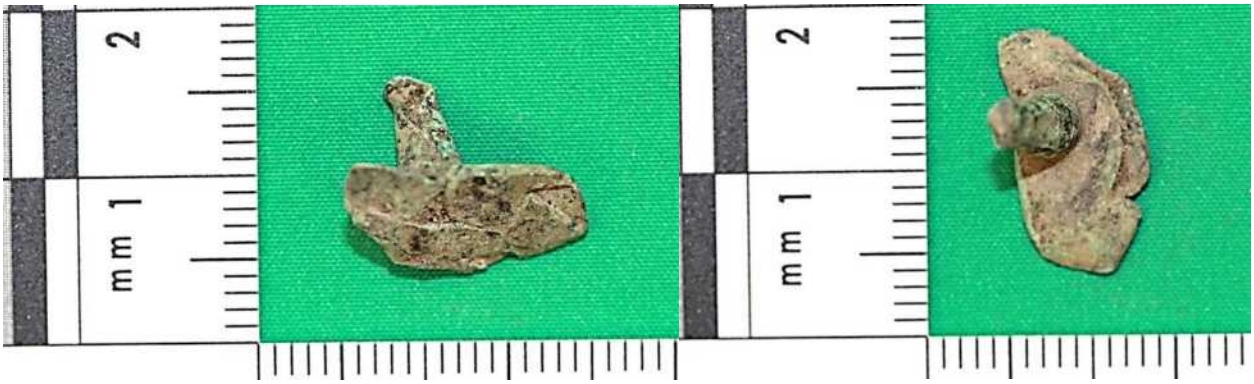
Area 2, Unit 17K, Lot 14
Glass inlay for box

Area 2, Unit 17K, Lot 14
Scrap lead - unidentifiable

Area 2, Unit 17K, Lot 14
Coin, unidentifiable – halfpenny (likely 18th century)

Area 2, Unit 17K, Lot 14
Straight pin (with stamped head)

Area 2, Unit 17K, Lot 14
Copper alloy cartridge box closure-strap finial( )



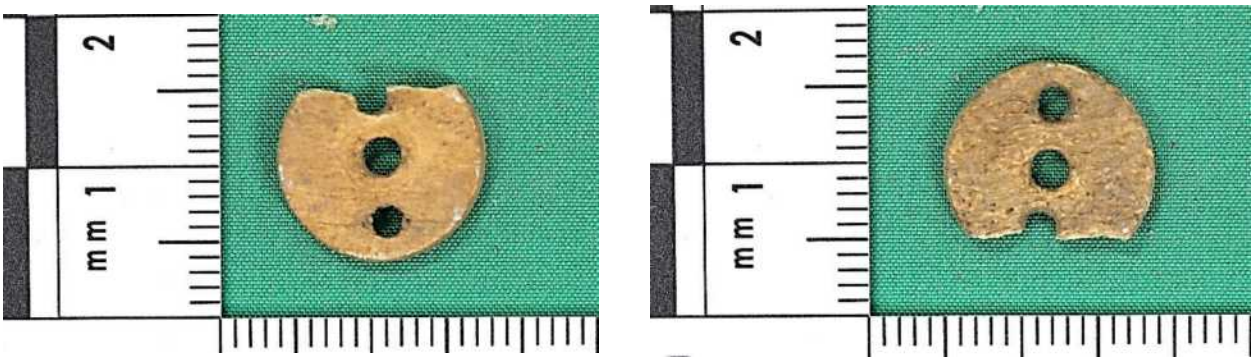
Area 2, Unit 17K, Lot 7
Gaiter button, Britannica (metal) with copper shank and 'spun' or lathe-turned markings

Area 2, Unit 17K, Lot 14/19
5th Regiment of Foot Pewter Button (1792-1796)

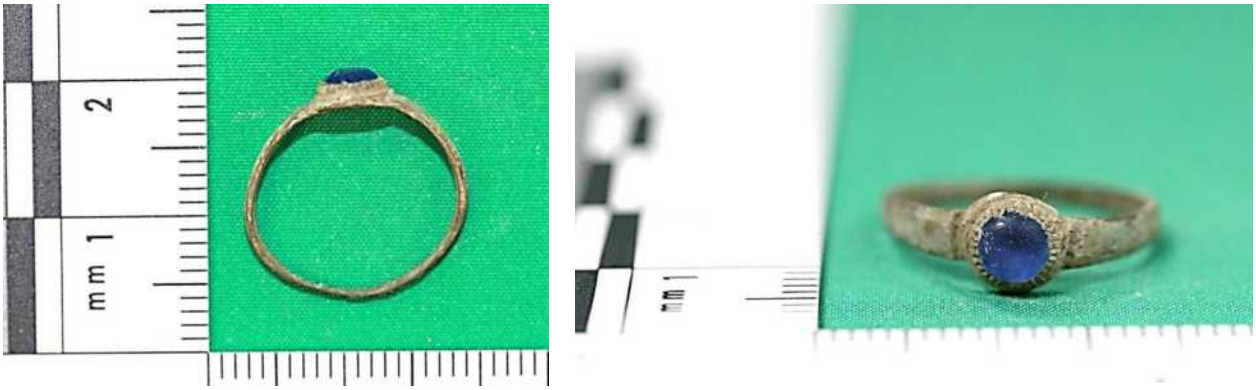
Area 2, Unit 17K, Lot 6
Tinkling cone( ) copper

Area 2, Unit 17K, Lot 14
Musket sling buckle

Area 2, Unit 17K, Lot 14
Bone button



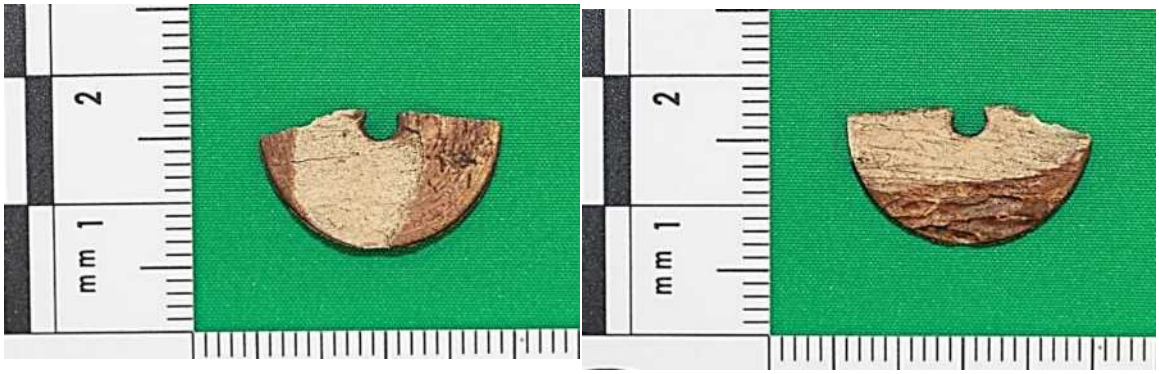
Area 2, Unit 17K, Lot 14
Copper alloy trade ring with blue stone



Area 2, Unit 17K, Lot 5
U.S. Musket ball, lead, .69 caliber (Springfield)

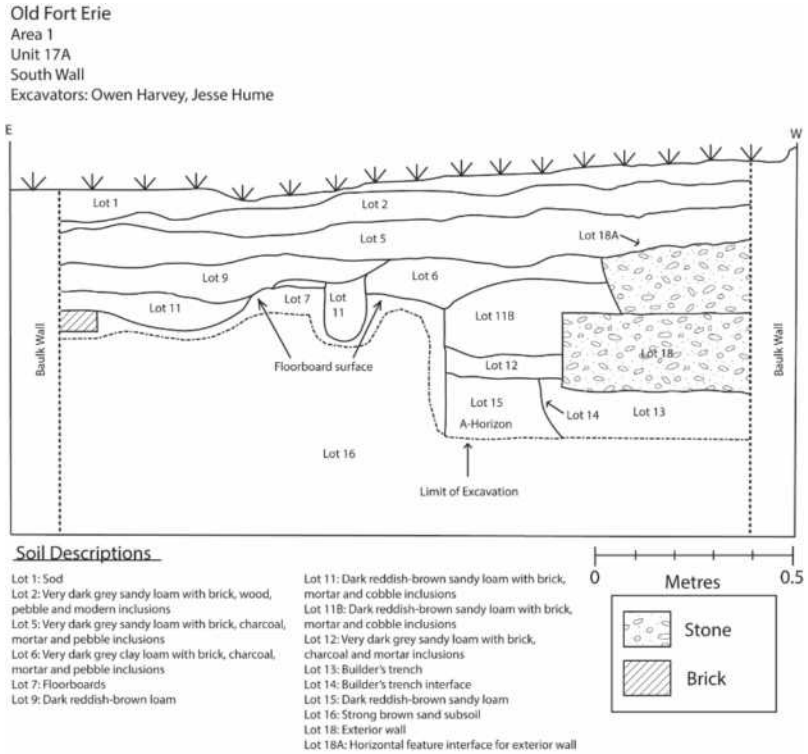
Area 2, Unit 17K, Lot 5
Officer's plain button (traces of gilt)

Area 2, Unit 17K, Lot 5
Bone button



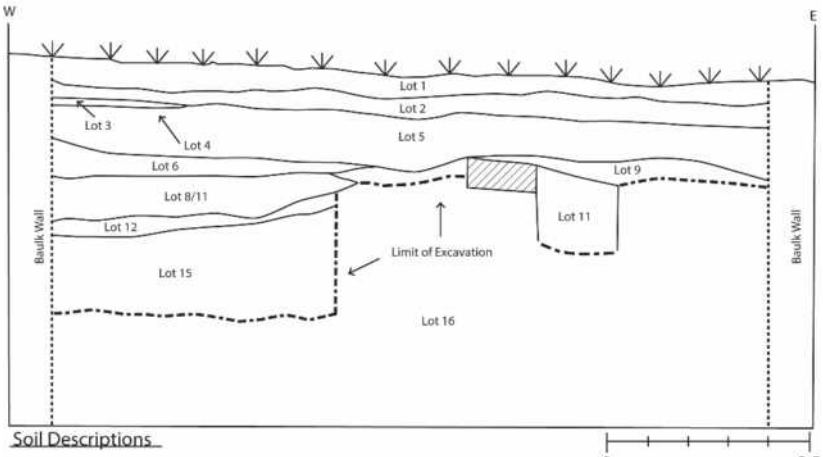
Appendix B
Technical Drawings – Stratigraphic Profiles and Plan Views

AREA 1 - UNIT A



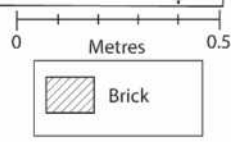
AREA 1 - UNIT A

Old Fort Erie
Area 1
Unit 17A
North Wall
Excavators: Owen Harvey, Jesse Hume

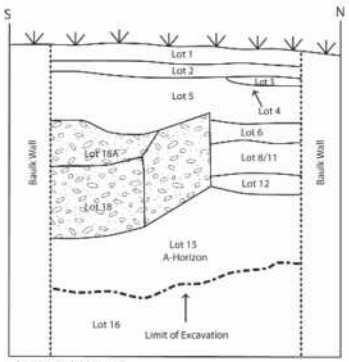


Soil Descriptions

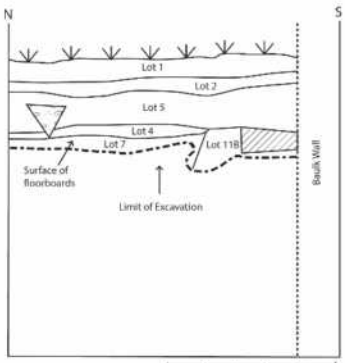
Lot 1: Sod
Lot 2: Very dark grey sandy loam with brick, wood, pebble and modern inclusions
Lot 3: Clay lined depression
Lot 4: Interface for Lot 3
Lot 5: Very dark grey sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 6: Very dark grey clay loam with brick, charcoal, mortar and pebble inclusions
Lot 8: Very dark grey sandy loam with brick, mortar and cobble inclusions
Lot 9: Dark reddish-brown loam
Lot 11: Dark reddish-brown sandy loam with brick, mortar and cobble inclusions
Lot 12: Very dark grey sandy loam with brick, charcoal and mortar inclusions
Lot 15: Dark reddish-brown sandy loam
Lot 16: Strong brown sand subsoil



Old Fort Erie
Area 1
Unit 17A
West Wall
Excavators: Owen Harvey, Jesse Hume

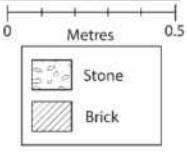


Old Fort Erie
Area 1
Unit 17A
East Wall
Excavators: Owen Harvey, Jesse Hume



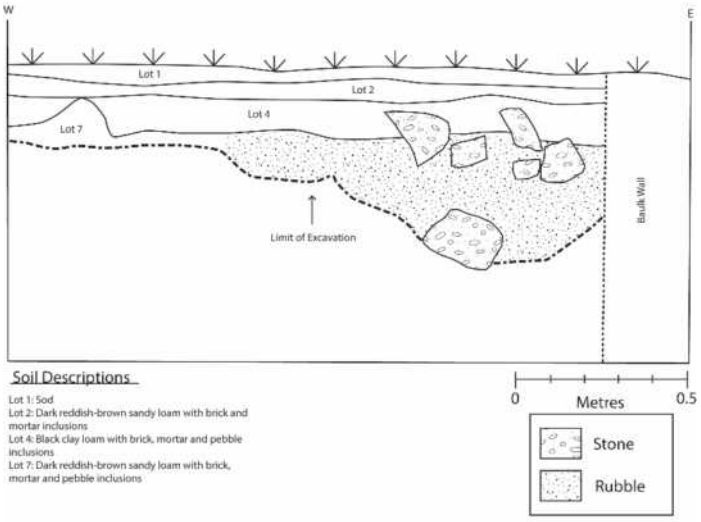
Soil Descriptions

Lot 1: Sod
Lot 2: Very dark grey sandy loam with brick, wood, pebble and modern inclusions
Lot 3: Clay lined depression
Lot 4: Interface for Lot 3
Lot 5: Very dark grey sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 6: Very dark grey clay loam with brick, charcoal, mortar and pebble inclusions
Lot 7: Floorboards
Lot 8: Very dark grey sandy loam with brick, mortar and cobble inclusions
Lot 11B: Dark reddish-brown sandy loam with brick, mortar and cobble inclusions
Lot 12: Very dark grey sandy loam with brick, charcoal and mortar inclusions
Lot 15: Dark reddish-brown sandy loam
Lot 16: Strong brown sand subsoil
Lot 18: Exterior wall
Lot 18A: Horizontal feature interface for exterior wall



AREA 1 - UNIT B

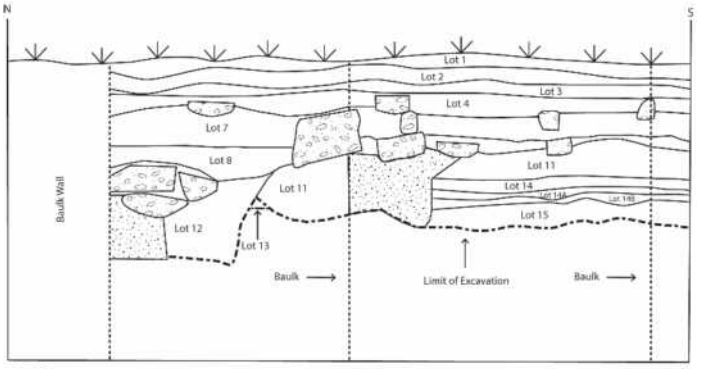
Old Fort Erie
Area 1
Unit 17B
North Wall
Excavators: Caitlyn Roe, Lauren Yates



Soil Descriptions

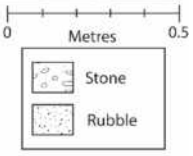
Lot 1: Sod
Lot 2: Dark reddish-brown sandy loam with brick and mortar inclusions
Lot 4: Black clay loam with brick, mortar and pebble inclusions
Lot 7: Dark reddish-brown sandy loam with brick, mortar and pebble inclusions

Old Fort Erie
Area 1
Unit 17B
East Wall
Excavators: Caitlyn Roe, Lauren Yates

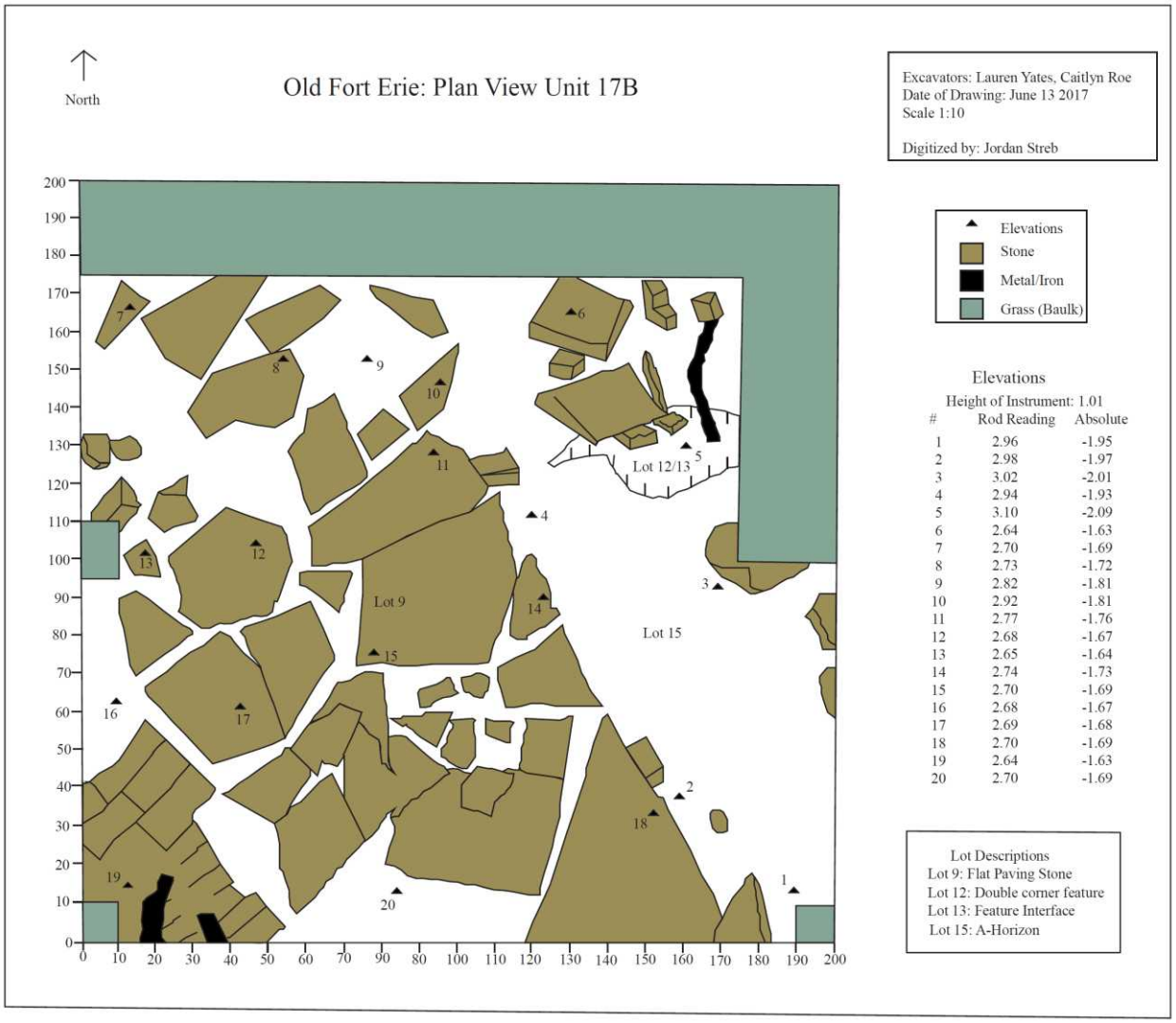


Soil Descriptions

Lot 1: Sod
Lot 2: Dark reddish-brown sandy loam with brick and mortar inclusions
Lot 3: Very dark grey clay loam
Lot 4: Black clay loam with brick, mortar and pebble inclusions
Lot 7: Dark reddish-brown sandy loam with brick, mortar and pebble inclusions
Lot 8: Brownish black sandy loam with brick, charcoal and mortar inclusions
Lot 11: Very dark greyish-brown loam with charcoal inclusions
Lot 12: Very dark greyish-brown loam with brick and mortar inclusions
Lot 13: Very dark greyish-brown loam with brick and mortar inclusions
Lot 14: Very dark greyish-brown sandy loam with charcoal inclusions
Lot 15: A-Horizon

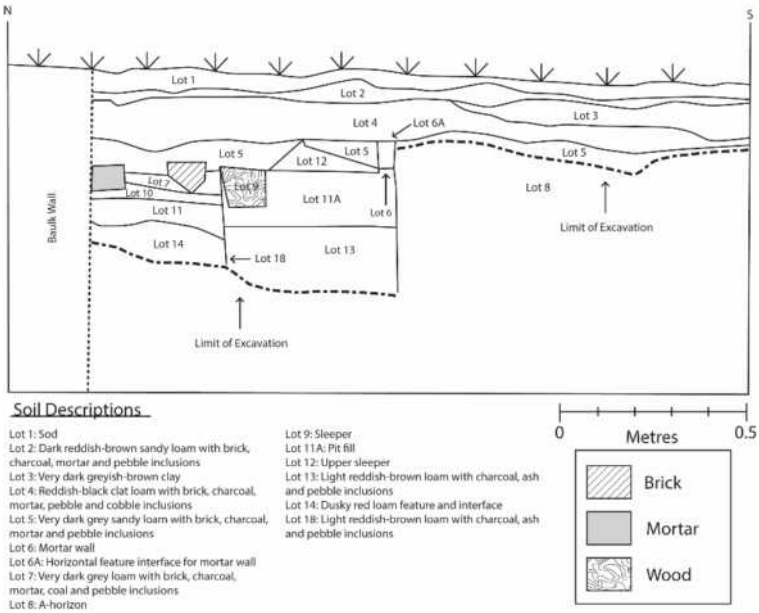


AREA 1 - UNIT B


North
Old Fort Erie: Plan View Unit 17B
Excavators: Lauren Yates, Caitlyn Roe
Date of Drawing: June 13 2017
Scale 1:10
Digitized by: Jordan Streb
Elevations
Stone
Metal/Iron
Grass (Baulk)
Lot 9
Lot 12/13
Lot 15
Elevations
Height of Instrument: 1.01
Rod Reading Absolute
1 2.96 -1.95
2 2.98 -1.97
3 3.02 -2.01
4 2.94 -1.93
5 3.10 -2.09
6 2.64 -1.63
7 2.70 -1.69
8 2.73 -1.72
9 2.82 -1.81
10 2.92 -1.81
11 2.77 -1.76
12 2.68 -1.67
13 2.65 -1.64
14 2.74 -1.73
15 2.70 -1.69
16 2.68 -1.67
17 2.69 -1.68
18 2.70 -1.69
19 2.64 -1.63
20 2.70 -1.69
Lot Descriptions
Lot 9: Flat Paving Stone
Lot 12: Double corner feature
Lot 13: Feature Interface
Lot 15: A-Horizon

AREA 1 - UNIT C

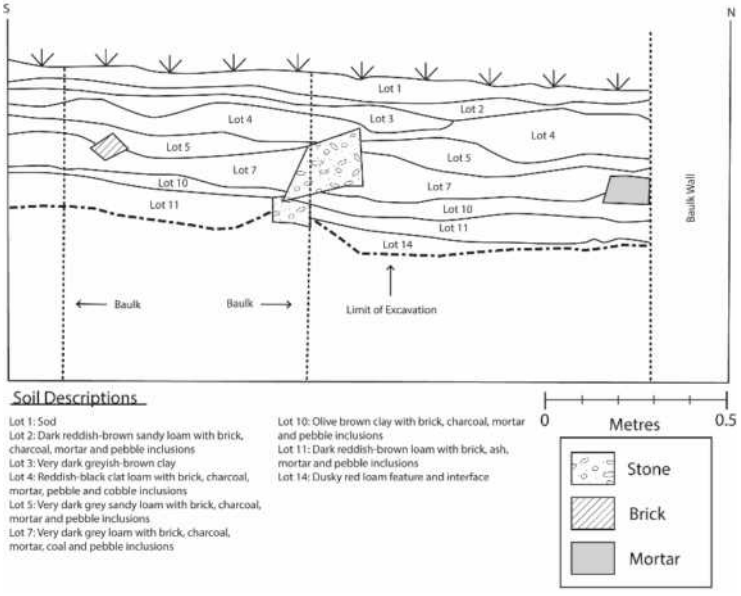
Old Fort Erie
Area 1
Unit 17C
North Wall
Excavators: Simonetta Pallotta, Colleen Tamblyn



Soil Descriptions

Lot 1: Sod
Lot 2: Dark reddish-brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 3: Very dark greyish-brown clay
Lot 4: Reddish-black clat loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 5: Very dark grey sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 6: Mortar wall
Lot 6A: Horizontal feature interface for mortar wall
Lot 7: Very dark grey loam with brick, charcoal, mortar, coal and pebble inclusions
Lot 8: A-horizon
Lot 9: Sleeper
Lot 11A: Pit fill
Lot 12: Upper sleeper
Lot 13: Light reddish-brown loam with charcoal, ash and pebble inclusions
Lot 14: Dusky red loam feature and interface
Lot 18: Light reddish-brown loam with charcoal, ash and pebble inclusions

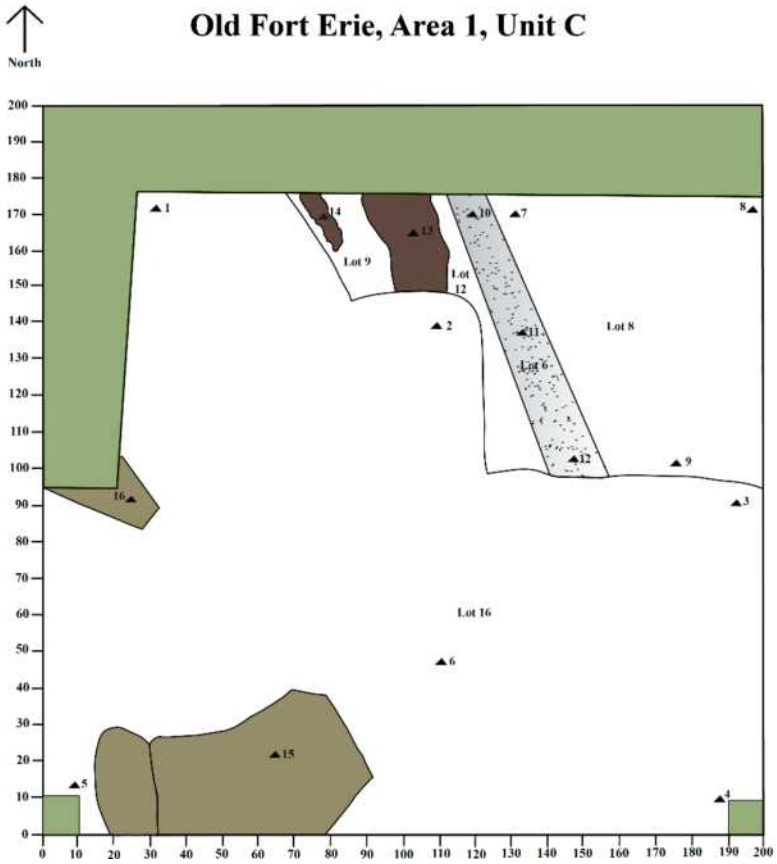
Old Fort Erie
Area 1
Unit 17C
West Wall
Excavators: Simonetta Pallotta, Colleen Tamblyn



Soil Descriptions

Lot 1: Sod
Lot 2: Dark reddish-brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 3: Very dark greyish-brown clay
Lot 4: Reddish-black clat loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 5: Very dark grey sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 7: Very dark grey loam with brick, charcoal, mortar, coal and pebble inclusions
Lot 10: Olive brown clay with brick, charcoal, mortar and pebble inclusions
Lot 11: Dark reddish-brown loam with brick, ash, mortar and pebble inclusions
Lot 14: Dusky red loam feature and interface

AREA 1 - UNIT C



Excavators: Simonetta Pallotta, Colleen Tamblyn
Date of Drawing: June 13 2017
Scale 1:10

Digitized by: Carli Perri

Elevations
Mortar
Stone
Grass (Baulk)
Sleeper Trench

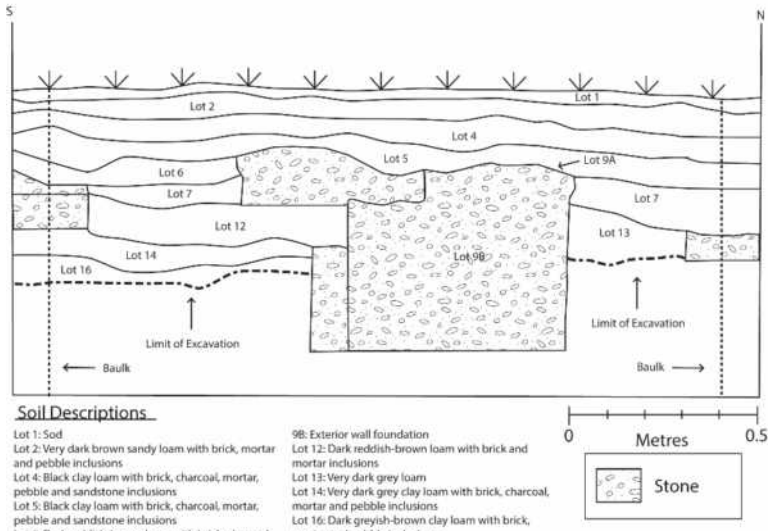
Elevations
Height of Instrument: 1.01

#	Rod Reading	Absolute
1.	3.05	-2.04
2.	3.17	-2.16
3.	3.00	-1.99
4.	3.01	-2.00
5.	2.95	-1.94
6.	3.01	-2.00
7.	2.77	-1.76
8.	2.82	-1.81
9.	2.83	-1.82
10.	2.78	-1.77
11.	2.80	-1.79
12.	2.80	-1.79
13.	2.82	-1.81
14.	2.90	-1.89
15.	2.71	-1.70
16.	2.65	-1.64

Lot Descriptions
Lot 6: Mortar Line (Exterior Wall)
Lot 8: Dark Exterior
Lot 9: Sleepers
Lot 12: Upper Sleeper (Burnt)
Lot 16: A-Horizon

AREA 1 - UNIT D

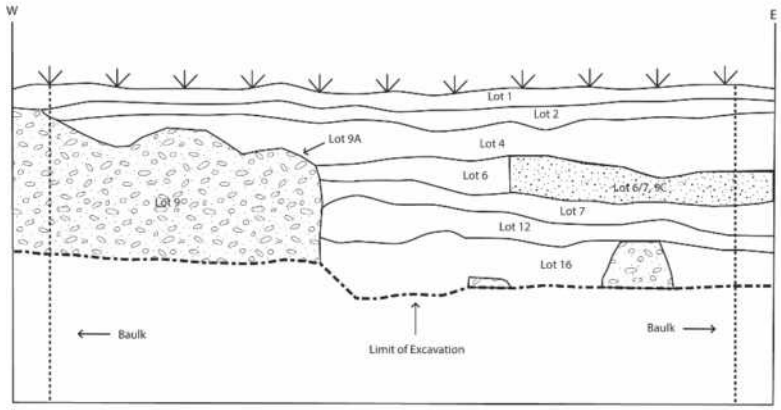
Old Fort Erie
Area 1
Unit 17D
West Wall
Excavators: Graham Costain, Brooke Harrison



Soil Descriptions

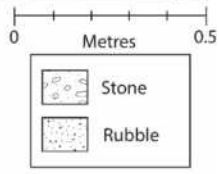
Lot 1: Sod
Lot 2: Very dark brown sandy loam with brick, mortar and pebble inclusions
Lot 4: Black clay loam with brick, charcoal, mortar, pebble and sandstone inclusions
Lot 5: Black clay loam with brick, charcoal, mortar, pebble and sandstone inclusions
Lot 6: Dark reddish-brown loam with brick, charcoal and mortar inclusions
Lot 7: Black clay loam with brick, charcoal, mortar and pebble inclusions
Lot 9A: Horizontal feature interface for exterior wall foundation
9B: Exterior wall foundation
Lot 12: Dark reddish-brown loam with brick and mortar inclusions
Lot 13: Very dark grey loam
Lot 14: Very dark grey clay loam with brick, charcoal, mortar and pebble inclusions
Lot 16: Dark greyish-brown clay loam with brick, mortar and pebble inclusions

Old Fort Erie
Area 1
Unit 17D
South Wall
Excavators: Graham Costain, Brooke Harrison



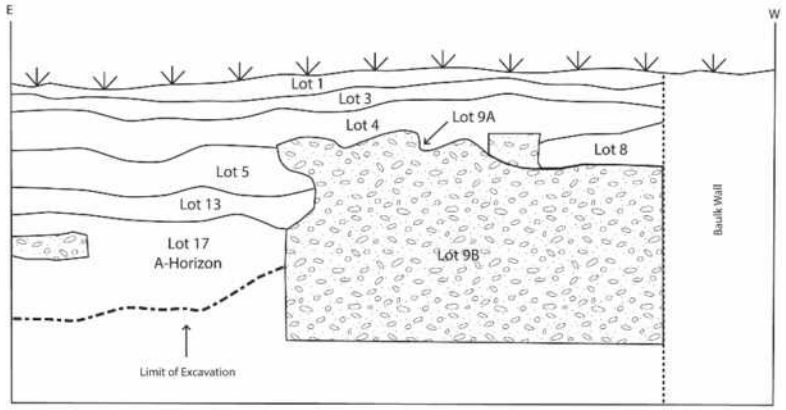
Soil Descriptions

Lot 1: Sod
Lot 2: Very dark brown sandy loam with brick, mortar and pebble inclusions
Lot 4: Black clay loam with brick, charcoal, mortar, pebble and sandstone inclusions
Lot 6: Dark reddish-brown loam with brick, charcoal and mortar inclusions
Lot 7: Black clay loam with brick, charcoal, mortar and pebble inclusions
Lot 9: Forge foundation
Lot 9A: Horizontal feature interface for forge foundation
Lot 9C: Rubble
Lot 12: Dark reddish-brown loam with brick and mortar inclusions
Lot 16: Dark greyish-brown clay loam with brick, mortar and pebble inclusions



AREA 1 - UNIT D

Old Fort Erie
Area 1
Unit 17D
North Wall
Excavators: Graham Costain, Brooke Harrison

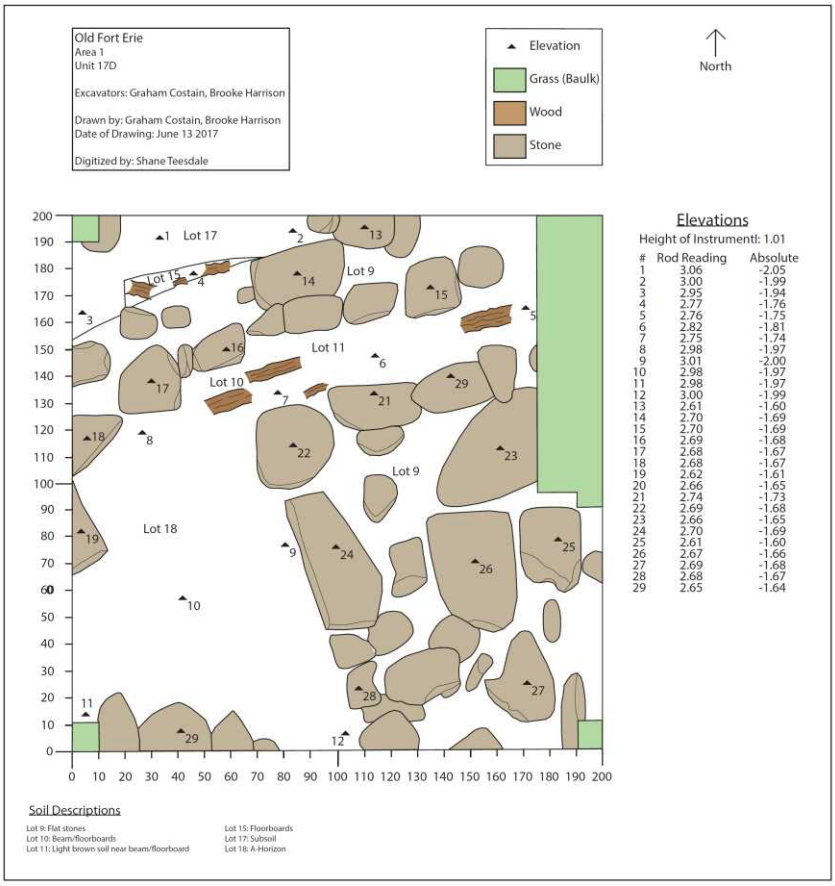


Soil Descriptions

Lot 1: Sod
Lot 3: Black clay loam with brick inclusions
Lot 4: Black clay loam with brick, charcoal, mortar, pebble and sandstone inclusions
Lot 5: Black clay loam with brick, charcoal, mortar, pebble and sandstone inclusions
Lot 8: Black loam with brick and mortar inclusions
Lot 9A: Horizontal feature interface for wall foundation
Lot 9B: Exterior wall foundation
Lot 13: Very dark grey loam
Lot 17: A-Horizon

0 Metres 0.5

Stone



Elevations

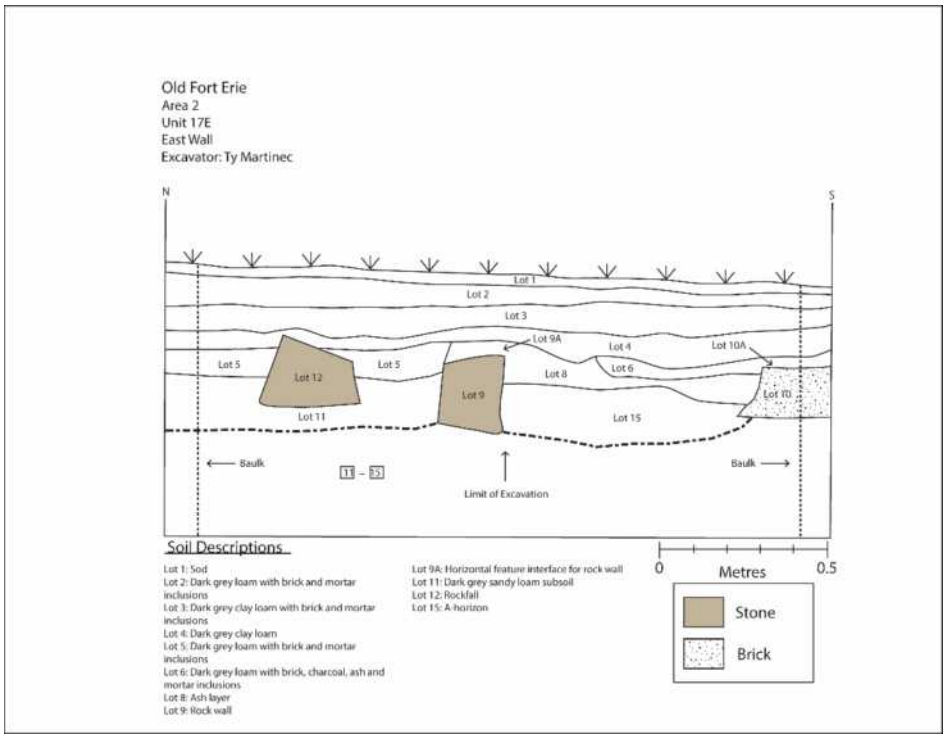
Height of Instrument: 1.01

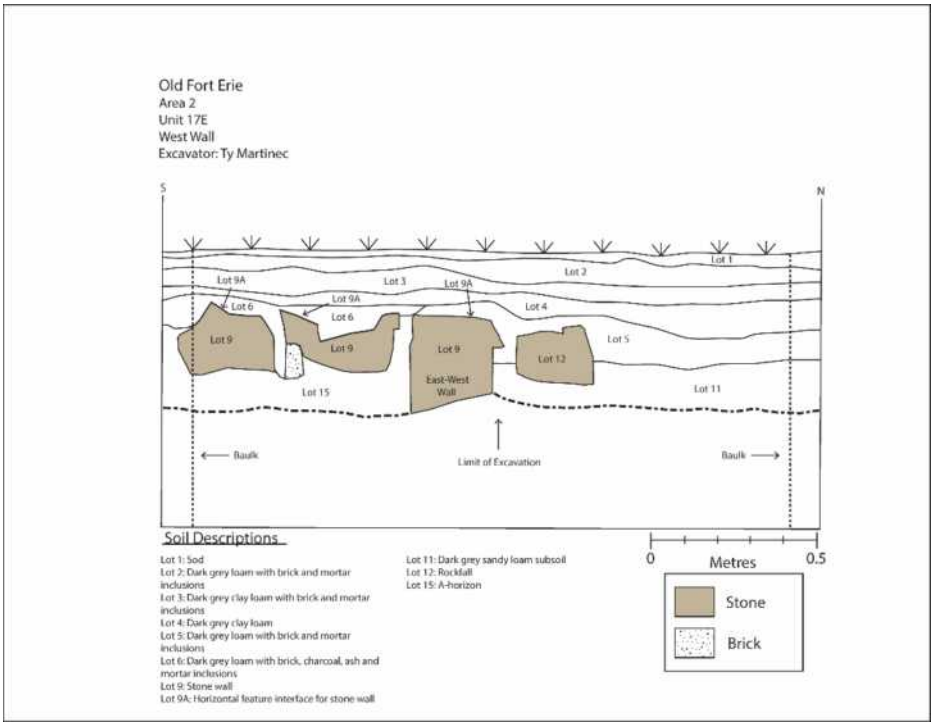
#	Rod Reading	Absolute
1	3.06	-2.05
2	3.00	-1.99
3	2.95	-1.94
4	2.77	-1.76
5	2.76	-1.75
6	2.82	-1.81
7	2.75	-1.74
8	2.98	-1.97
9	3.01	-2.00
10	2.98	-1.97
11	2.98	-1.97
12	3.00	-1.99
13	2.61	-1.60
14	2.70	-1.69
15	2.70	-1.69
16	2.69	-1.68
17	2.68	-1.67
18	2.68	-1.67
19	2.62	-1.61
20	2.66	-1.65
21	2.74	-1.73
22	2.69	-1.68
23	2.66	-1.65
24	2.70	-1.69
25	2.61	-1.60
26	2.67	-1.66
27	2.69	-1.68
28	2.68	-1.67
29	2.65	-1.64

Soil Descriptions

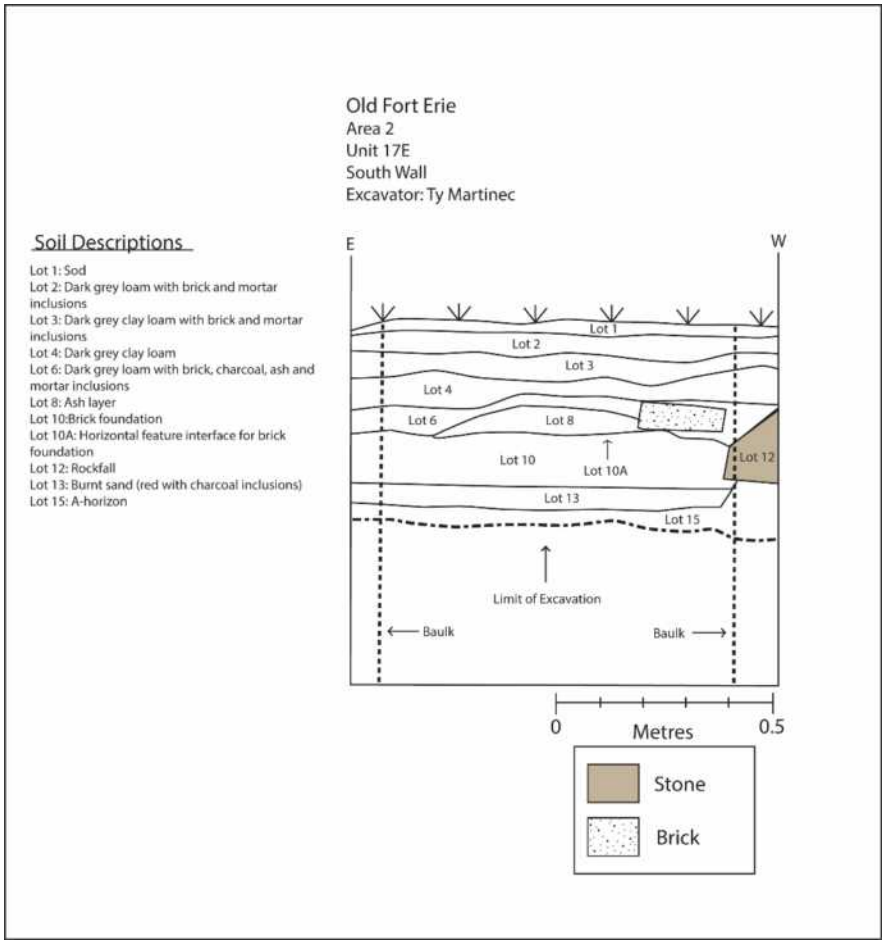
Lot 9: Flat stones
Lot 10: Beam/floorboards
Lot 11: Light brown soil near beam/floorboard
Lot 15: Floorboards
Lot 17: Subsoil
Lot 18: A-Horizon

AREA 2 - UNIT E

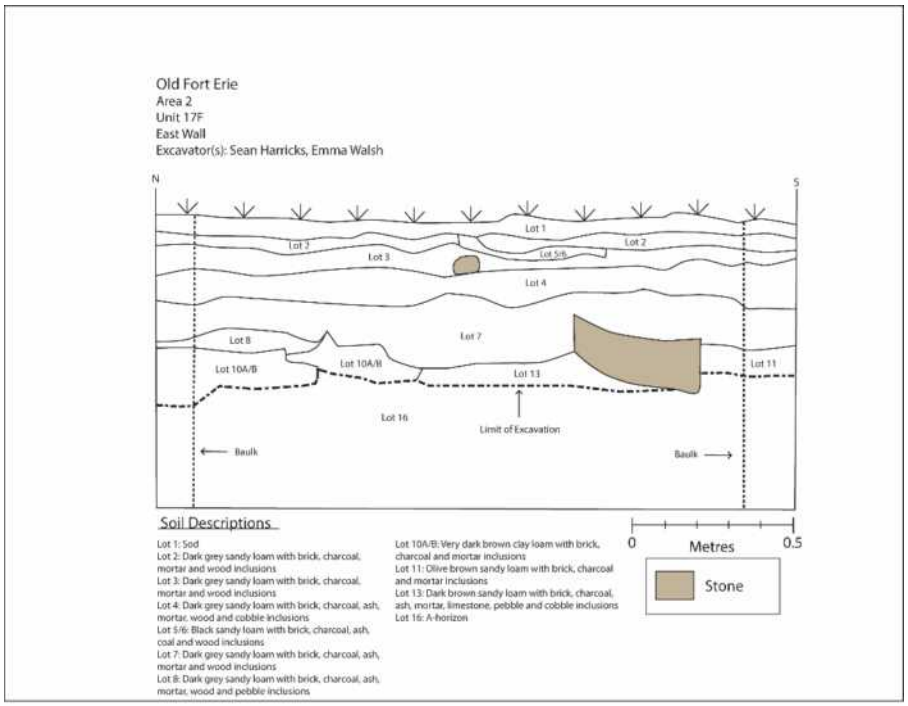

Old Fort Erie
Area 2
Unit 17E
East Wall
Excavator: Ty Martinec
N
S
Lot 1
Lot 2
Lot 3
Lot 9A
Lot 4
Lot 10A
Lot 5
Lot 12
Lot 5
Lot 8
Lot 6
Lot 9
Lot 10
Lot 11
Lot 15
Baulk
Baulk
Limit of Excavation
Soil Descriptions
Lot 1: Sod
Lot 2: Dark grey loam with brick and mortar inclusions
Lot 3: Dark grey clay loam with brick and mortar inclusions
Lot 4: Dark grey clay loam
Lot 5: Dark grey loam with brick and mortar inclusions
Lot 6: Dark grey loam with brick, charcoal, ash and mortar inclusions
Lot 8: Ash layer
Lot 9: Rock wall
Lot 9A: Horizontal feature interface for rock wall
Lot 11: Dark grey sandy loam subsoil
Lot 12: Rockfall
Lot 15: A-horizon
0
Metres
0.5
Stone
Brick

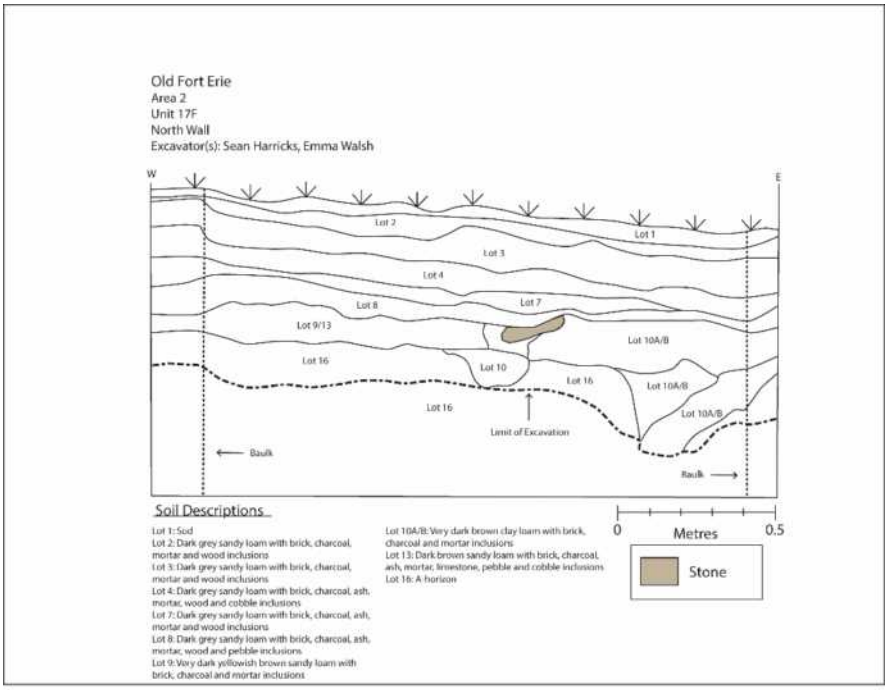

Old Fort Erie
Area 2
Unit 17E
West Wall
Excavator: Ty Martinec
S
N
Lot 1
Lot 2
Lot 9A
Lot 3
Lot 9A
Lot 9A
Lot 6
Lot 6
Lot 4
Lot 9
Lot 9
Lot 9
Lot 5
Lot 12
East-West Wall
Lot 15
Lot 11
Baulk
Limit of Excavation
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark grey loam with brick and mortar inclusions
Lot 3: Dark grey clay loam with brick and mortar inclusions
Lot 4: Dark grey clay loam
Lot 5: Dark grey loam with brick and mortar inclusions
Lot 6: Dark grey loam with brick, charcoal, ash and mortar inclusions
Lot 9: Stone wall
Lot 9A: Horizontal feature interface for stone wall
Lot 11: Dark grey sandy loam subsoil
Lot 12: Rockfall
Lot 15: A-horizon
0
Metres
0.5
Stone
Brick

AREA 2 - UNIT E

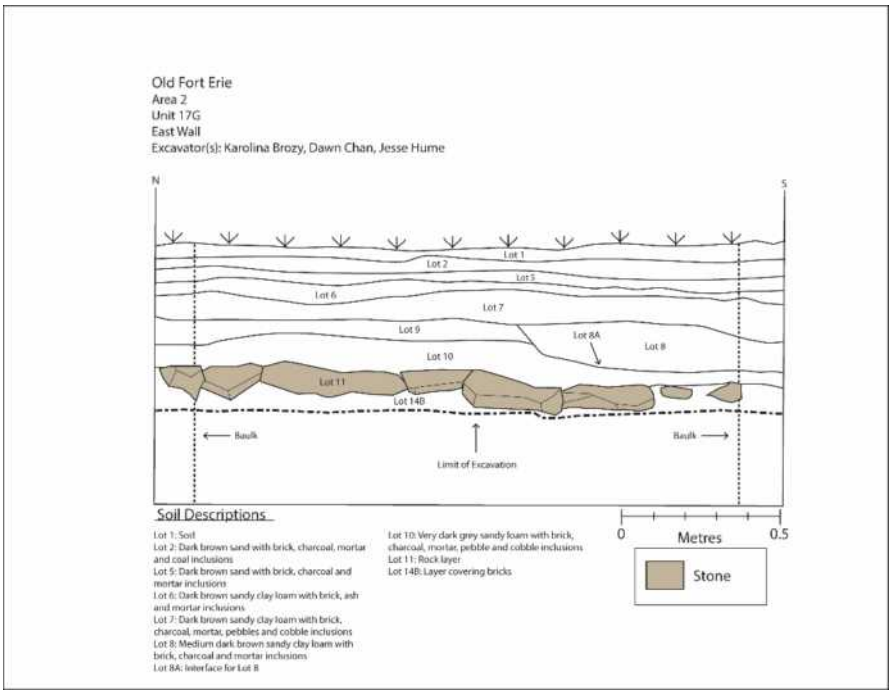

Old Fort Erie
Area 2
Unit 17E
South Wall
Excavator: Ty Martinec
Soil Descriptions
Lot 1: Sod
Lot 2: Dark grey loam with brick and mortar inclusions
Lot 3: Dark grey clay loam with brick and mortar inclusions
Lot 4: Dark grey clay loam
Lot 6: Dark grey loam with brick, charcoal, ash and mortar inclusions
Lot 8: Ash layer
Lot 10:Brick foundation
Lot 10A: Horizontal feature interface for brick foundation
Lot 12: Rockfall
Lot 13: Burnt sand (red with charcoal inclusions)
Lot 15: A-horizon
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Lot 6
Lot 8
Lot 10
Lot 10A
Lot 12
Lot 13
Lot 15
Limit of Excavation
Baulk
Baulk
0
Metres
0.5
Stone
Brick

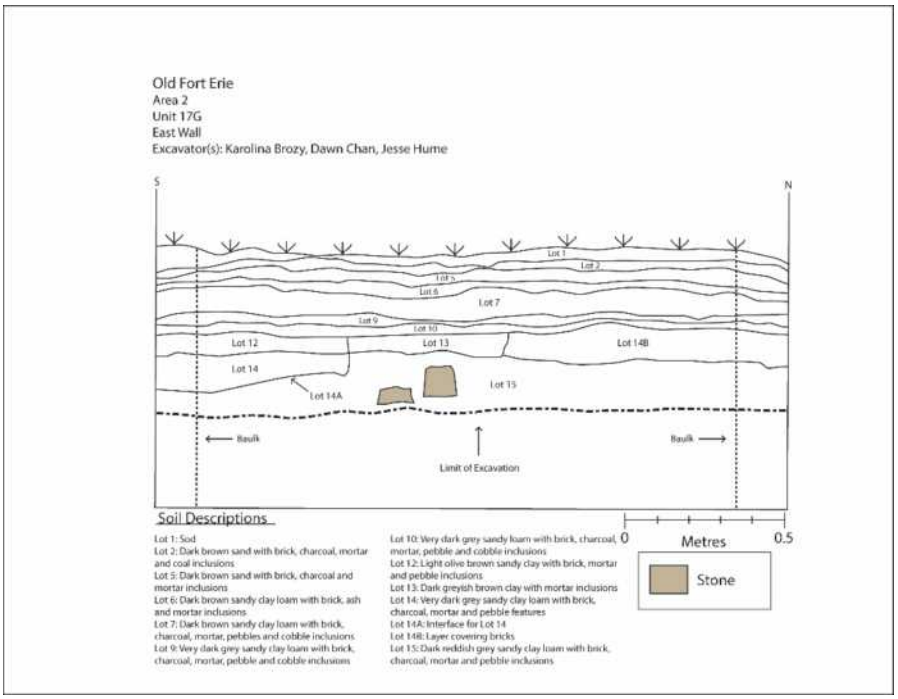
AREA 2 - UNIT F


Old Fort Erie
Area 2
Unit 17F
East Wall
Excavator(s): Sean Harricks, Emma Walsh
N
S
Lot 1
Lot 2
Lot 3
Lot 5/6
Lot 4
Lot 8
Lot 7
Lot 10A/B
Lot 10A/B
Lot 13
Lot 11
Lot 16
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark grey sandy loam with brick, charcoal, mortar and wood inclusions
Lot 3: Dark grey sandy loam with brick, charcoal, mortar and wood inclusions
Lot 4: Dark grey sandy loam with brick, charcoal, ash, mortar, wood and cobble inclusions
Lot 5/6: Black sandy loam with brick, charcoal, ash, coal and wood inclusions
Lot 7: Dark grey sandy loam with brick, charcoal, ash, mortar and wood inclusions
Lot 8: Dark grey sandy loam with brick, charcoal, ash, mortar, wood and pebble inclusions
Lot 10A/B: Very dark brown clay loam with brick, charcoal and mortar inclusions
Lot 11: Olive brown sandy loam with brick, charcoal and mortar inclusions
Lot 13: Dark brown sandy loam with brick, charcoal, ash, mortar, limestone, pebble and cobble inclusions
Lot 16: A-horizon
0
Metres
0.5
Stone

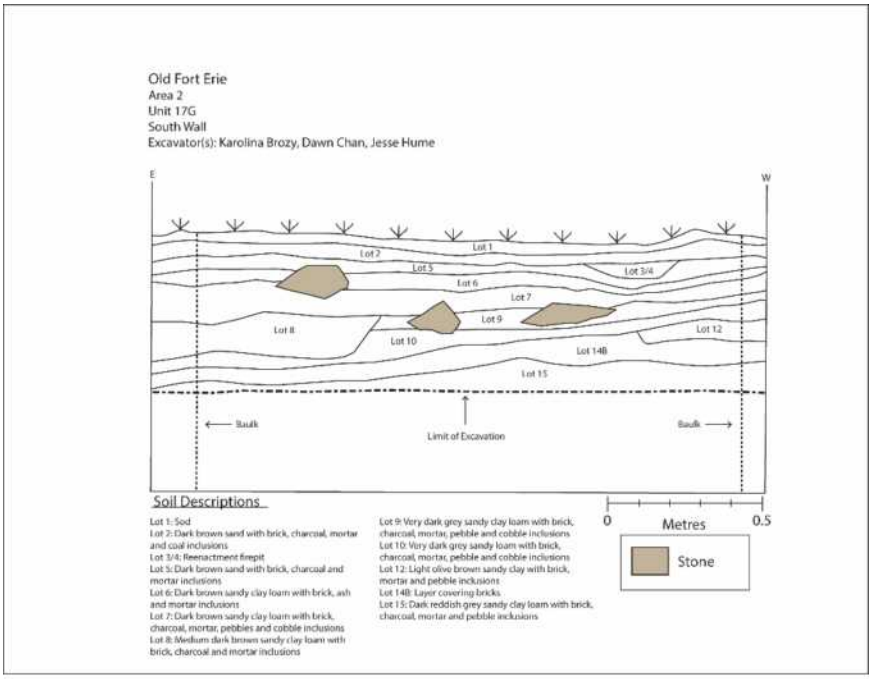

Old Fort Erie
Area 2
Unit 17F
North Wall
Excavator(s): Sean Harricks, Emma Walsh
W
E
Lot 2
Lot 1
Lot 3
Lot 4
Lot 8
Lot 7
Lot 9/13
Lot 10A/B
Lot 16
Lot 10
Lot 16
Lot 10A/B
Lot 16
Lot 10A/B
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark grey sandy loam with brick, charcoal, mortar and wood inclusions
Lot 3: Dark grey sandy loam with brick, charcoal, mortar and wood inclusions
Lot 4: Dark grey sandy loam with brick, charcoal, ash, mortar, wood and cobble inclusions
Lot 7: Dark grey sandy loam with brick, charcoal, ash, mortar and wood inclusions
Lot 8: Dark grey sandy loam with brick, charcoal, ash, mortar, wood and pebble inclusions
Lot 9: Very dark yellowish brown sandy loam with brick, charcoal and mortar inclusions
Lot 10A/B: Very dark brown clay loam with brick, charcoal and mortar inclusions
Lot 13: Dark brown sandy loam with brick, charcoal, ash, mortar, limestone, pebble and cobble inclusions
Lot 16: A-horizon
0
Metres
0.5
Stone

AREA 2 - UNIT G

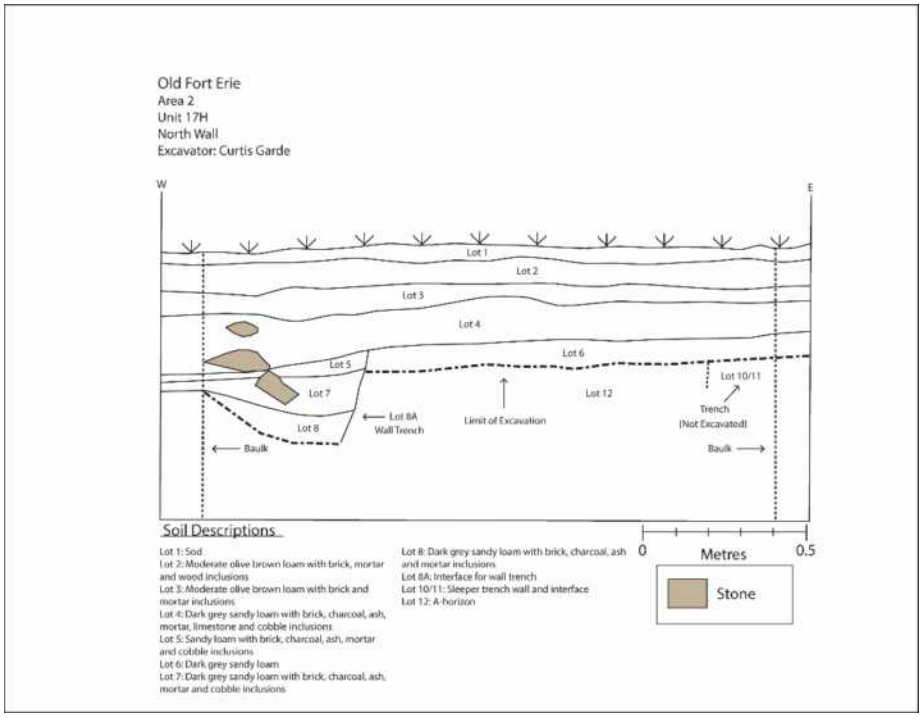

Old Fort Erie
Area 2
Unit 17G
East Wall
Excavator(s): Karolina Brozy, Dawn Chan, Jesse Hume
N
S
Lot 1
Lot 2
Lot 5
Lot 6
Lot 7
Lot 9
Lot 8A
Lot 8
Lot 10
Lot 11
Lot 14B
Baulk
Baulk
Limit of Excavation
Soil Descriptions
Lot 1: Soil
Lot 2: Dark brown sand with brick, charcoal, mortar and coal inclusions
Lot 5: Dark brown sand with brick, charcoal and mortar inclusions
Lot 6: Dark brown sandy clay loam with brick, ash and mortar inclusions
Lot 7: Dark brown sandy clay loam with brick, charcoal, mortar, pebbles and cobble inclusions
Lot 8: Medium dark brown sandy clay loam with brick, charcoal and mortar inclusions
Lot 8A: Interface for Lot 8
Lot 10: Very dark grey sandy loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 11: Rock layer
Lot 14B: Layer covering bricks
0
Metres
0.5
Stone

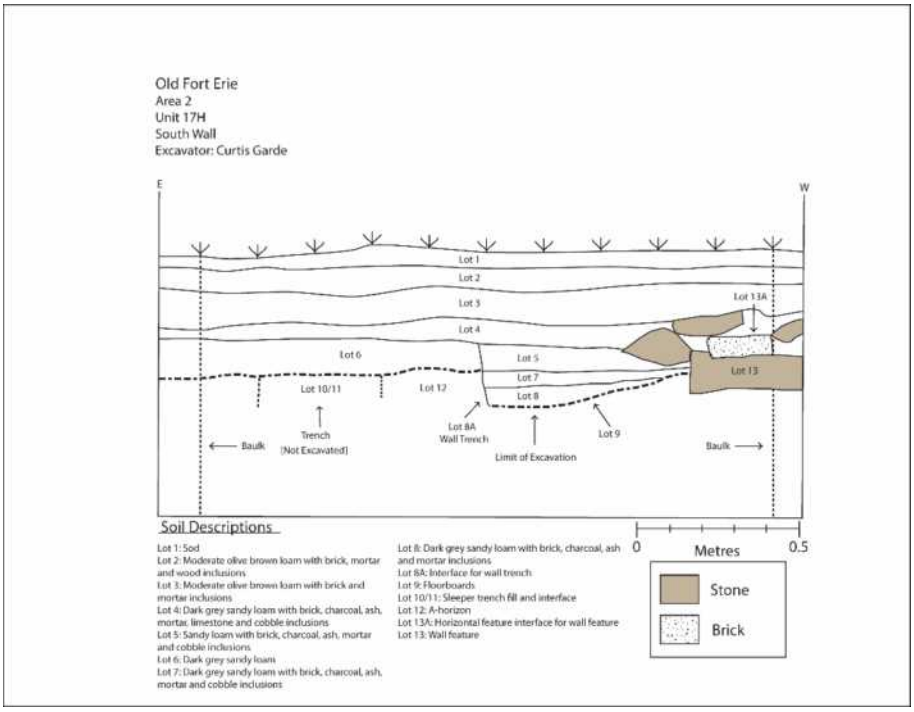

Old Fort Erie
Area 2
Unit 17G
East Wall
Excavator(s): Karolina Brozy, Dawn Chan, Jesse Hume
S
N
Lot 1
Lot 2
Lot 5
Lot 6
Lot 7
Lot 9
Lot 10
Lot 12
Lot 13
Lot 14B
Lot 14
Lot 14A
Lot 15
Baulk
Baulk
Limit of Excavation
Soil Descriptions
Lot 1: Sod
Lot 2: Dark brown sand with brick, charcoal, mortar and coal inclusions
Lot 5: Dark brown sand with brick, charcoal and mortar inclusions
Lot 6: Dark brown sandy clay loam with brick, ash and mortar inclusions
Lot 7: Dark brown sandy clay loam with brick, charcoal, mortar, pebbles and cobble inclusions
Lot 9: Very dark grey sandy clay loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 10: Very dark grey sandy loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 12: Light olive brown sandy clay with brick, mortar and pebble inclusions
Lot 13: Dark greyish brown clay with mortar inclusions
Lot 14: Very dark grey sandy clay loam with brick, charcoal, mortar and pebble features
Lot 14A: Interface for Lot 14
Lot 14B: Layer covering bricks
Lot 15: Dark reddish grey sandy clay loam with brick, charcoal, mortar and pebble inclusions
0
Metres
0.5
Stone

AREA 2 - UNIT G

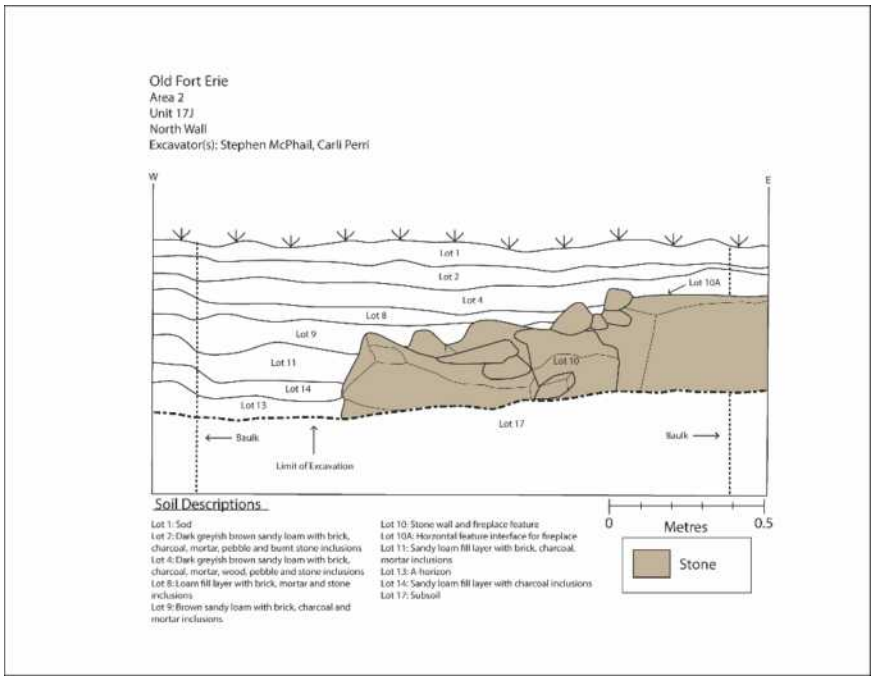

Old Fort Erie
Area 2
Unit 17G
South Wall
Excavator(s): Karolina Brozy, Dawn Chan, Jesse Hume
E
W
Lot 1
Lot 2
Lot 3
Lot 3/4
Lot 6
Lot 7
Lot 8
Lot 9
Lot 10
Lot 12
Lot 14B
Lot 15
Baulk
Limit of Excavation
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark brown sand with brick, charcoal, mortar and coal inclusions
Lot 3/4: Reenactment firepit
Lot 5: Dark brown sand with brick, charcoal and mortar inclusions
Lot 6: Dark brown sandy clay loam with brick, ash and mortar inclusions
Lot 7: Dark brown sandy clay loam with brick, charcoal, mortar, pebbles and cobble inclusions
Lot 8: Medium dark brown sandy clay loam with brick, charcoal and mortar inclusions
Lot 9: Very dark grey sandy clay loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 10: Very dark grey sandy loam with brick, charcoal, mortar, pebble and cobble inclusions
Lot 12: Light olive brown sandy clay with brick, mortar and pebble inclusions
Lot 14B: Layer covering bricks
Lot 15: Dark reddish grey sandy clay loam with brick, charcoal, mortar and pebble inclusions
0
Metres
0.5
Stone

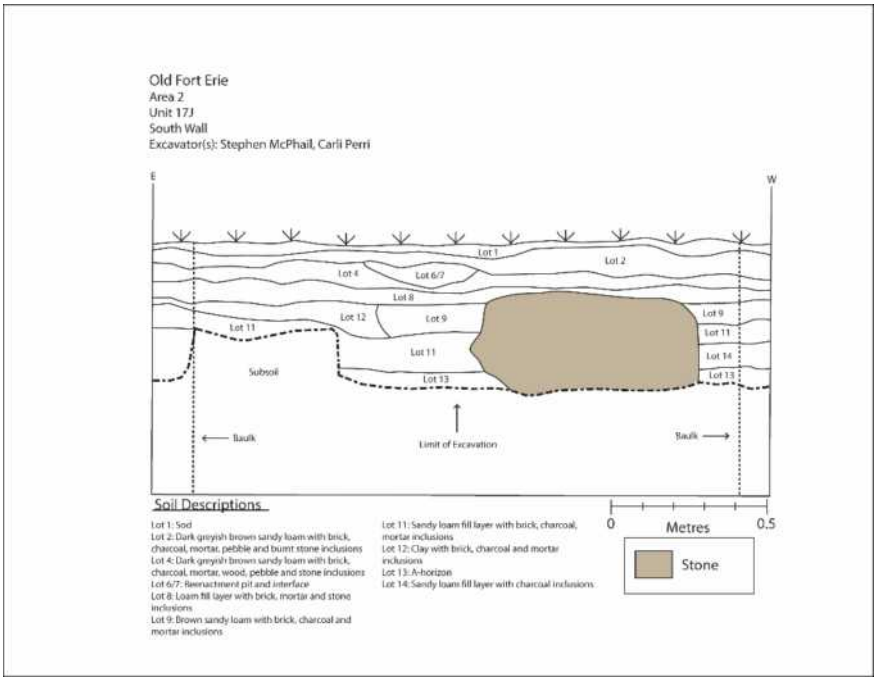
AREA 2 - UNIT H


Old Fort Erie
Area 2
Unit 17H
North Wall
Excavator: Curtis Garde
W
E
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 6
Lot 7
Lot 8
Lot 8A
Wall Trench
Limit of Excavation
Lot 10/11
Lot 12
Trench
(Not Excavated)
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Moderate olive brown loam with brick, mortar and wood inclusions
Lot 3: Moderate olive brown loam with brick and mortar inclusions
Lot 4: Dark grey sandy loam with brick, charcoal, ash, mortar, limestone and cobble inclusions
Lot 5: Sandy loam with brick, charcoal, ash, mortar and cobble inclusions
Lot 6: Dark grey sandy loam
Lot 7: Dark grey sandy loam with brick, charcoal, ash, mortar and cobble inclusions
Lot 8: Dark grey sandy loam with brick, charcoal, ash and mortar inclusions
Lot 8A: Interface for wall trench
Lot 10/11: Sleeper trench wall and interface
Lot 12: A-horizon
0
Metres
0.5
Stone

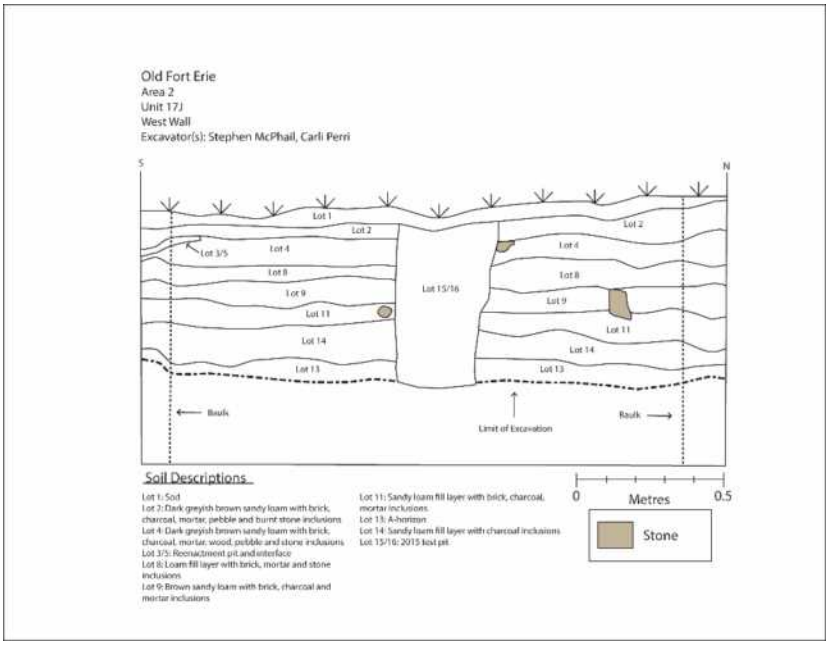

Old Fort Erie
Area 2
Unit 17H
South Wall
Excavator: Curtis Garde
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 6
Lot 7
Lot 8
Lot 8A
Wall Trench
Lot 9
Lot 10/11
Lot 12
Lot 13
Lot 13A
Trench
(Not Excavated)
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Moderate olive brown loam with brick, mortar and wood inclusions
Lot 3: Moderate olive brown loam with brick and mortar inclusions
Lot 4: Dark grey sandy loam with brick, charcoal, ash, mortar, limestone and cobble inclusions
Lot 5: Sandy loam with brick, charcoal, ash, mortar and cobble inclusions
Lot 6: Dark grey sandy loam
Lot 7: Dark grey sandy loam with brick, charcoal, ash, mortar and cobble inclusions
Lot 8: Dark grey sandy loam with brick, charcoal, ash and mortar inclusions
Lot 8A: Interface for wall trench
Lot 9: Floorboards
Lot 10/11: Sleeper trench fill and interface
Lot 12: A-horizon
Lot 13A: Horizontal feature interface for wall feature
Lot 13: Wall feature
0
Metres
0.5
Stone
Brick

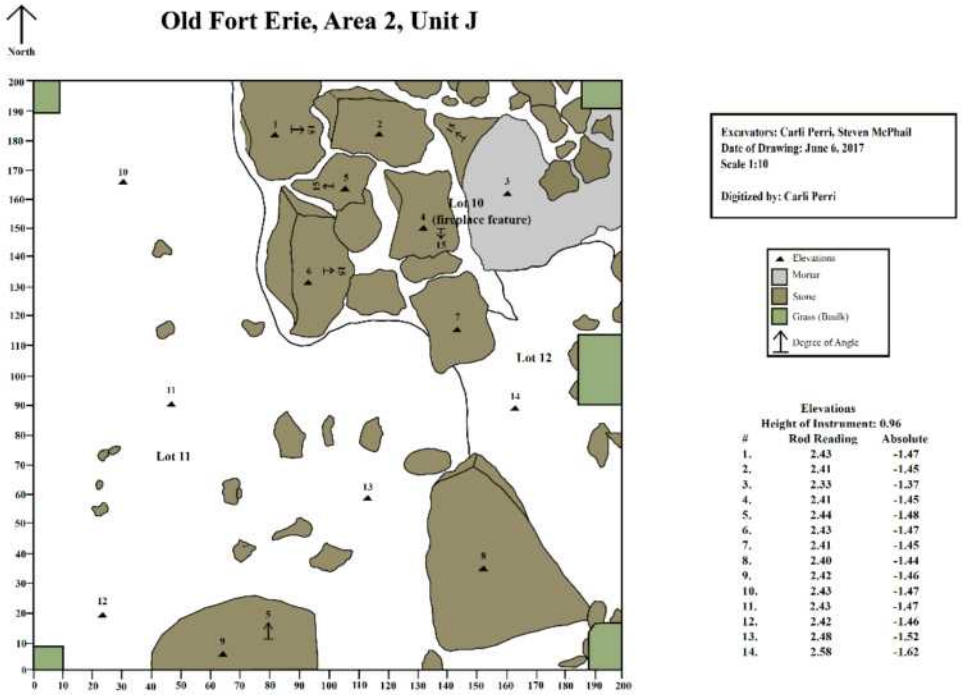
AREA 2 - UNIT J


Old Fort Erie
Area 2
Unit 17J
North Wall
Excavator(s): Stephen McPhail, Carli Perri
W
E
Lot 1
Lot 2
Lot 4
Lot 10A
Lot 8
Lot 9
Lot 10
Lot 11
Lot 14
Lot 13
Lot 17
Baulk
Baulk
Limit of Excavation
Soil Descriptions
Lot 1: Sod
Lot 2: Dark greyish brown sandy loam with brick, charcoal, mortar, pebble and burnt stone inclusions
Lot 4: Dark greyish brown sandy loam with brick, charcoal, mortar, wood, pebble and stone inclusions
Lot 8: Loam fill layer with brick, mortar and stone inclusions
Lot 9: Brown sandy loam with brick, charcoal and mortar inclusions
Lot 10: Stone wall and fireplace feature
Lot 10A: Horizontal feature interface for fireplace
Lot 11: Sandy loam fill layer with brick, charcoal, mortar inclusions
Lot 13: A-horizon
Lot 14: Sandy loam fill layer with charcoal inclusions
Lot 17: Subsoil
0
Metres
0.5
Stone


Old Fort Erie
Area 2
Unit 17J
South Wall
Excavator(s): Stephen McPhail, Carli Perri
E
W
Lot 1
Lot 2
Lot 4
Lot 6/7
Lot 8
Lot 12
Lot 9
Lot 9
Lot 11
Lot 11
Lot 11
Lot 14
Subsoil
Lot 13
Lot 13
Baulk
Limit of Excavation
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark greyish brown sandy loam with brick, charcoal, mortar, pebble and burnt stone inclusions
Lot 4: Dark greyish brown sandy loam with brick, charcoal, mortar, wood, pebble and stone inclusions
Lot 6/7: Reenactment pit and interface
Lot 8: Loam fill layer with brick, mortar and stone inclusions
Lot 9: Brown sandy loam with brick, charcoal and mortar inclusions
Lot 11: Sandy loam fill layer with brick, charcoal, mortar inclusions
Lot 12: Clay with brick, charcoal and mortar inclusions
Lot 13: A-horizon
Lot 14: Sandy loam fill layer with charcoal inclusions
0
Metres
0.5
Stone

AREA 2 - UNIT J

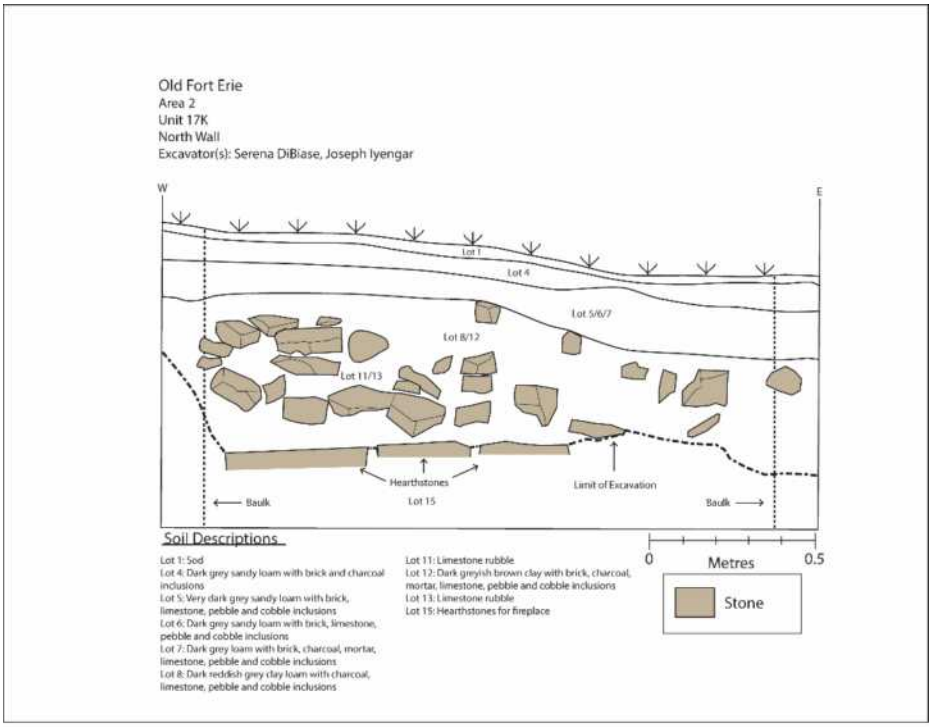


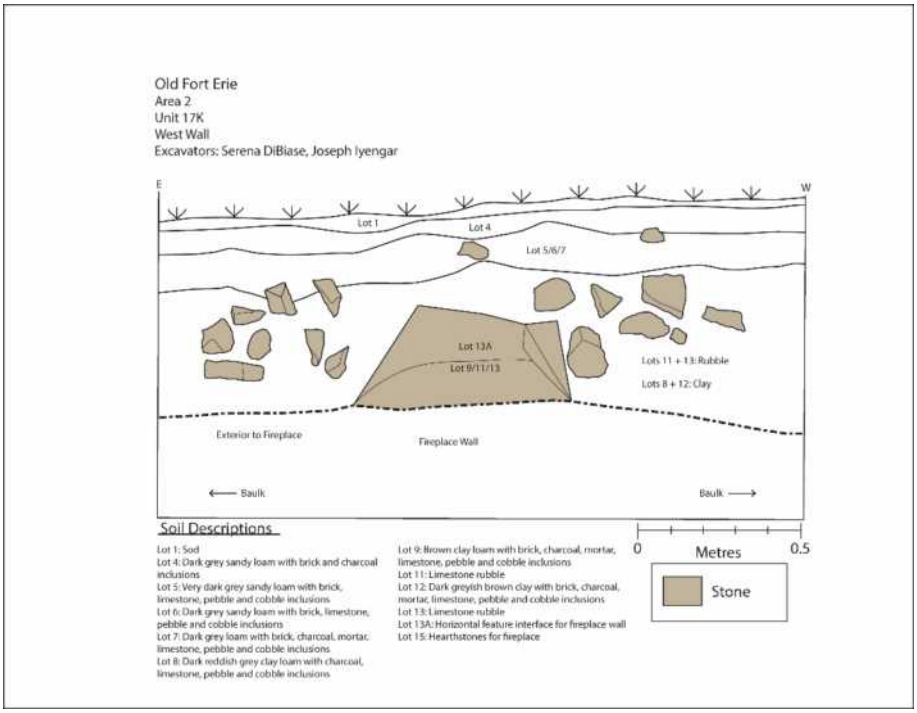


Elevations
Height of Instrument: 0.96

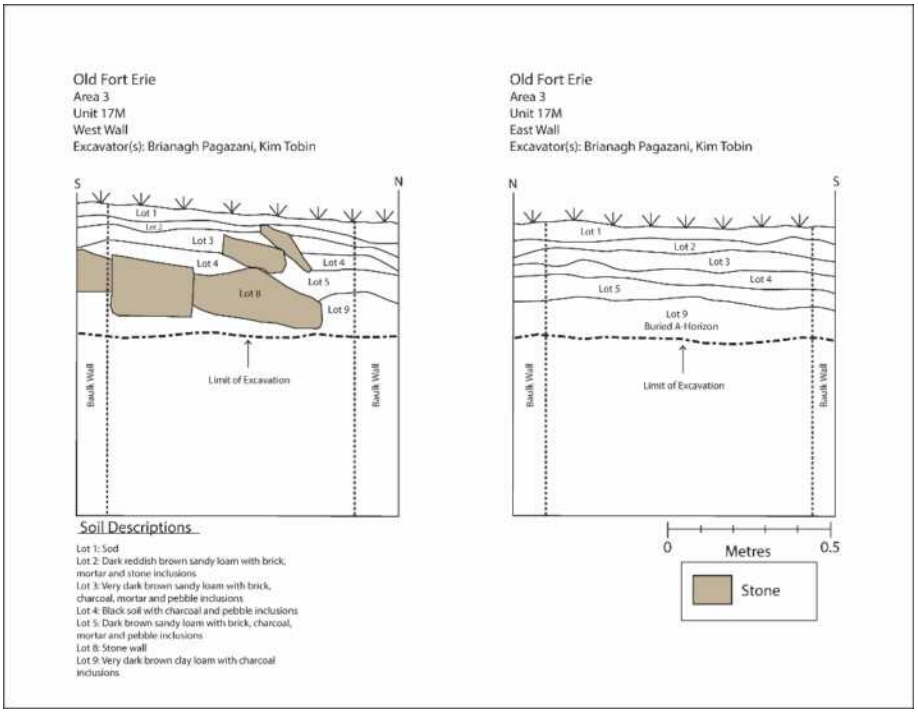
#	Rod Reading	Absolute
1.	2.43	-1.47
2.	2.41	-1.45
3.	2.33	-1.37
4.	2.41	-1.45
5.	2.44	-1.48
6.	2.43	-1.47
7.	2.41	-1.45
8.	2.40	-1.44
9.	2.42	-1.46
10.	2.43	-1.47
11.	2.43	-1.47
12.	2.42	-1.46
13.	2.48	-1.52
14.	2.58	-1.62

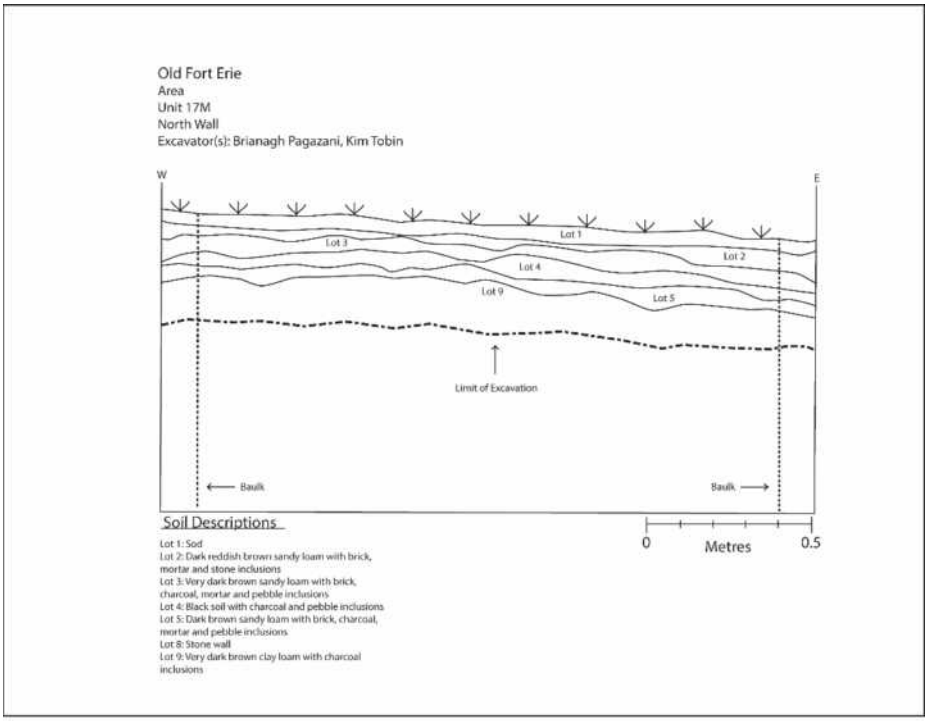
AREA 2 - UNIT K


Old Fort Erie
Area 2
Unit 17K
North Wall
Excavator(s): Serena DiBiase, Joseph Iyengar
W
E
Lot 1
Lot 4
Lot 5/6/7
Lot 8/12
Lot 11/13
Hearthstones
Lot 15
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 4: Dark grey sandy loam with brick and charcoal inclusions
Lot 5: Very dark grey sandy loam with brick, limestone, pebble and cobble inclusions
Lot 6: Dark grey sandy loam with brick, limestone, pebble and cobble inclusions
Lot 7: Dark grey loam with brick, charcoal, mortar, limestone, pebble and cobble inclusions
Lot 8: Dark reddish grey clay loam with charcoal, limestone, pebble and cobble inclusions
Lot 11: Limestone rubble
Lot 12: Dark greyish brown clay with brick, charcoal, mortar, limestone, pebble and cobble inclusions
Lot 13: Limestone rubble
Lot 15: Hearthstones for fireplace
0
Metres
0.5
Stone

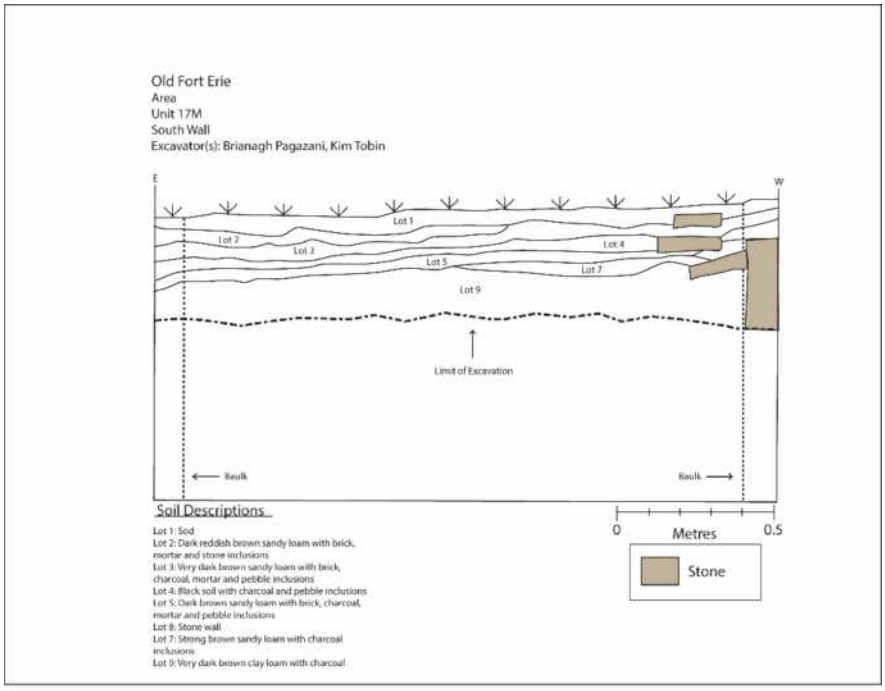

Old Fort Erie
Area 2
Unit 17K
West Wall
Excavators: Serena DiBiase, Joseph Iyengar
E
W
Lot 1
Lot 4
Lot 5/6/7
Lot 13A
Lot 9/11/13
Lots 11 + 13: Rubble
Lots 8 + 12: Clay
Exterior to Fireplace
Fireplace Wall
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 4: Dark grey sandy loam with brick and charcoal inclusions
Lot 5: Very dark grey sandy loam with brick, limestone, pebble and cobble inclusions
Lot 6: Dark grey sandy loam with brick, limestone, pebble and cobble inclusions
Lot 7: Dark grey loam with brick, charcoal, mortar, limestone, pebble and cobble inclusions
Lot 8: Dark reddish grey clay loam with charcoal, limestone, pebble and cobble inclusions
Lot 9: Brown clay loam with brick, charcoal, mortar, limestone, pebble and cobble inclusions
Lot 11: Limestone rubble
Lot 12: Dark greyish brown clay with brick, charcoal, mortar, limestone, pebble and cobble inclusions
Lot 13: Limestone rubble
Lot 13A: Horizontal feature interface for fireplace wall
Lot 15: Hearthstones for fireplace
0
Metres
0.5
Stone

AREA 3 - UNIT M

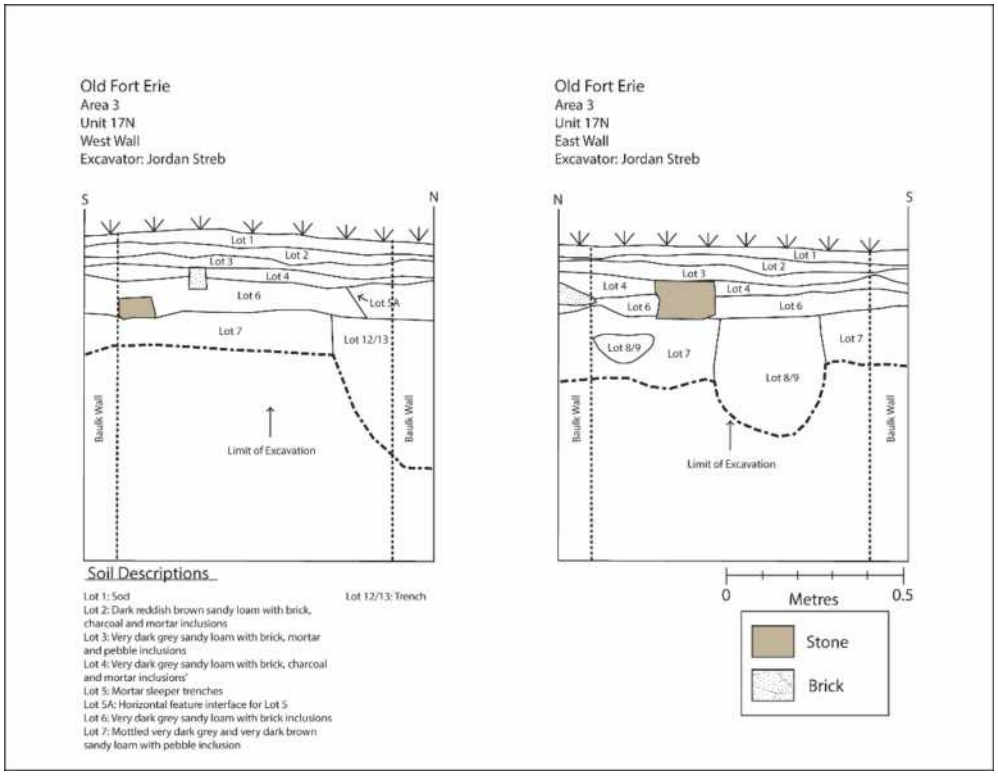

Old Fort Erie
Area 3
Unit 17M
West Wall
Excavator(s): Brianagh Pagazani, Kim Tobin
S
N
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 8
Lot 9
Limit of Excavation
Baulk Wall
Baulk Wall
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, mortar and stone inclusions
Lot 3: Very dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 4: Black soil with charcoal and pebble inclusions
Lot 5: Dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 8: Stone wall
Lot 9: Very dark brown clay loam with charcoal inclusions
Old Fort Erie
Area 3
Unit 17M
East Wall
Excavator(s): Brianagh Pagazani, Kim Tobin
N
S
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 9
Buried A-Horizon
Limit of Excavation
Baulk Wall
Baulk Wall
0
Metres
0.5
Stone

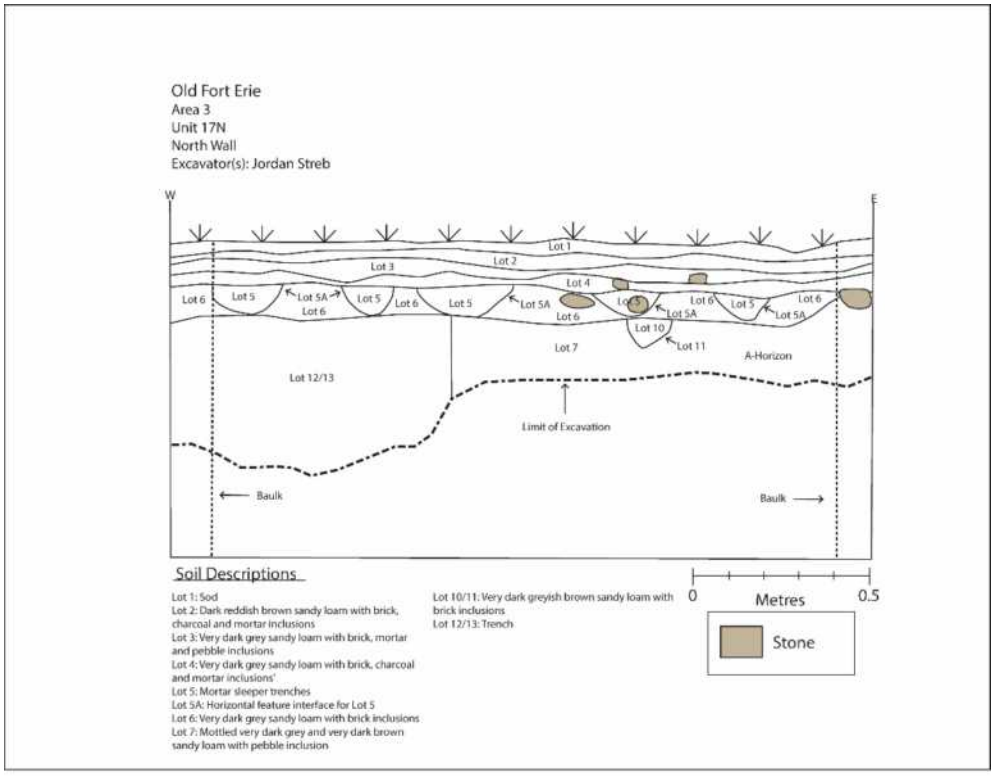

Old Fort Erie
Area
Unit 17M
North Wall
Excavator(s): Brianagh Pagazani, Kim Tobin
W
E
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 9
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, mortar and stone inclusions
Lot 3: Very dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 4: Black soil with charcoal and pebble inclusions
Lot 5: Dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 8: Stone wall
Lot 9: Very dark brown clay loam with charcoal inclusions
0
Metres
0.5

AREA 3 - UNIT M

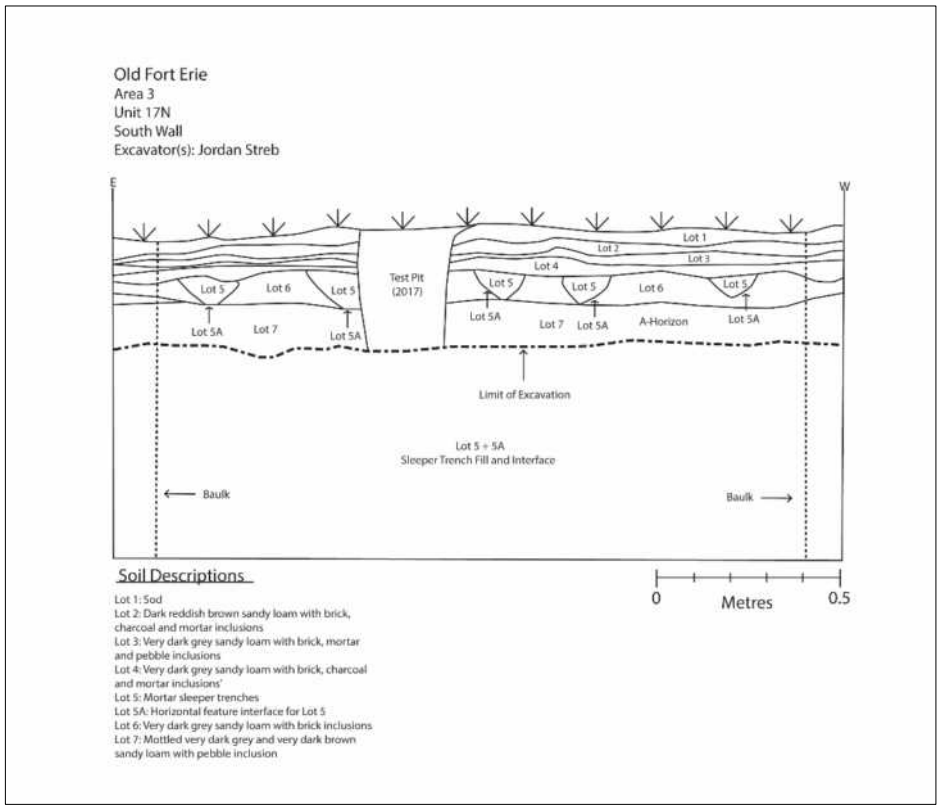

Old Fort Erie
Area
Unit 17M
South Wall
Excavator(s): Brianagh Pagazani, Kim Tobin
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 7
Lot 9
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, mortar and stone inclusions
Lot 3: Very dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 4: Black soil with charcoal and pebble inclusions
Lot 5: Dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 8: Stone wall
Lot 7: Strong brown sandy loam with charcoal inclusions
Lot 9: Very dark brown clay loam with charcoal
0
Metres
0.5
Stone

AREA 3 - UNIT N

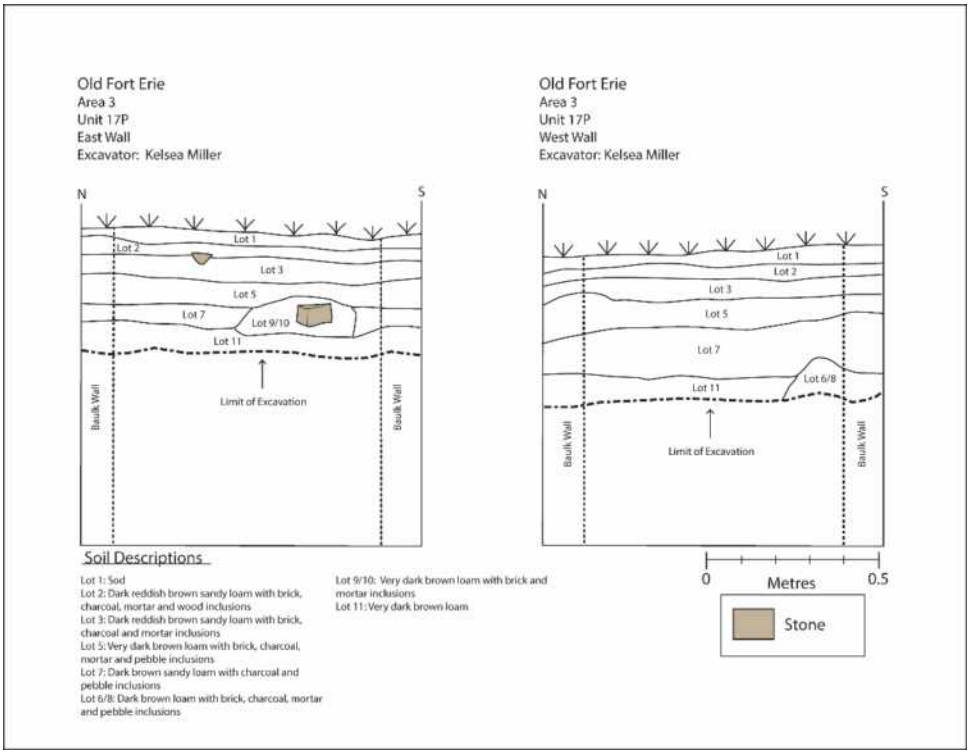

Old Fort Erie
Area 3
Unit 17N
West Wall
Excavator: Jordan Streb
S
N
Lot 1
Lot 2
Lot 3
Lot 4
Lot 6
Lot 5A
Lot 7
Lot 12/13
Baulk Wall
Baulk Wall
Limit of Excavation
Old Fort Erie
Area 3
Unit 17N
East Wall
Excavator: Jordan Streb
N
S
Lot 1
Lot 2
Lot 3
Lot 4
Lot 6
Lot 6
Lot 8/9
Lot 7
Lot 7
Lot 8/9
Baulk Wall
Baulk Wall
Limit of Excavation
0
Metres
0.5
Stone
Brick
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 3: Very dark grey sandy loam with brick, mortar and pebble inclusions
Lot 4: Very dark grey sandy loam with brick, charcoal and mortar inclusions'
Lot 5: Mortar sleeper trenches
Lot 5A: Horizontal feature interface for Lot 5
Lot 6: Very dark grey sandy loam with brick inclusions
Lot 7: Mottled very dark grey and very dark brown sandy loam with pebble inclusion
Lot 12/13: Trench

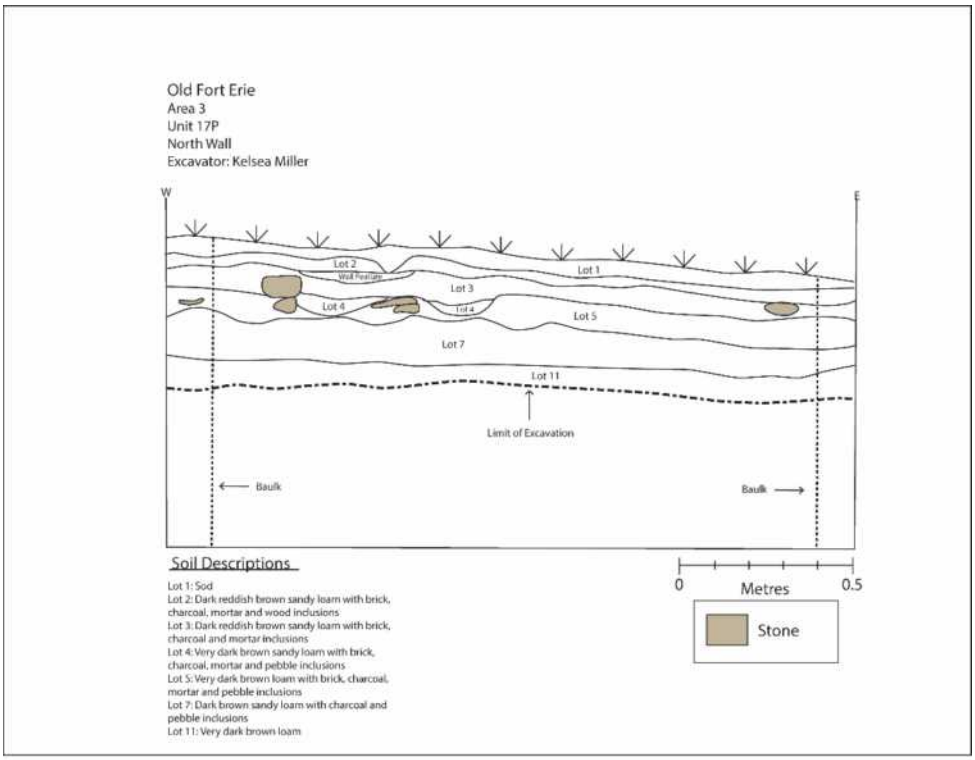

Old Fort Erie
Area 3
Unit 17N
North Wall
Excavator(s): Jordan Streb
W
E
Lot 1
Lot 2
Lot 3
Lot 4
Lot 6
Lot 5
Lot 5A
Lot 6
Lot 5
Lot 6
Lot 5
Lot 5A
Lot 6
Lot 5
Lot 6
Lot 5A
Lot 6
Lot 10
Lot 5A
Lot 11
Lot 7
A-Horizon
Lot 12/13
Limit of Excavation
Baulk
Baulk
0
Metres
0.5
Stone
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 3: Very dark grey sandy loam with brick, mortar and pebble inclusions
Lot 4: Very dark grey sandy loam with brick, charcoal and mortar inclusions'
Lot 5: Mortar sleeper trenches
Lot 5A: Horizontal feature interface for Lot 5
Lot 6: Very dark grey sandy loam with brick inclusions
Lot 7: Mottled very dark grey and very dark brown sandy loam with pebble inclusion
Lot 10/11: Very dark greyish brown sandy loam with brick inclusions
Lot 12/13: Trench

AREA 3 - UNIT N

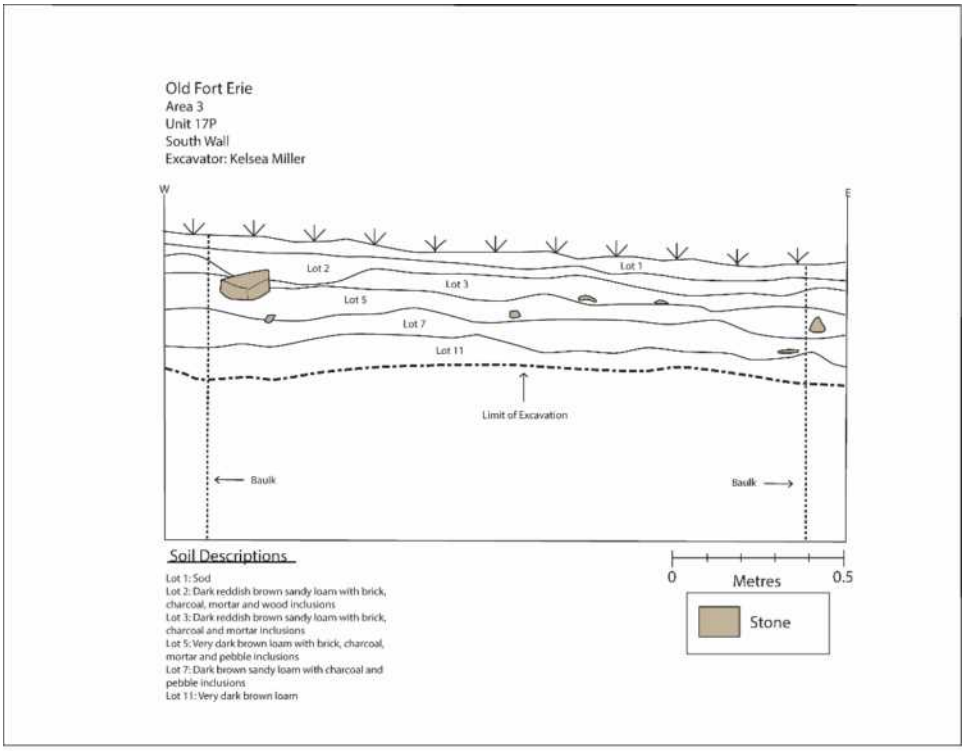

Old Fort Erie
Area 3
Unit 17N
South Wall
Excavator(s): Jordan Streb
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Lot 5
Lot 6
Lot 5A
Lot 7
Test Pit (2017)
A-Horizon
Limit of Excavation
Lot 5 + 5A
Sleeper Trench Fill and Interface
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 3: Very dark grey sandy loam with brick, mortar and pebble inclusions
Lot 4: Very dark grey sandy loam with brick, charcoal and mortar inclusions'
Lot 5: Mortar sleeper trenches
Lot 5A: Horizontal feature interface for Lot 5
Lot 6: Very dark grey sandy loam with brick inclusions
Lot 7: Mottled very dark grey and very dark brown sandy loam with pebble inclusion
0
Metres
0.5

AREA 3 - UNIT P

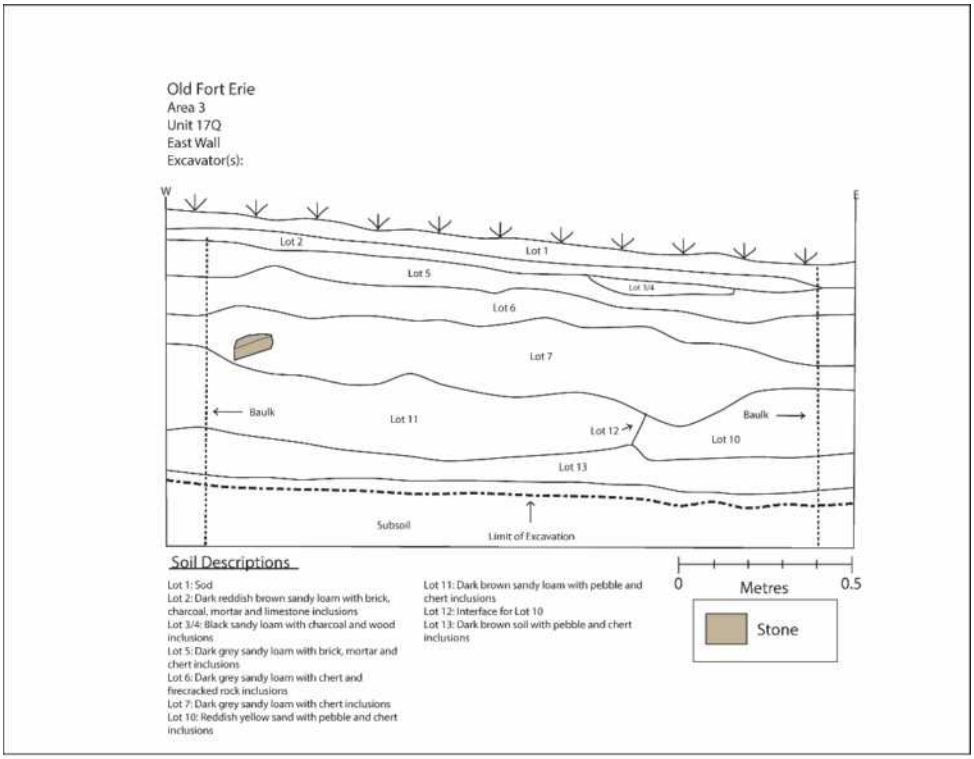

Old Fort Erie
Area 3
Unit 17P
East Wall
Excavator: Kelsea Miller
N
S
Lot 1
Lot 2
Lot 3
Lot 5
Lot 7
Lot 9/10
Lot 11
Limit of Excavation
Baulk Wall
Baulk Wall
Old Fort Erie
Area 3
Unit 17P
West Wall
Excavator: Kelsea Miller
N
S
Lot 1
Lot 2
Lot 3
Lot 5
Lot 7
Lot 6/8
Lot 11
Limit of Excavation
Baulk Wall
Baulk Wall
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal, mortar and wood inclusions
Lot 3: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 5: Very dark brown loam with brick, charcoal, mortar and pebble inclusions
Lot 7: Dark brown sandy loam with charcoal and pebble inclusions
Lot 6/8: Dark brown loam with brick, charcoal, mortar and pebble inclusions
Lot 9/10: Very dark brown loam with brick and mortar inclusions
Lot 11: Very dark brown loam
0
Metres
0.5
Stone

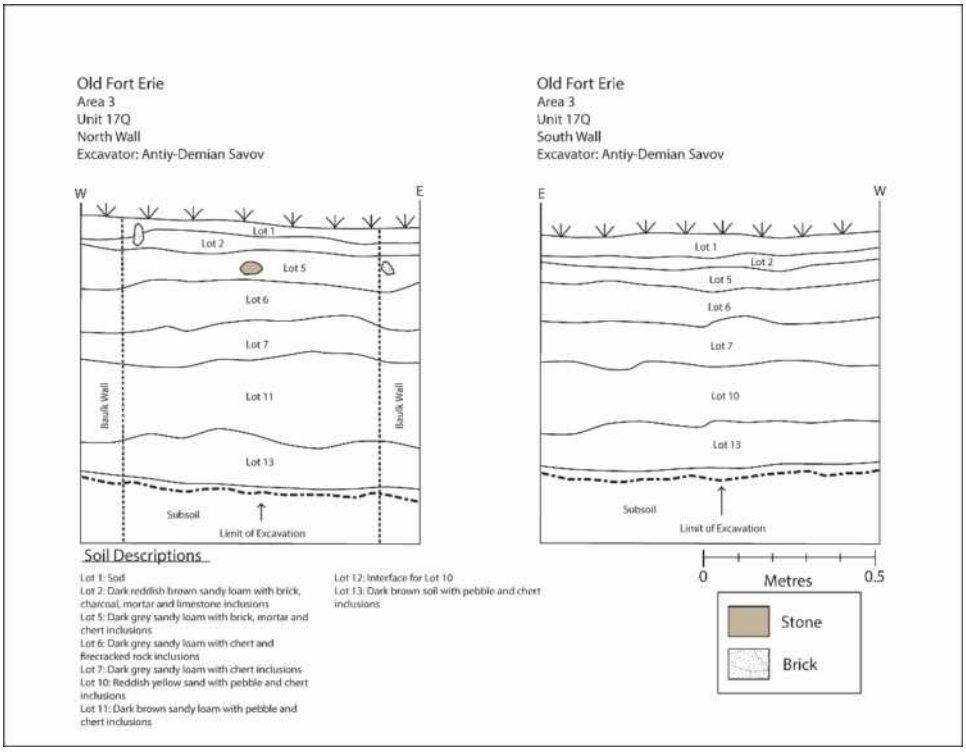

Old Fort Erie
Area 3
Unit 17P
North Wall
Excavator: Kelsea Miller
W
E
Lot 1
Lot 2
Wall Features
Lot 3
Lot 4
Trif 4
Lot 5
Lot 7
Lot 11
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal, mortar and wood inclusions
Lot 3: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 4: Very dark brown sandy loam with brick, charcoal, mortar and pebble inclusions
Lot 5: Very dark brown loam with brick, charcoal, mortar and pebble inclusions
Lot 7: Dark brown sandy loam with charcoal and pebble inclusions
Lot 11: Very dark brown loam
0
Metres
0.5
Stone

AREA 3 - UNIT P

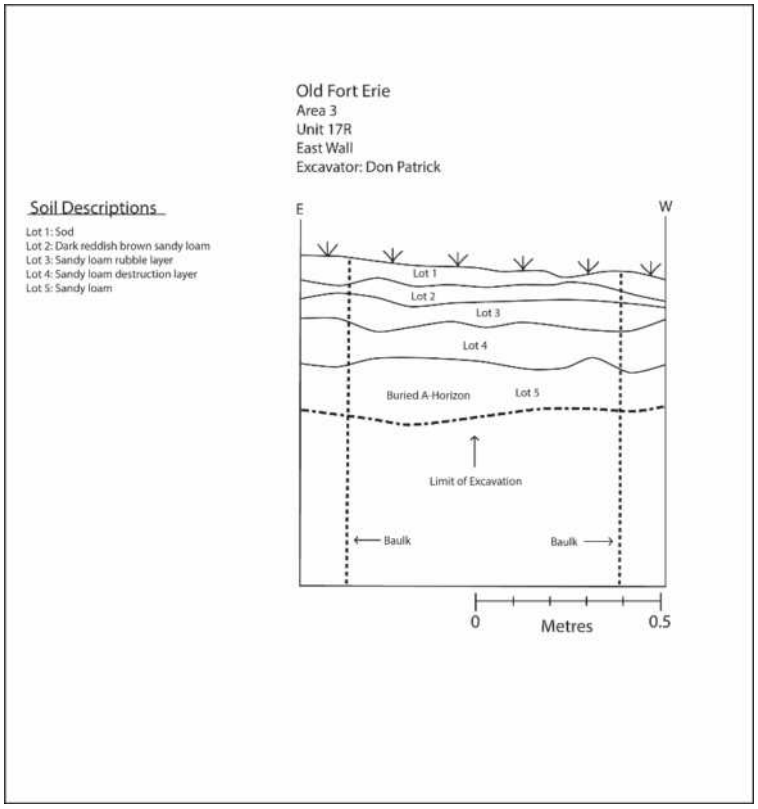

Old Fort Erie
Area 3
Unit 17P
South Wall
Excavator: Kelsea Miller
W
E
Lot 2
Lot 1
Lot 3
Lot 5
Lot 7
Lot 11
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal, mortar and wood inclusions
Lot 3: Dark reddish brown sandy loam with brick, charcoal and mortar inclusions
Lot 5: Very dark brown loam with brick, charcoal, mortar and pebble inclusions
Lot 7: Dark brown sandy loam with charcoal and pebble inclusions
Lot 11: Very dark brown loam
0
Metres
0.5
Stone

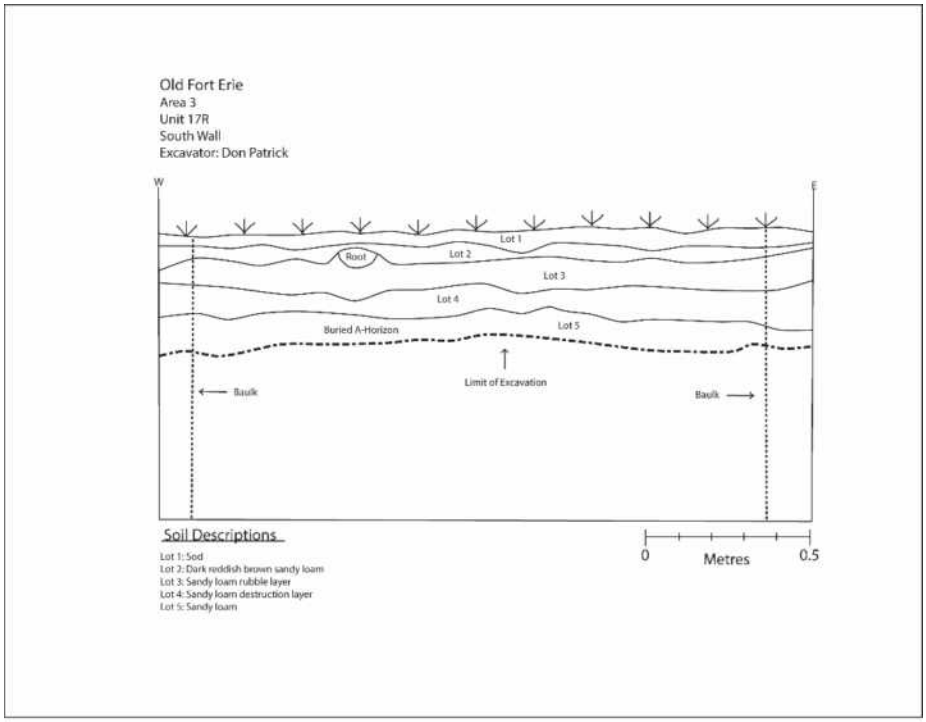
AREA 3 - UNIT Q


Old Fort Erie
Area 3
Unit 17Q
East Wall
Excavator(s):
W
E
Lot 2
Lot 1
Lot 5
Lot 3/4
Lot 6
Lot 7
Baulk
Lot 11
Lot 12
Baulk
Lot 10
Lot 13
Subsoil
Limit of Excavation
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal, mortar and limestone inclusions
Lot 3/4: Black sandy loam with charcoal and wood inclusions
Lot 5: Dark grey sandy loam with brick, mortar and chert inclusions
Lot 6: Dark grey sandy loam with chert and firecracked rock inclusions
Lot 7: Dark grey sandy loam with chert inclusions
Lot 10: Reddish yellow sand with pebble and chert inclusions
Lot 11: Dark brown sandy loam with pebble and chert inclusions
Lot 12: Interface for Lot 10
Lot 13: Dark brown soil with pebble and chert inclusions
0
Metres
0.5
Stone

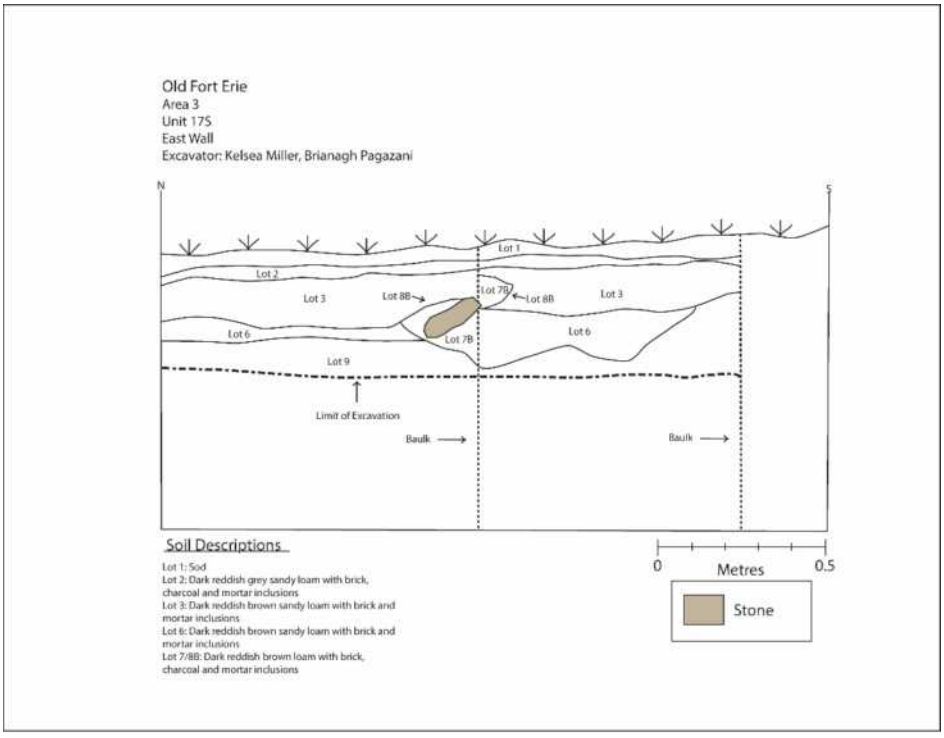

Old Fort Erie
Area 3
Unit 17Q
North Wall
Excavator: Antiy-Demian Savov
W
E
Lot 1
Lot 2
Lot 5
Lot 6
Lot 7
Baulk Wall
Lot 11
Baulk Wall
Lot 13
Subsoil
Limit of Excavation
Old Fort Erie
Area 3
Unit 17Q
South Wall
Excavator: Antiy-Demian Savov
E
W
Lot 1
Lot 2
Lot 5
Lot 6
Lot 7
Lot 10
Lot 13
Subsoil
Limit of Excavation
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam with brick, charcoal, mortar and limestone inclusions
Lot 5: Dark grey sandy loam with brick, mortar and chert inclusions
Lot 6: Dark grey sandy loam with chert and firecracked rock inclusions
Lot 7: Dark grey sandy loam with chert inclusions
Lot 10: Reddish yellow sand with pebble and chert inclusions
Lot 11: Dark brown sandy loam with pebble and chert inclusions
Lot 12: Interface for Lot 10
Lot 13: Dark brown soil with pebble and chert inclusions
0
Metres
0.5
Stone
Brick

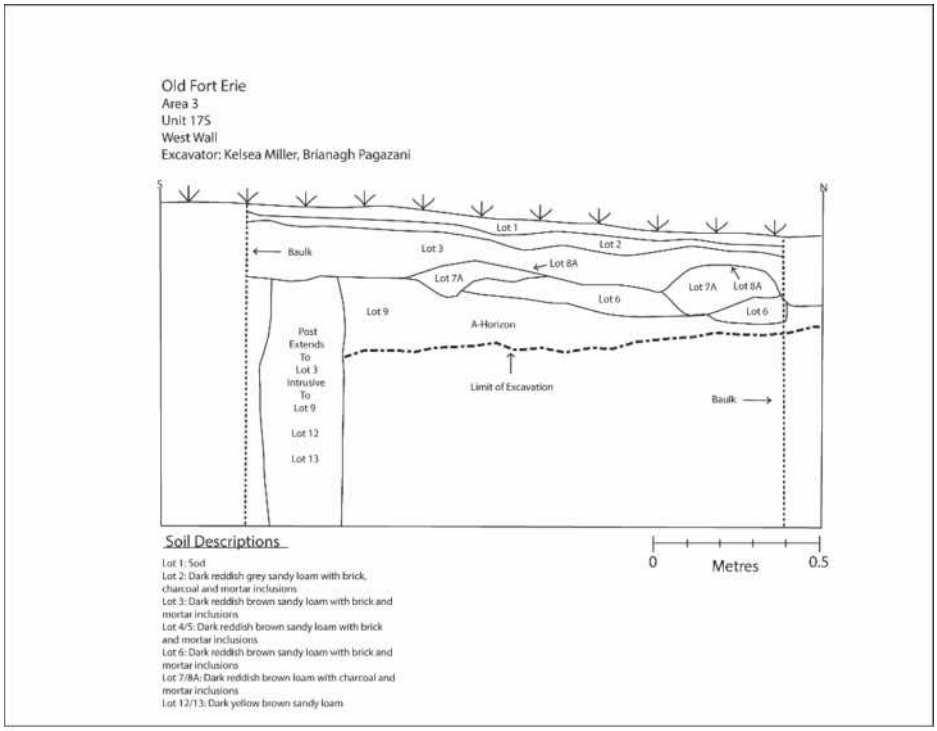
AREA 3 - UNIT R


Old Fort Erie
Area 3
Unit 17R
East Wall
Excavator: Don Patrick
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam
Lot 3: Sandy loam rubble layer
Lot 4: Sandy loam destruction layer
Lot 5: Sandy loam
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Buried A-Horizon
Lot 5
Limit of Excavation
Baulk
Baulk
0
Metres
0.5

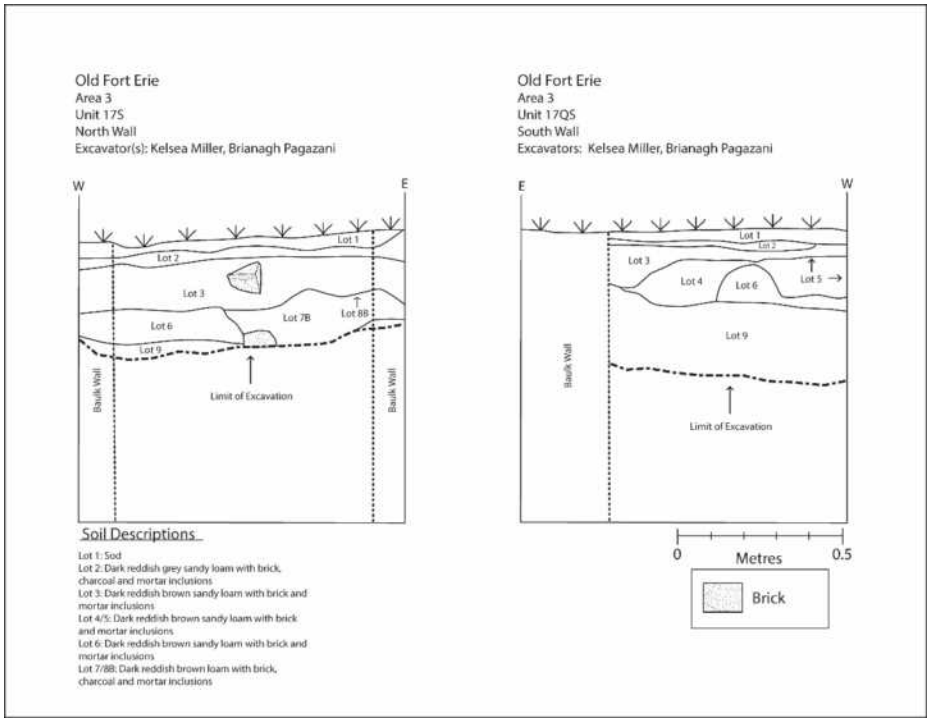

Old Fort Erie
Area 3
Unit 17R
South Wall
Excavator: Don Patrick
W
E
Lot 1
Root
Lot 2
Lot 3
Lot 4
Buried A-Horizon
Lot 5
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish brown sandy loam
Lot 3: Sandy loam rubble layer
Lot 4: Sandy loam destruction layer
Lot 5: Sandy loam
0
Metres
0.5

AREA 3 - UNIT S

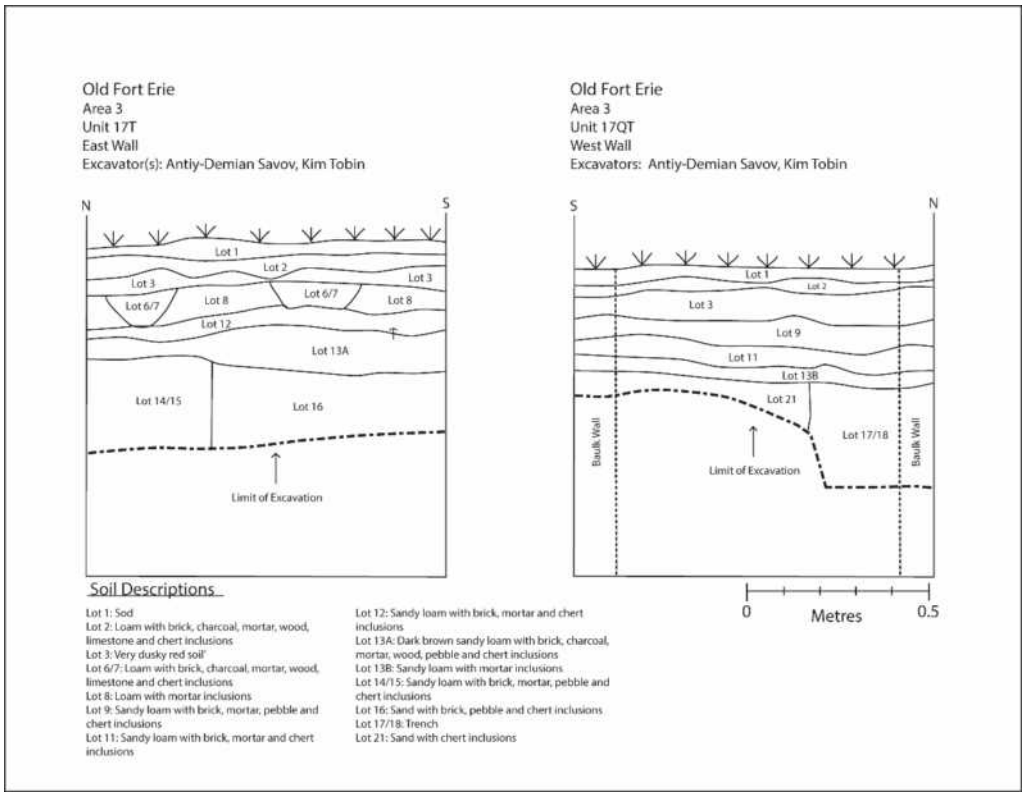

Old Fort Erie
Area 3
Unit 17S
East Wall
Excavator: Kelsea Miller, Brianagh Pagazani
N
S
Lot 1
Lot 2
Lot 3
Lot 8B
Lot 7B
Lot 8B
Lot 3
Lot 6
Lot 7B
Lot 6
Lot 9
Limit of Excavation
Baulk
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish grey sandy loam with brick, charcoal and mortar inclusions
Lot 3: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 6: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 7/8B: Dark reddish brown loam with brick, charcoal and mortar inclusions
0
Metres
0.5
Stone

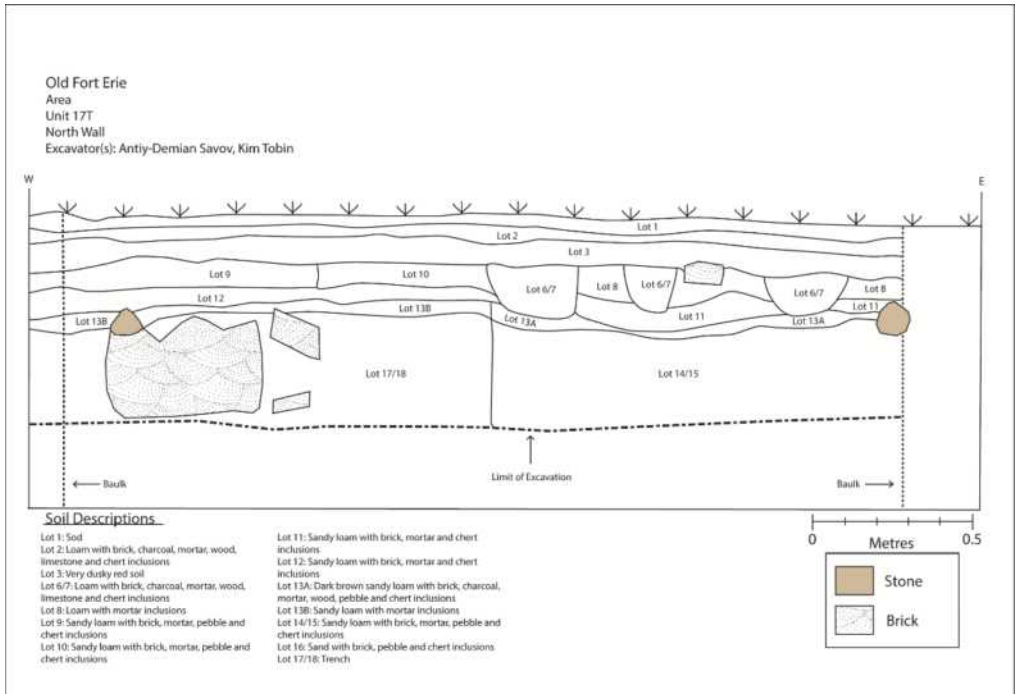

Old Fort Erie
Area 3
Unit 17S
West Wall
Excavator: Kelsea Miller, Brianagh Pagazani
S
N
Lot 1
Lot 2
Baulk
Lot 3
Lot 8A
Lot 7A
Lot 7A
Lot 8A
Lot 6
Lot 6
Lot 9
A-Horizon
Post Extends To Lot 3 Intrusive To Lot 9
Lot 12
Lot 13
Limit of Excavation
Baulk
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish grey sandy loam with brick, charcoal and mortar inclusions
Lot 3: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 4/5: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 6: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 7/8A: Dark reddish brown loam with charcoal and mortar inclusions
Lot 12/13: Dark yellow brown sandy loam
0
Metres
0.5

AREA 3 - UNIT S

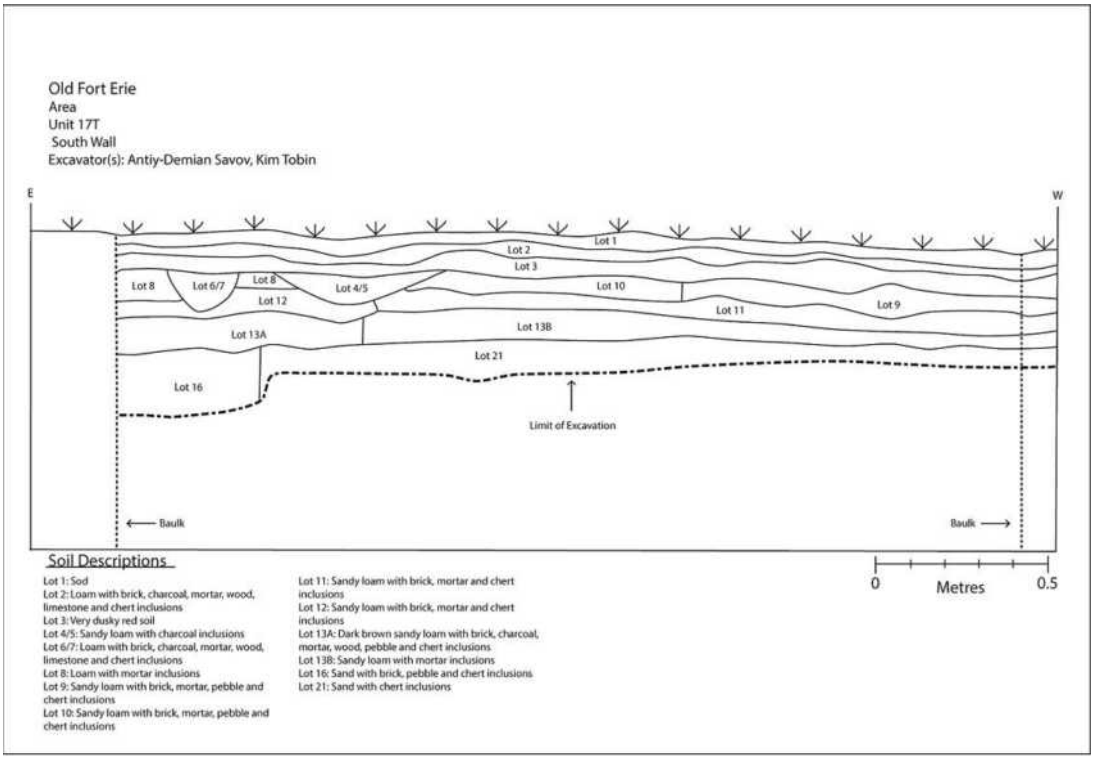

Old Fort Erie
Area 3
Unit 17S
North Wall
Excavator(s): Kelsea Miller, Brianagh Pagazani
W
E
Lot 1
Lot 2
Lot 3
Lot 6
Lot 7B
Lot 8B
Lot 9
Limit of Excavation
Baulk Wall
Baulk Wall
Soil Descriptions
Lot 1: Sod
Lot 2: Dark reddish grey sandy loam with brick, charcoal and mortar inclusions
Lot 3: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 4/5: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 6: Dark reddish brown sandy loam with brick and mortar inclusions
Lot 7/8B: Dark reddish brown loam with brick, charcoal and mortar inclusions
Old Fort Erie
Area 3
Unit 17QS
South Wall
Excavators: Kelsea Miller, Brianagh Pagazani
E
W
Lot 1
Lot 2
Lot 3
Lot 4
Lot 6
Lot 5
Lot 9
Baulk Wall
Limit of Excavation
0
Metres
0.5
Brick

AREA 3 - UNIT T


Old Fort Erie
Area 3
Unit 17T
East Wall
Excavator(s): Antiy-Demian Savov, Kim Tobin
N
S
Lot 1
Lot 2
Lot 3
Lot 6/7
Lot 8
Lot 12
Lot 13A
Lot 14/15
Lot 16
Limit of Excavation
Old Fort Erie
Area 3
Unit 17QT
West Wall
Excavators: Antiy-Demian Savov, Kim Tobin
S
N
Lot 9
Lot 11
Lot 13B
Lot 21
Lot 17/18
Baulk Wall
0
Metres
0.5
Soil Descriptions
Lot 1: Sod
Lot 2: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 3: Very dusky red soil'
Lot 6/7: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 8: Loam with mortar inclusions
Lot 9: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 11: Sandy loam with brick, mortar and chert inclusions
Lot 12: Sandy loam with brick, mortar and chert inclusions
Lot 13A: Dark brown sandy loam with brick, charcoal, mortar, wood, pebble and chert inclusions
Lot 13B: Sandy loam with mortar inclusions
Lot 14/15: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 16: Sand with brick, pebble and chert inclusions
Lot 17/18: Trench
Lot 21: Sand with chert inclusions


Old Fort Erie
Area
Unit 17T
North Wall
Excavator(s): Antiy-Demian Savov, Kim Tobin
W
E
Lot 1
Lot 2
Lot 3
Lot 9
Lot 10
Lot 12
Lot 13B
Lot 6/7
Lot 8
Lot 11
Lot 13A
Lot 17/18
Lot 14/15
Baulk
Limit of Excavation
Baulk
0
Metres
0.5
Stone
Brick
Soil Descriptions
Lot 1: Sod
Lot 2: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 3: Very dusky red soil
Lot 6/7: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 8: Loam with mortar inclusions
Lot 9: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 10: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 11: Sandy loam with brick, mortar and chert inclusions
Lot 12: Sandy loam with brick, mortar and chert inclusions
Lot 13A: Dark brown sandy loam with brick, charcoal, mortar, wood, pebble and chert inclusions
Lot 13B: Sandy loam with mortar inclusions
Lot 14/15: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 16: Sand with brick, pebble and chert inclusions
Lot 17/18: Trench

AREA 3 - UNIT T


Old Fort Erie
Area
Unit 17T
South Wall
Excavator(s): Antiy-Demian Savov, Kim Tobin
E
W
Lot 1
Lot 2
Lot 3
Lot 8
Lot 6/7
Lot 8
Lot 4/5
Lot 12
Lot 10
Lot 11
Lot 9
Lot 13A
Lot 13B
Lot 21
Lot 16
Limit of Excavation
Baulk
Baulk
0
Metres
0.5
Soil Descriptions
Lot 1: Sod
Lot 2: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 3: Very dusky red soil
Lot 4/5: Sandy loam with charcoal inclusions
Lot 6/7: Loam with brick, charcoal, mortar, wood, limestone and chert inclusions
Lot 8: Loam with mortar inclusions
Lot 9: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 10: Sandy loam with brick, mortar, pebble and chert inclusions
Lot 11: Sandy loam with brick, mortar and chert inclusions
Lot 12: Sandy loam with brick, mortar and chert inclusions
Lot 13A: Dark brown sandy loam with brick, charcoal, mortar, wood, pebble and chert inclusions
Lot 13B: Sandy loam with mortar inclusions
Lot 16: Sand with brick, pebble and chert inclusions
Lot 21: Sand with chert inclusions

Appendix C
Maps and Images of Old Fort Erie

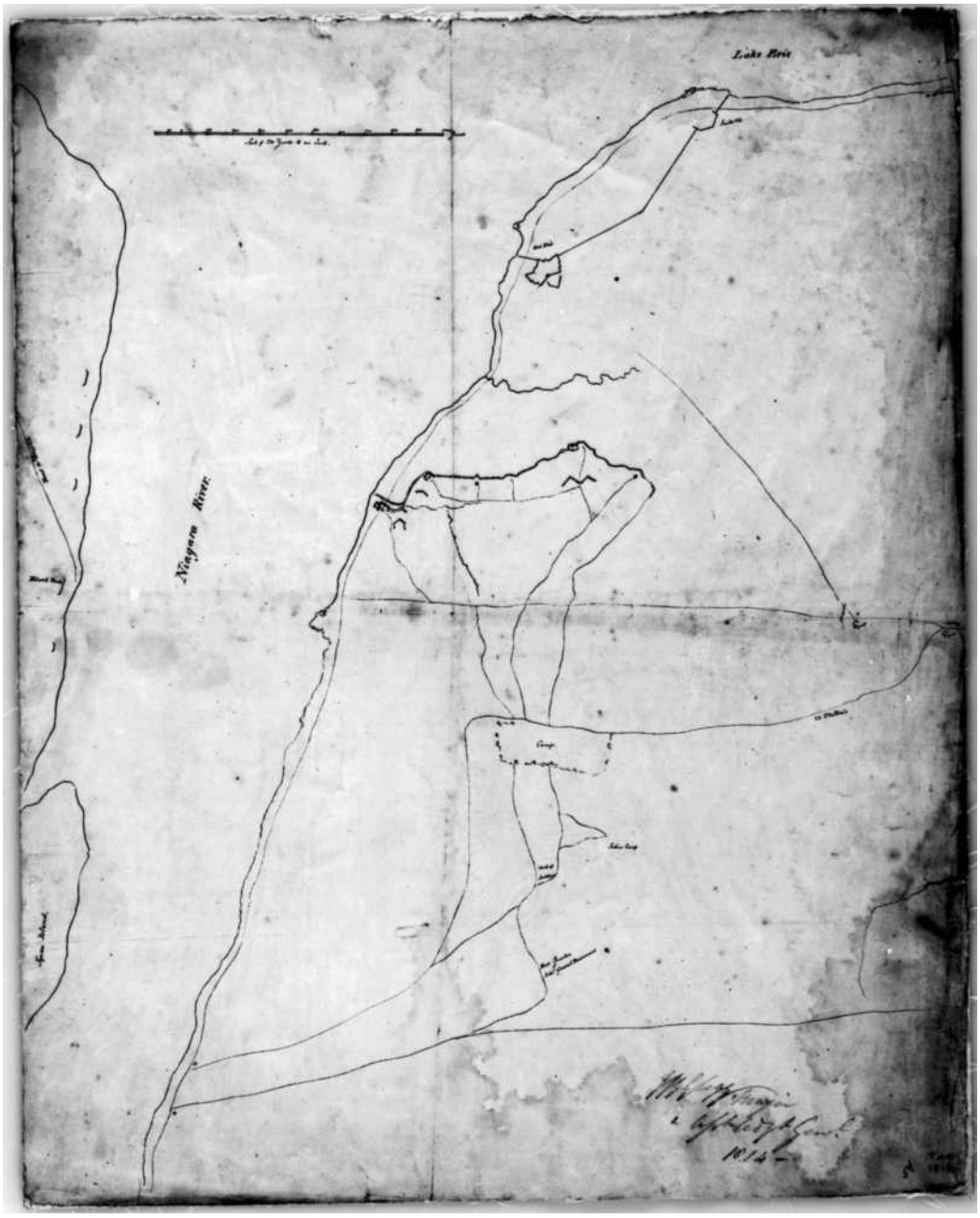


Figure 1 [1814] Sketch showing the situation of Fort Erie and position of forces for the attack by the British [Sgd] J.B. Glegg Major & Asst Adjt Genl 1814 Library and Archives Canada, NMC 4857.

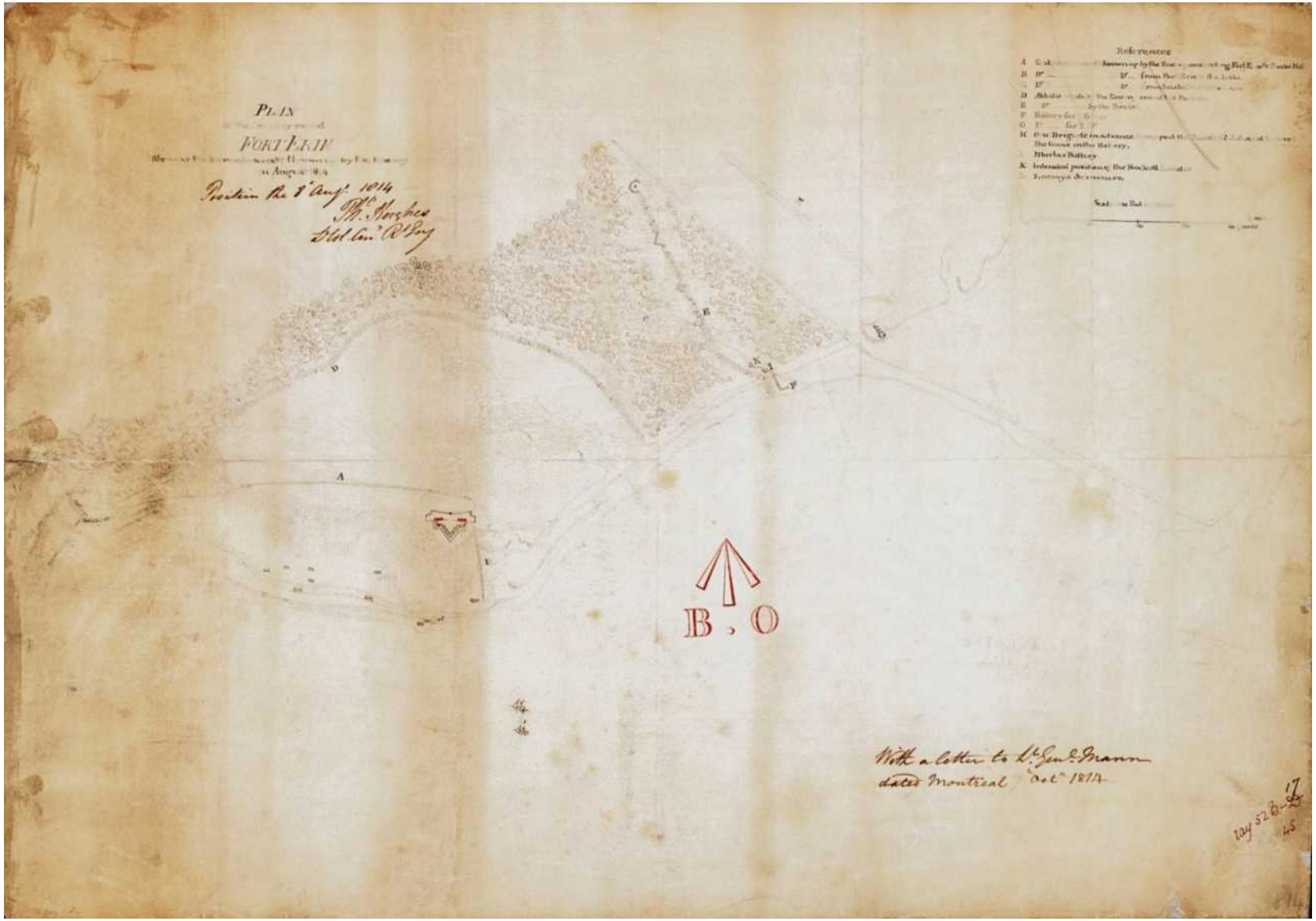


Figure 2 August 8, 1814 plan by Ph (Philip) Hughes, Library and Archives Canada NMC 3803.

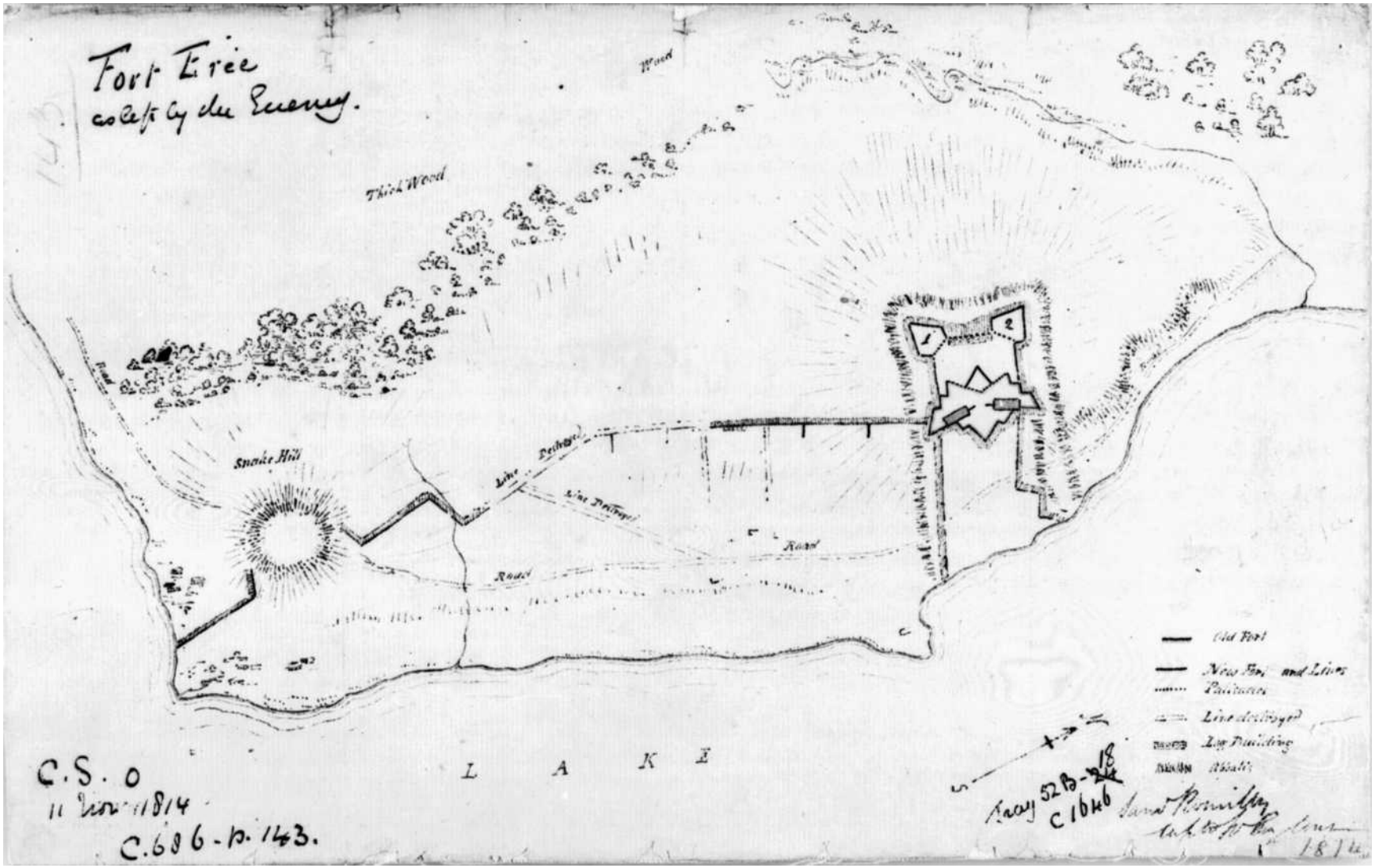


Figure 3 [1814] [Endorsed title]: 'Fort Erie as left by the Enemy.' [Sgd] Sam Romilly Lieut R1 Engineers. Library and Archives Canada, NMC 70956.

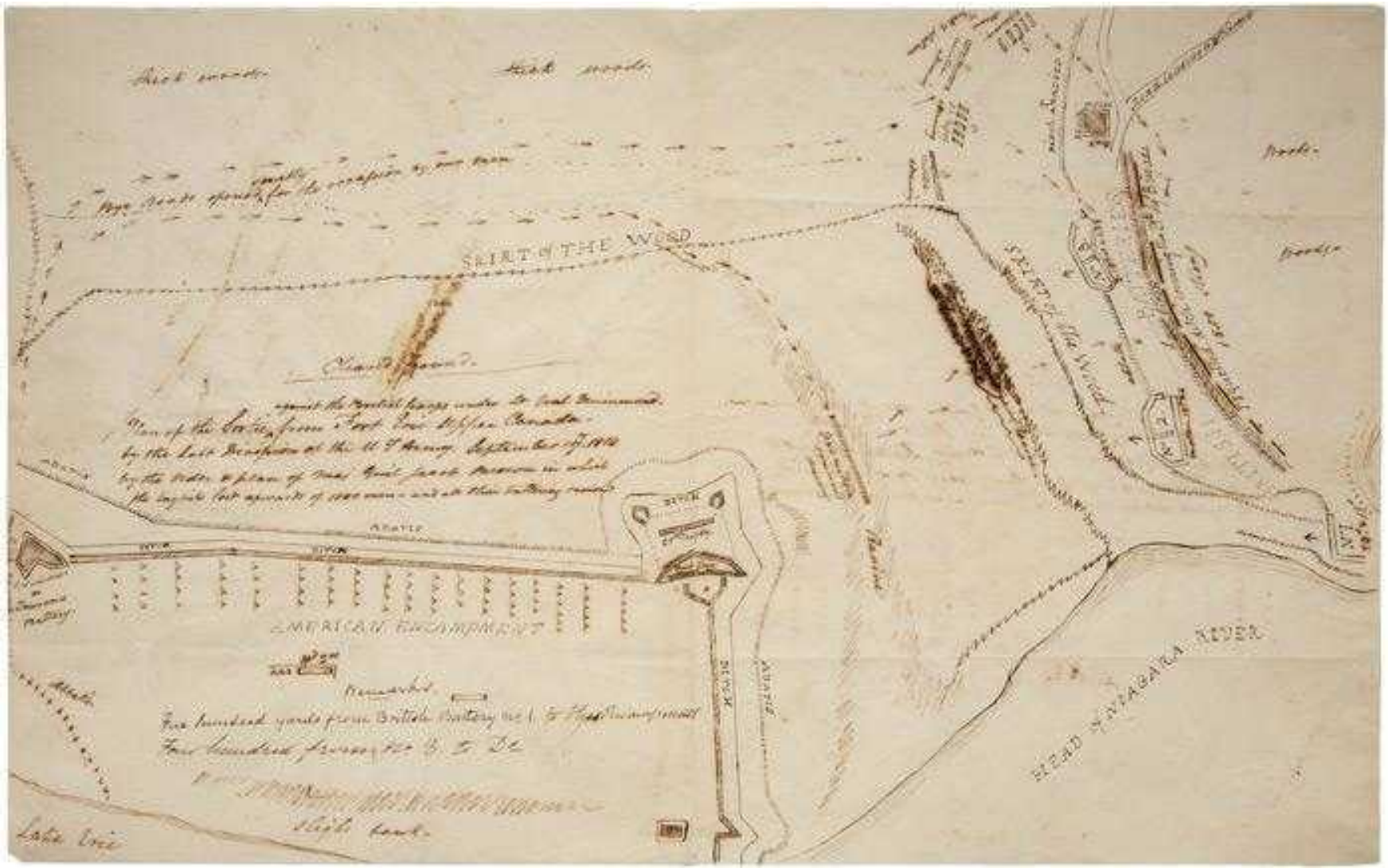


Figure 4 Map from David Hobden from William Reese and on file in the Clements Library, University of Michigan.

Figure 5 [1815] Plan of the Attack made upon Fort Erie (Upper Canada) by the Right Division of the British Army, under the Command of Lt Genl Drummond in August and Septr 1814 [Sgd] George Philpotts Lieut Royl Engineers, Capt Romilly Comg Rl Engineers Niagara Frontier. G. Nicolls Lt. Col. Cg R1 Engineers in Canada Quebec 27th July 1815, Library and Archives Canada, NMC 22340.

Figure 6 [1815] Plan of the Operations of the British Army, in front of Fort Erie, in the Months of August & September 1814 under the Command of Lieutenant General Sir Gordon Drummond, Knight Commander of the Bath &c. &c. Copied from the Original of Lieut [W.A.] Nesfield by Geo. D. Cranfield D.A.Q.M. Genl. Kingston. Upper Canada. 3d May 1815, NMC 22341.

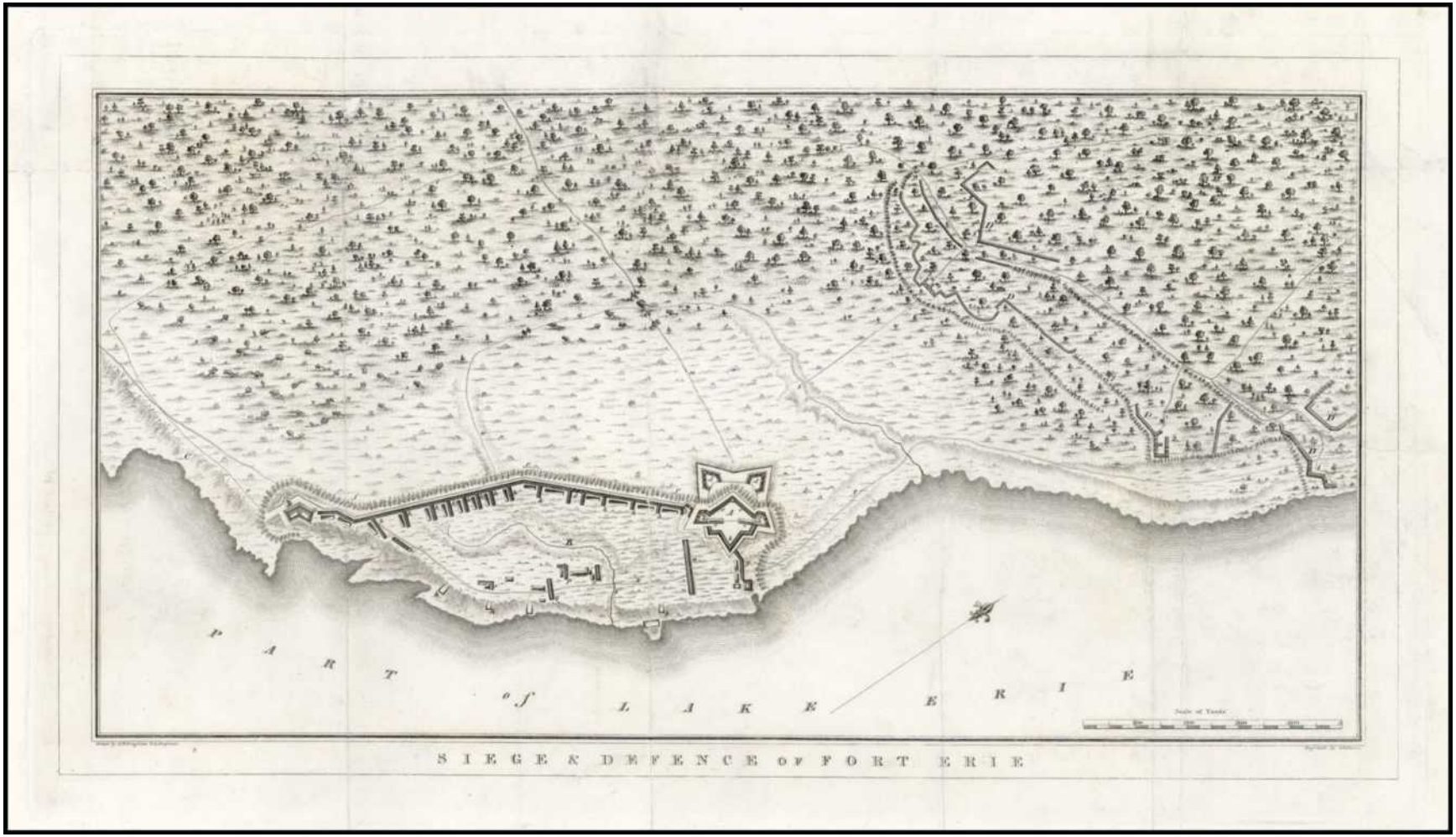


Figure 7 1816 Siege and Defense of Fort Erie, by D.B. Douglass and John Vallance, in Dennie, Joseph 1816 *Attack on Fort Erie*. Portfolio Magazine, Philadelphia.

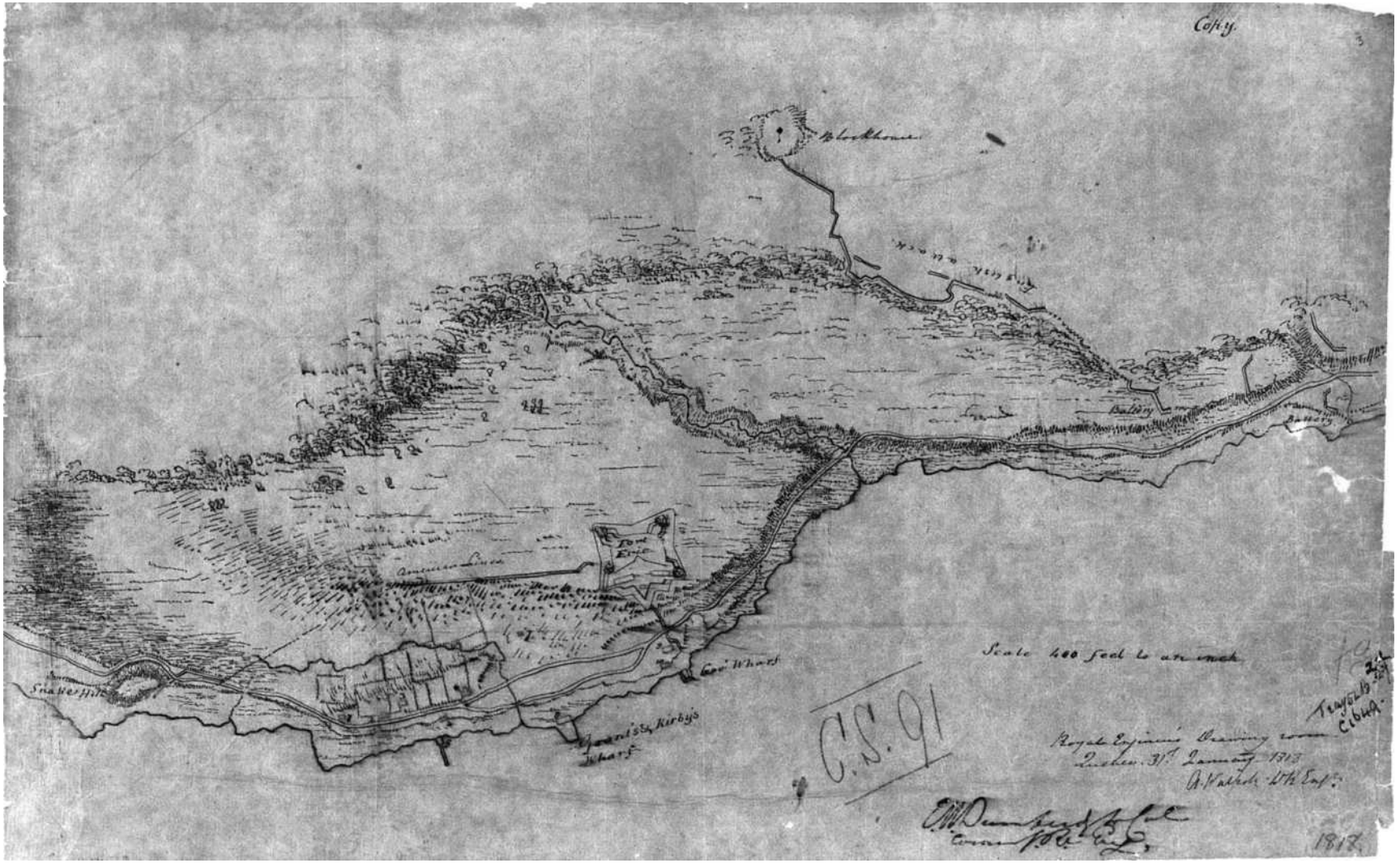


Figure 8 1818 Royal Engineers plan of Fort Erie by A. Walpole and E.W. Durnford. Library and Archives Canada, NMC 3804.

Figure 9 1818 Chart Illustrative of the Siege and Defense of Fort Erie.

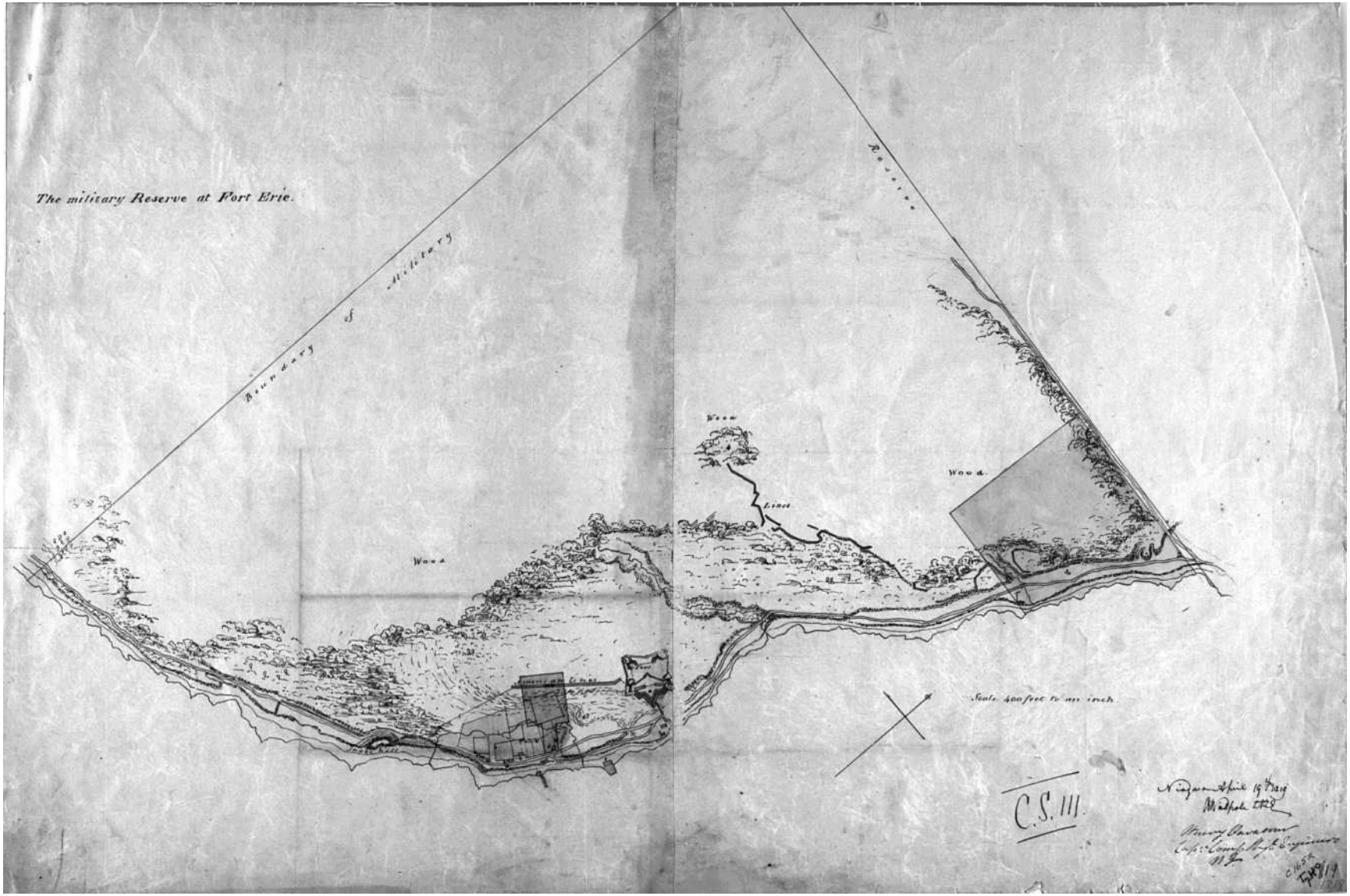


Figure 10 1819 plan of Fort Erie and Military Reserve, by A. Walpole and Captn. Henry Vavasour, Royal Engineers Library and Archives Canada, NMC 22342.

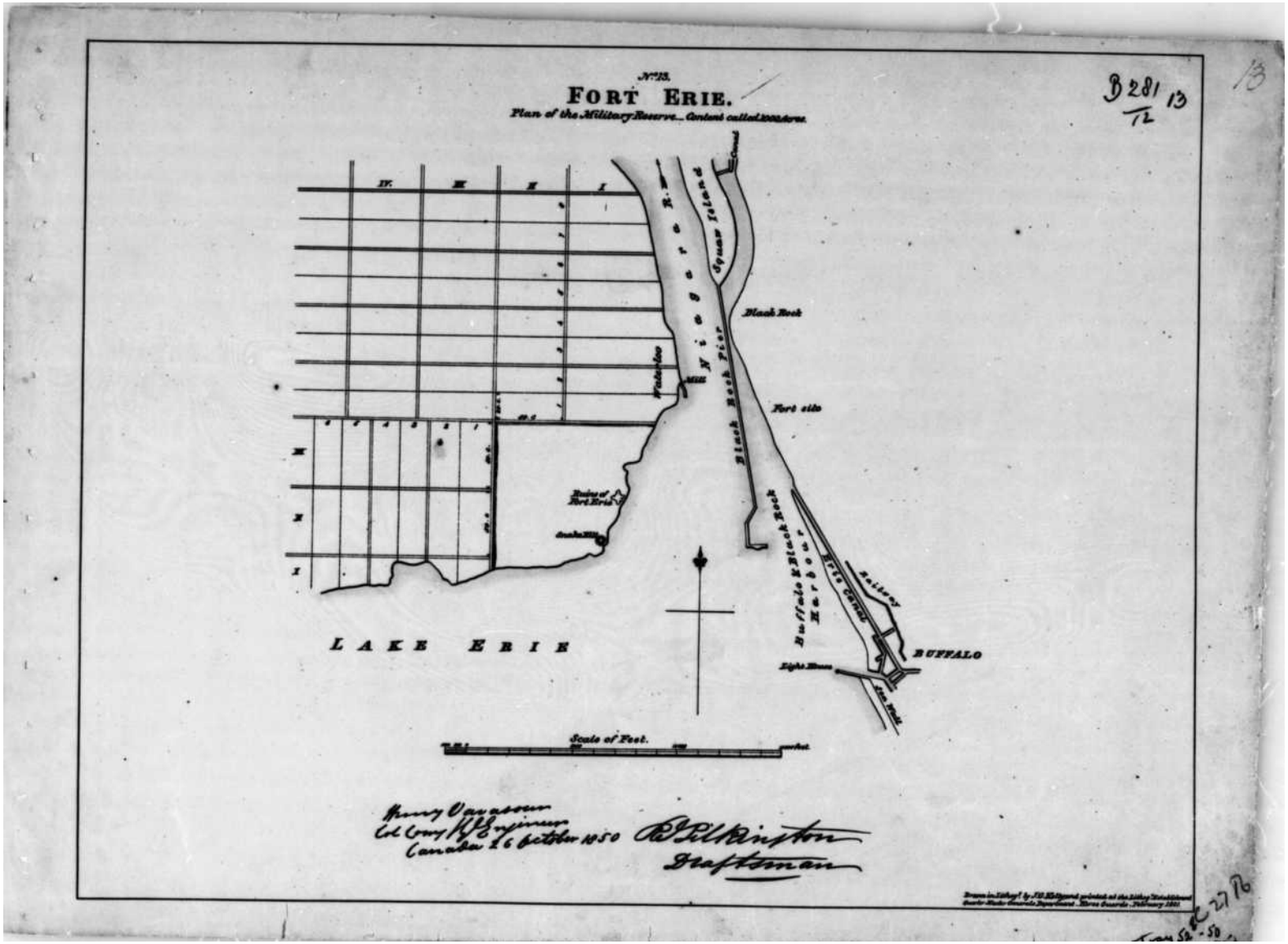


Figure 11 [1851] No. 13 Fort Erie, Plan of the Military Reserve by Henry Vavasour, Royal Engineer showing 'Ruins of Fort Erie'. Library and Archives Canada, NMC 3811.

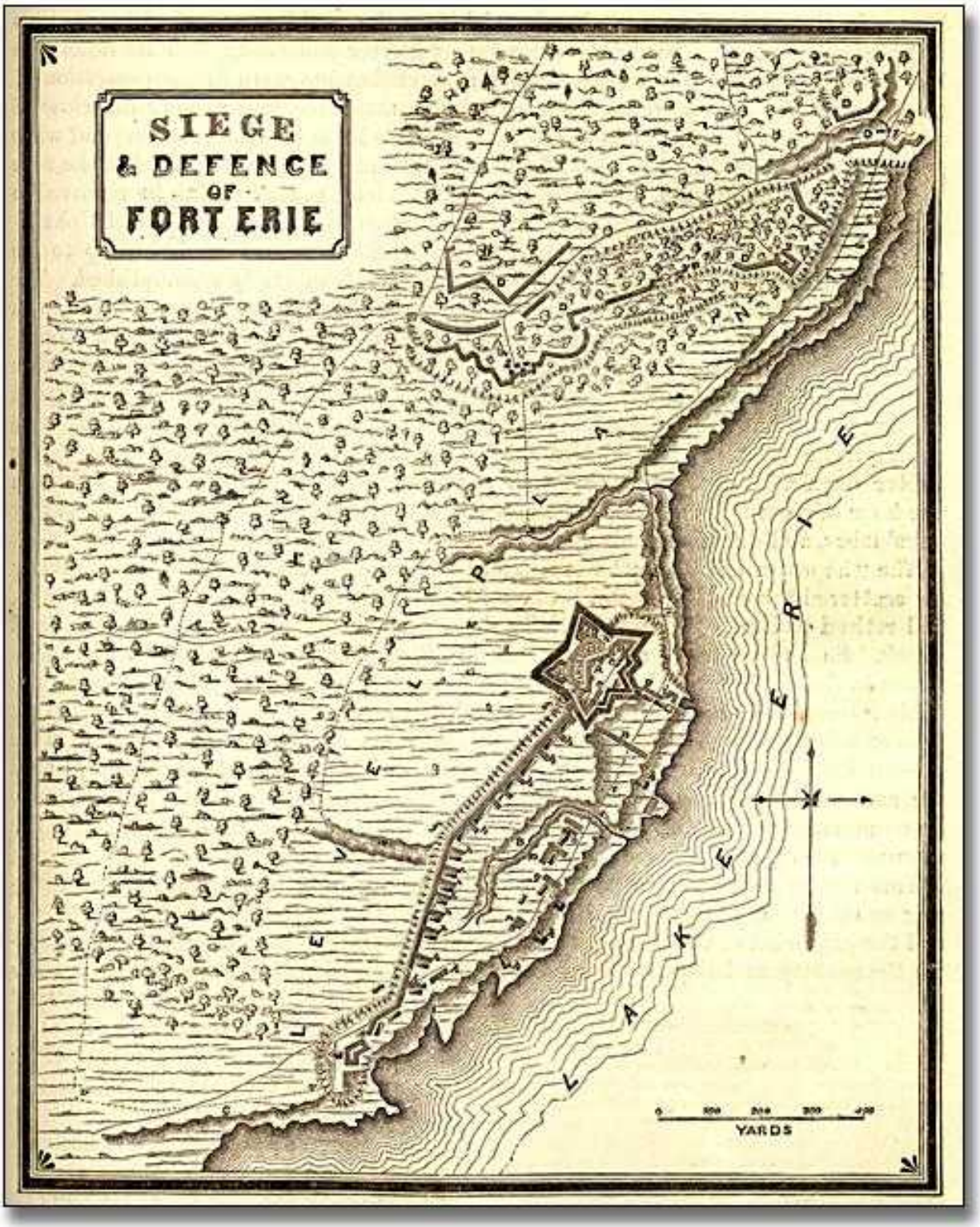


Figure 12 Plan of Fort Erie from *Pictorial Field-book of the War of 1812,* by Benson J. Lossing, 1869. Illustration. Reference Code: 971 .034 LOS, page 839 Archives of Ontario Library.

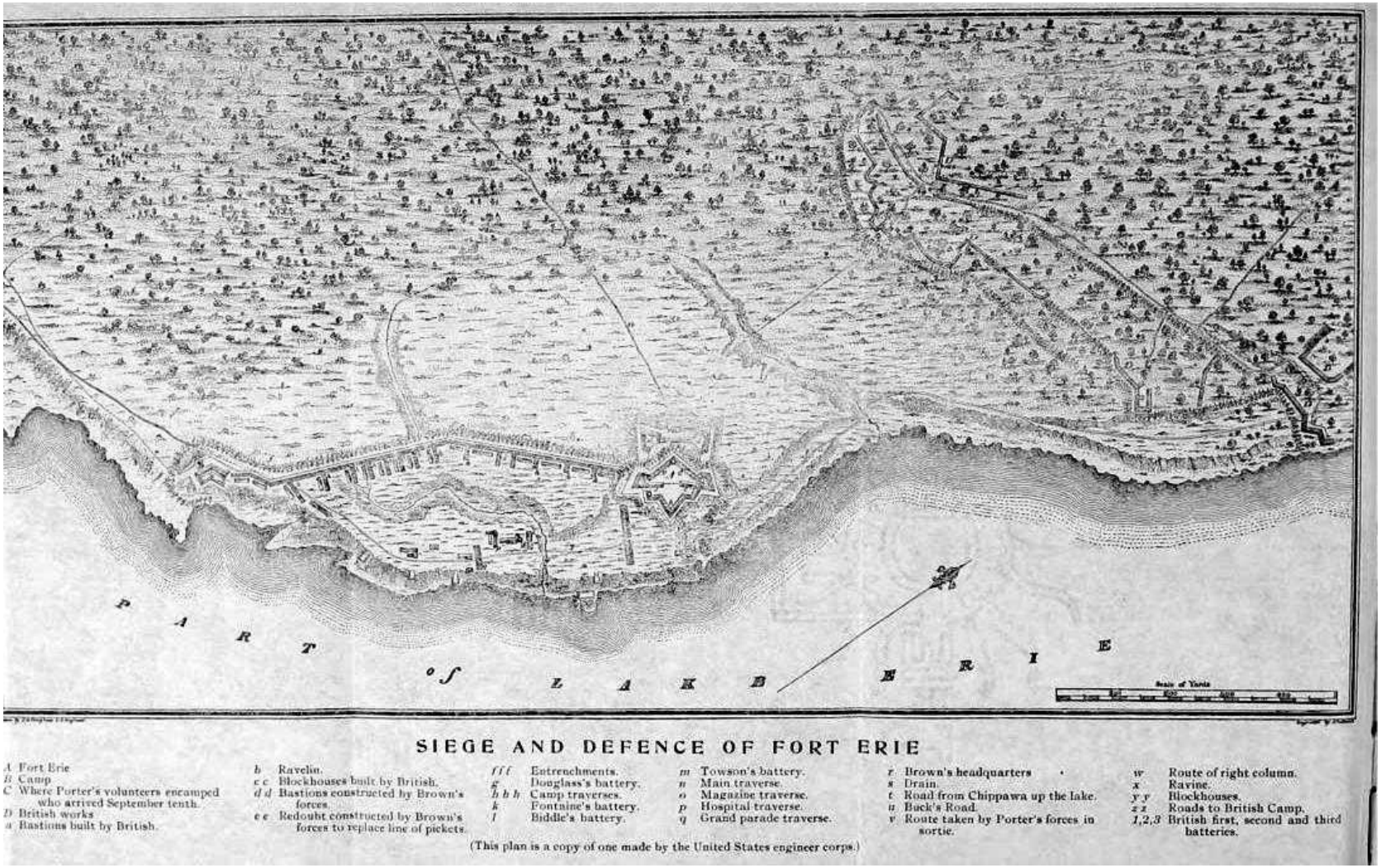


Figure 13 1905 Cruickshank (copy of Douglass 1816 plan).

Figure 14 1934 Aerial photograph showing Fort Erie grounds with detail below.

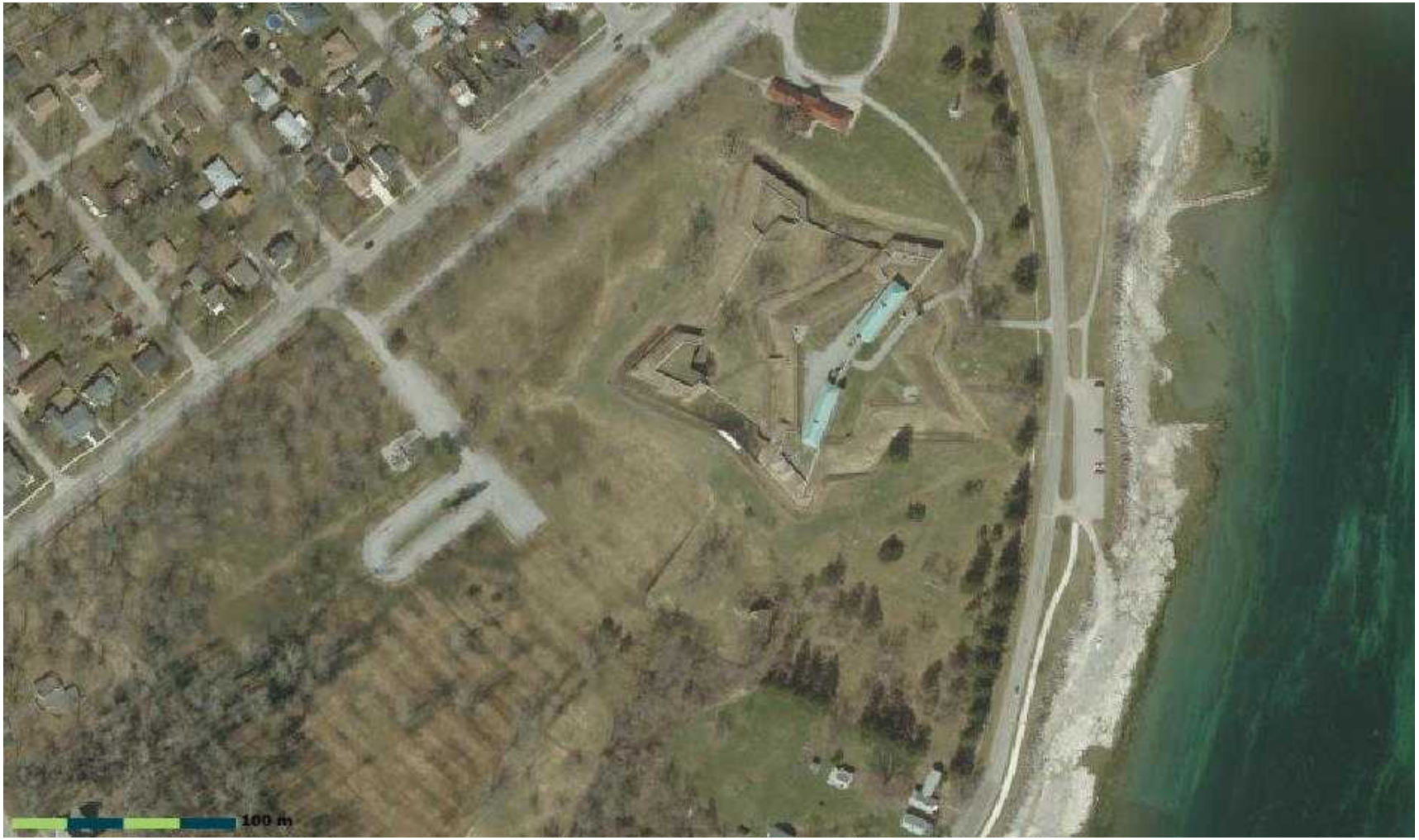


Figure 15 2010 Satellite image of Old Fort Erie National Historic Site.

Figure 16 View of entrenchments at Old Fort Erie, undated photograph on file at Old Fort Erie, NHS.

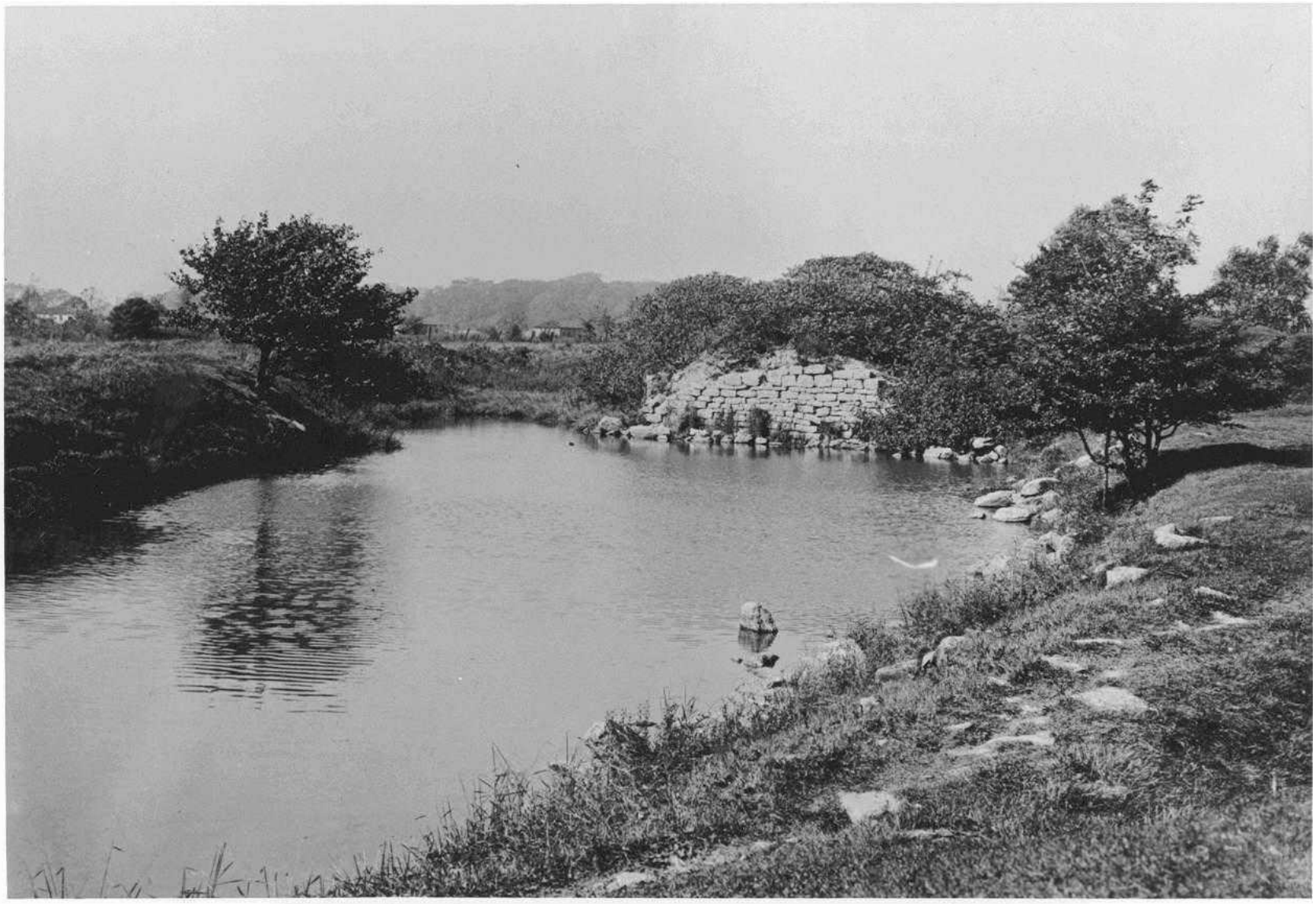


Figure 17 View of ruins of bastion at Old Fort Erie showing inundated defensive ditch. Undated photograph on file at Old Fort Erie, NHS.

Figure 18 Ruins of Fort Erie, 1920, M. O. Hammond, M. O. Hammond fonds, Black and white photograph, Reference Code: F 1075-9-0-22, Archives of Ontario.

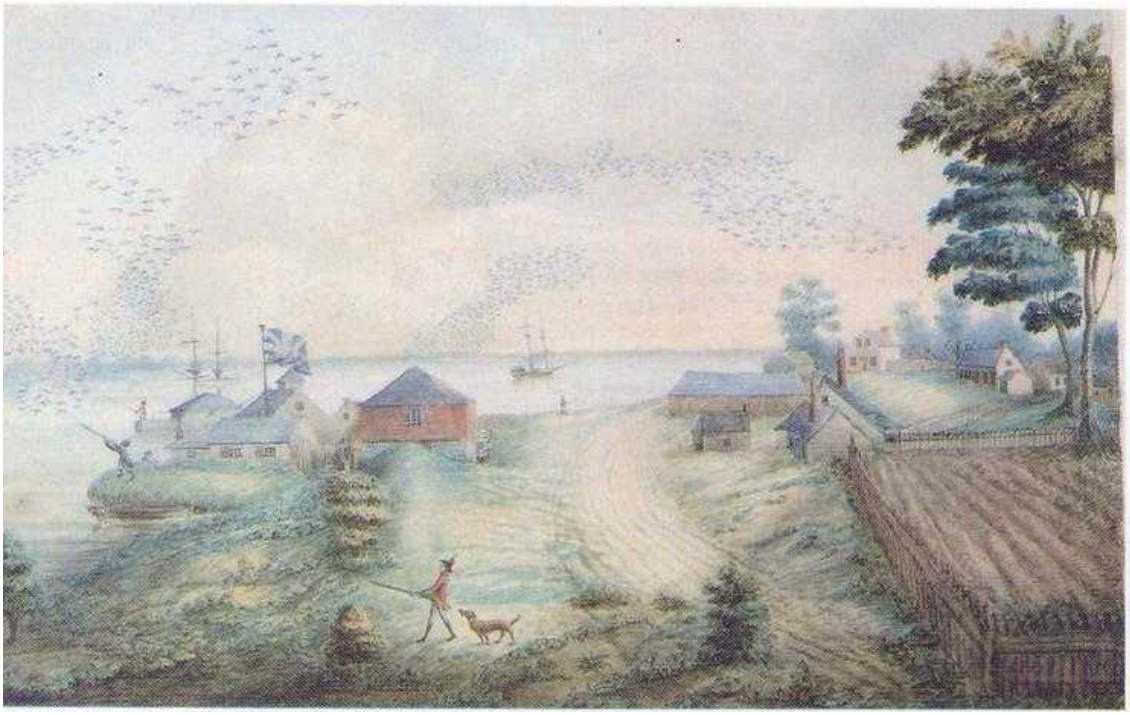


Figure 19 Old Fort Erie With the Migration of Wild Pigeons, dated 1804; by Edward Walsh, Sigmund Samuel Collection, 952.218, ROM2006 7733 1.

Figure20 Fort Erie Park - Old Fort Erie Francis J. Petrie Collection, September 5, 1930. Niagara Falls Public Library Digital Collections, Record ID 94893.

Figure 21 Official guide to Niagara - The ruins of old Fort Erie, Scan from the book *Official Guide Niagara Falls, River. Electric, Historic, Geologic, Hydraulic by Peter A. Porter with illustrations by Charles D Arnold published 1901,* Niagara Falls Public Library Local History Collection, Record ID 91253.

Figure 22 Title The Old Fort Erie – 1939, Francis J. Petrie Collection, July 30, 1939. Niagara Falls Public Library Digital Collections, Record ID 94943.

Figure 23 Old Fort Erie during its reconstruction (1937-1939), Francis J. Petrie Collection. Niagara Falls Public Library Digital Collections, Record ID 94886.

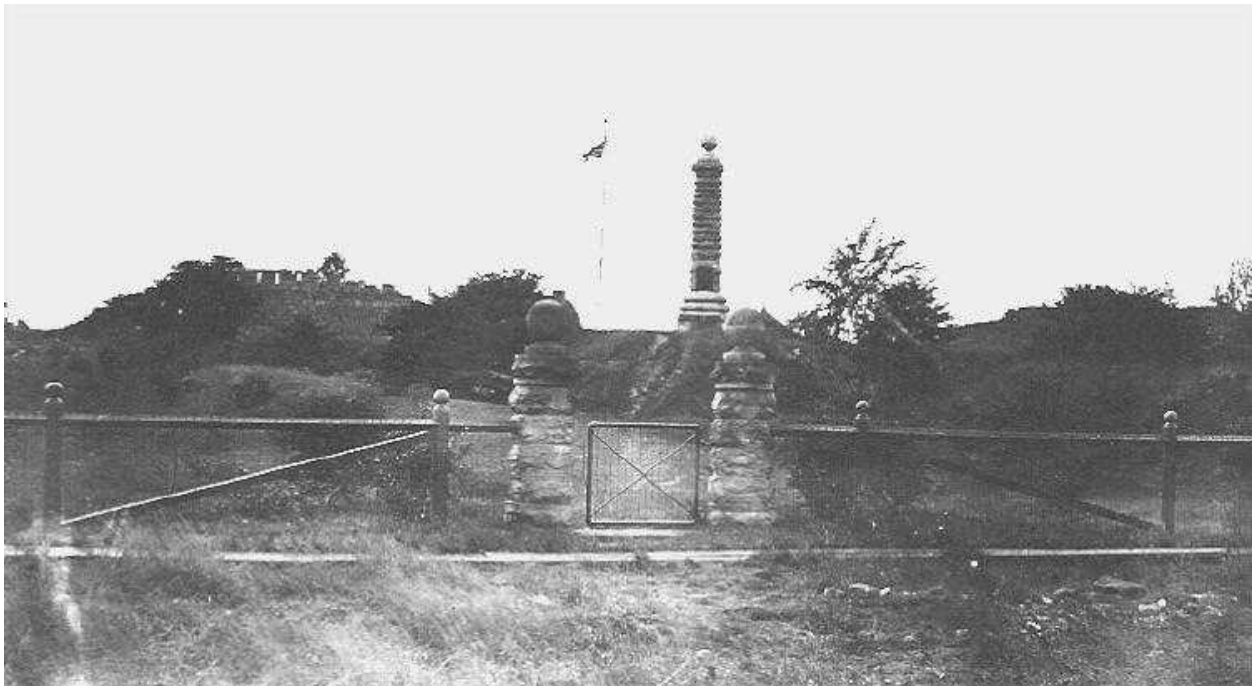


Figure 24 Old Fort Erie Park Ruins, Francis J. Petrie Collection, Date 1910. General Photograph Collection, Niagara Falls Public Library, Record ID 94822.

Figure 25 The Old Fort at Fort Erie, Canada, Photographer Unknown, General Photograph Collection, postcard. The Petrie Collection, Niagara Falls (Ont.) Public Library, Record ID 362530. Probable date – ca. 1910.

Figure 26 Park scene showing the Old Fort at Fort Erie, Canada, Postcard, date Unknown, General Photograph Collection, Fort Erie (Ont.), Niagara Falls (Ont.) Public Library, Record ID 362528.

Figure 27 Ruins of Fort Erie Canada, Postcard Collection, Also available as a black and white postcard which was mailed in Fort Erie on July 23 1906. Niagara Falls (Ont.) Public Library, Record ID 294583.

Figure 28 Ruins of Old Fort Erie, Fort Erie, Ont., Postcard, Niagara Falls (Ont.) Public Library, Record ID 369909. Probable date – ca. 1910.

Figure The Entrance to the Old Fort Erie, Francis J. Petrie Collection, Niagara Falls Public Library Digital Collections, Record ID 94932, probable date, post-1939.

Figure 30 View looking southwest towards original Old Fort Erie parking lot, probable date late 1940s/early 1950s.

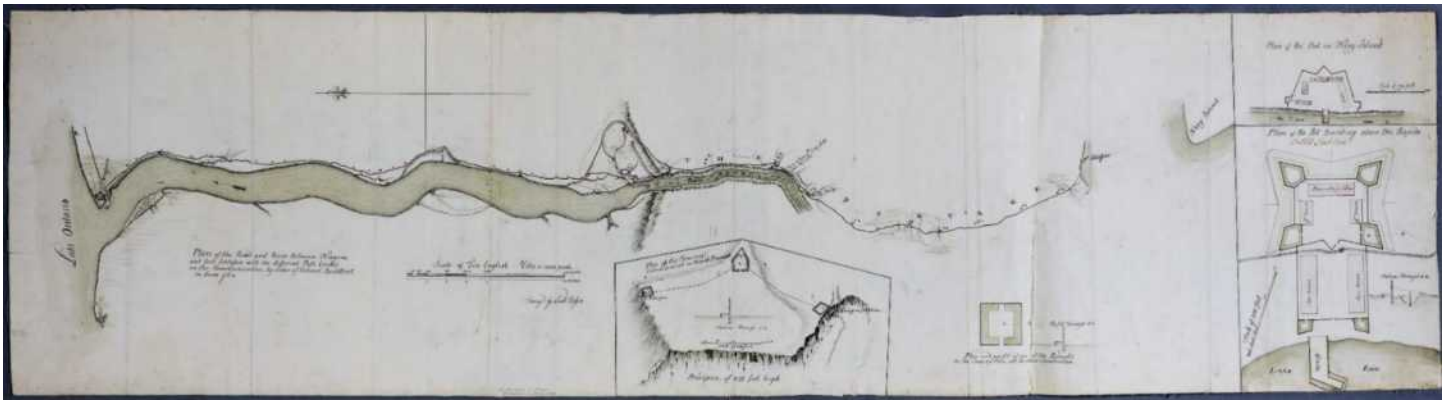


Figure 31 Plan of the road and river between Niagara and Fort Schlosser with the different posts erected on the communication, by order of Colonel Bradstreet in June 1764. Surveyed by Lt. Bernard Ratzer. William L. Clements Library, University of Michigan Thomas Gage papers

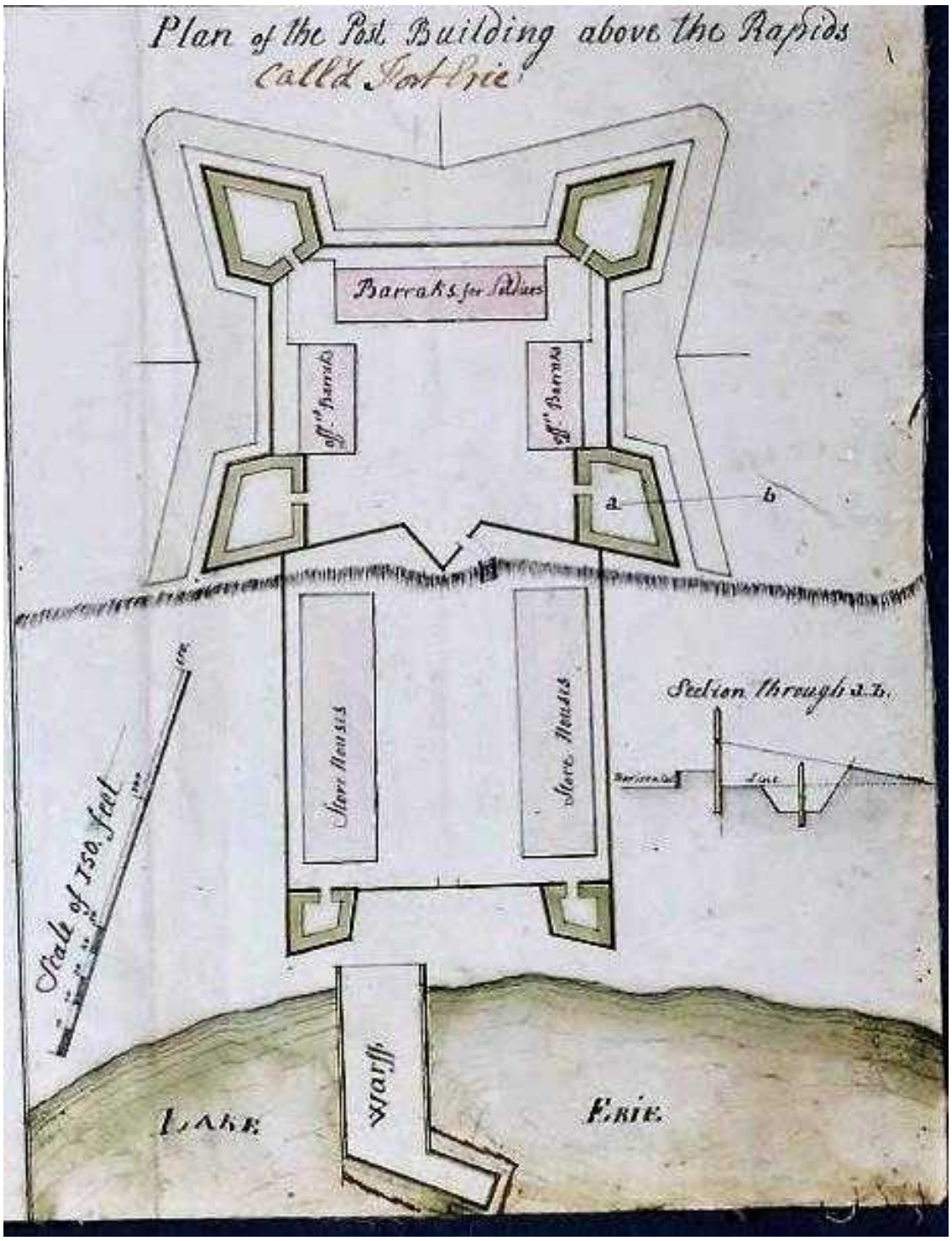


Figure 32 Detail of Ratzer plan, 1764 showing proposed Fort Erie.

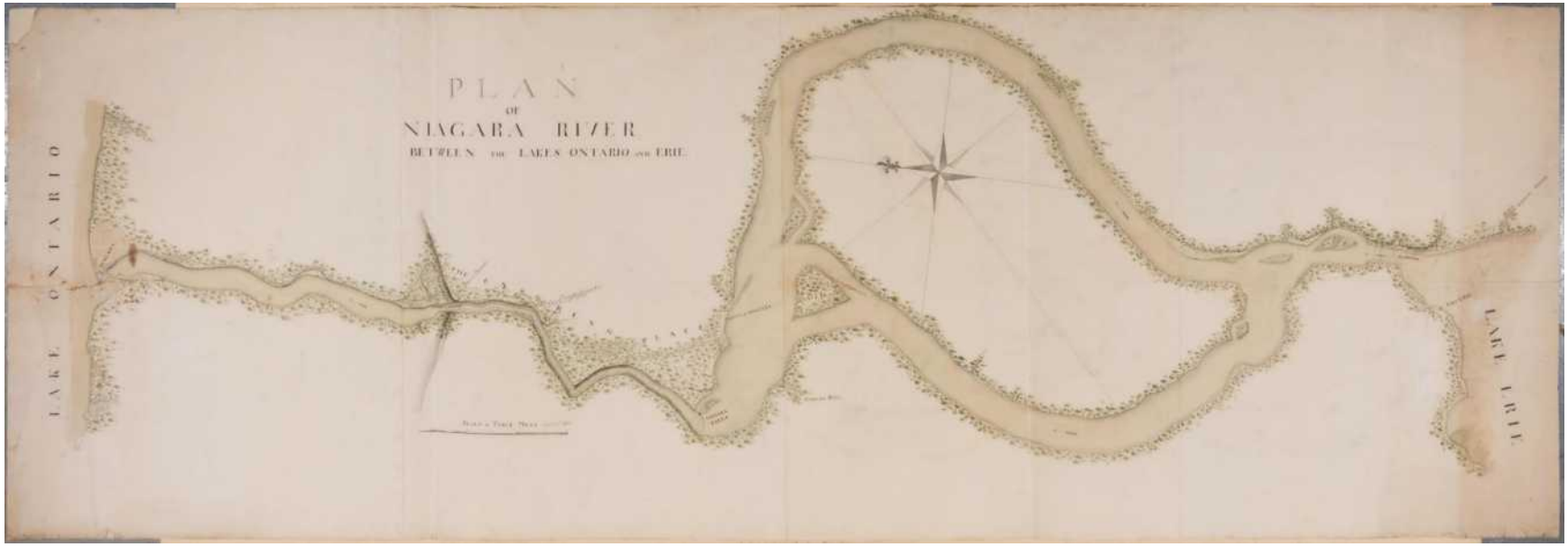


Figure 33 Plan of Niagara River between the Lakes Ontario and Erie. Bernard Ratzer July 10, 1764 William L. Clements Library, University of Michigan, Thomas Gage papers

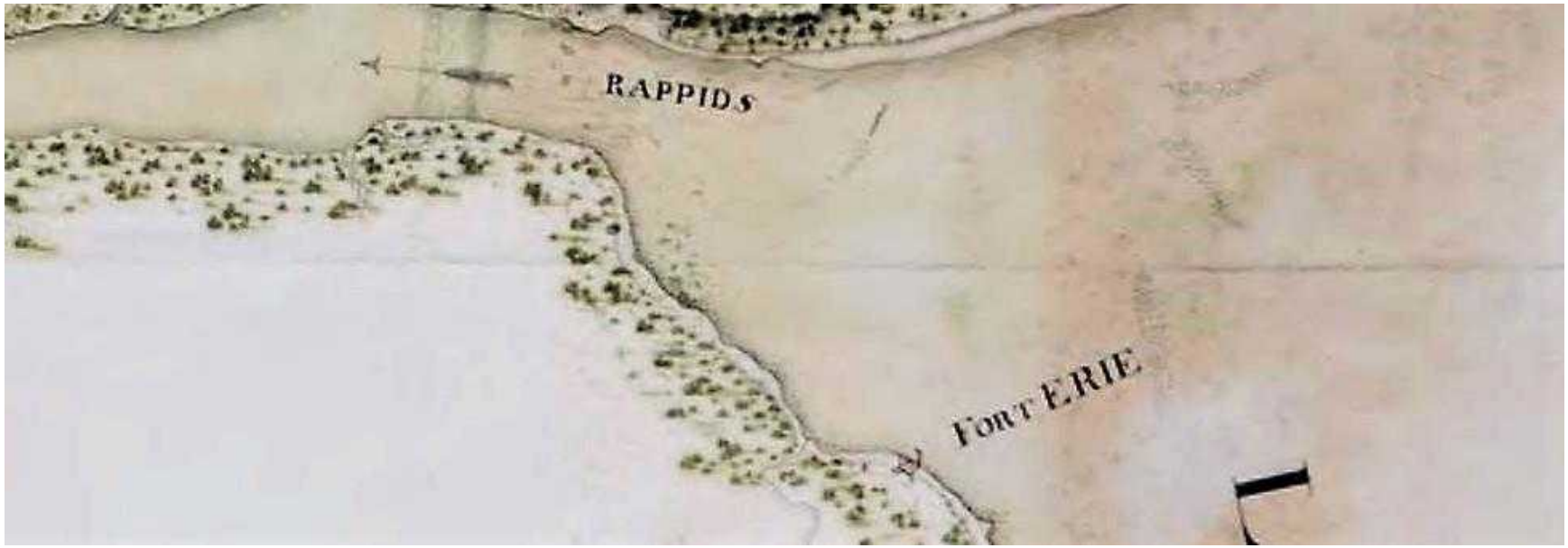


Figure 34 Detail of Plan of Niagara River between the Lakes Ontario and Erie. Bernard Ratzer July 10, 1764 showing position of Fort Erie on the lakeshore.

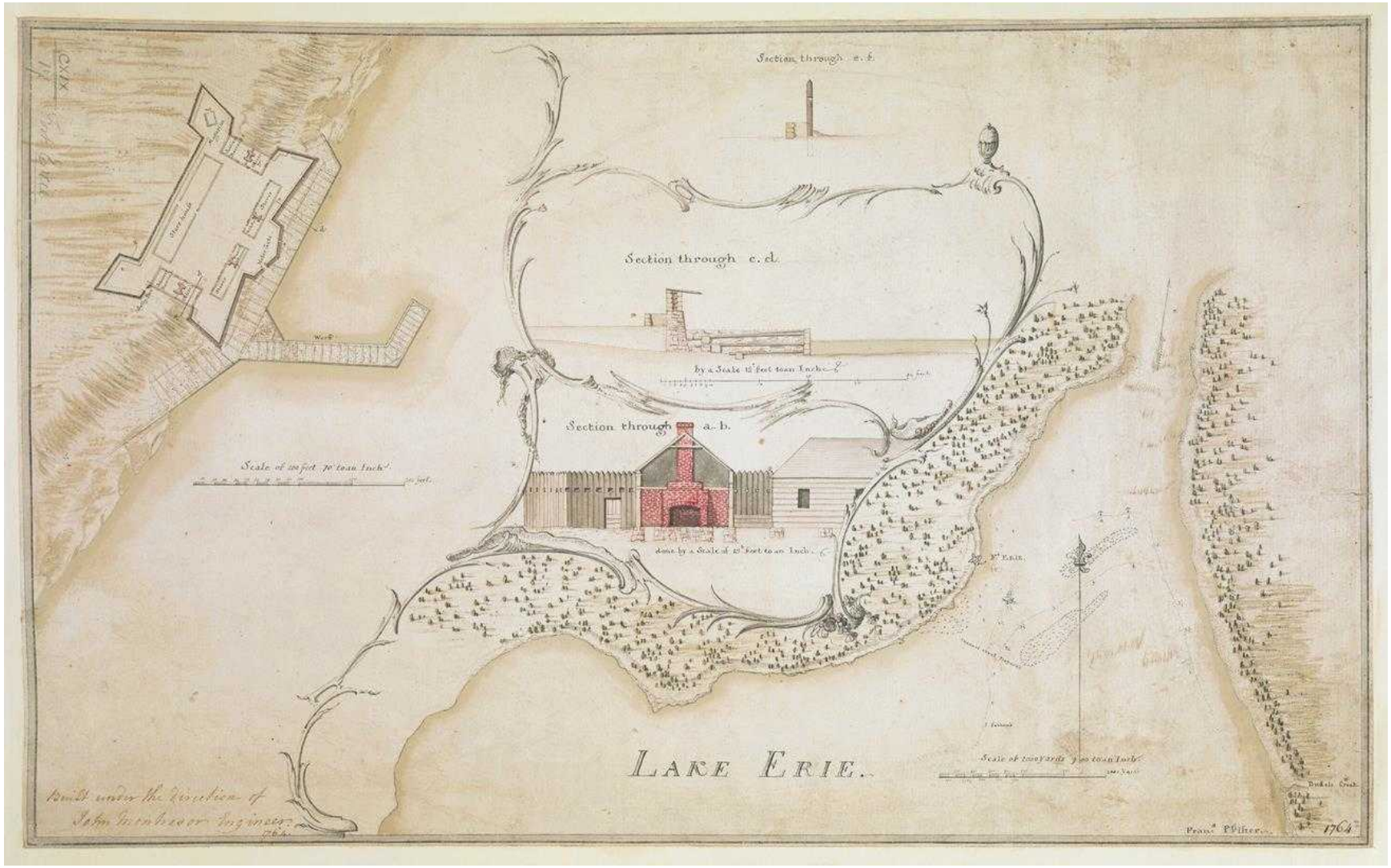


Figure 35 Fort Erie – 'Built under the direction of John Montresor, Engineer, 1764' by Francis Pfister 1766

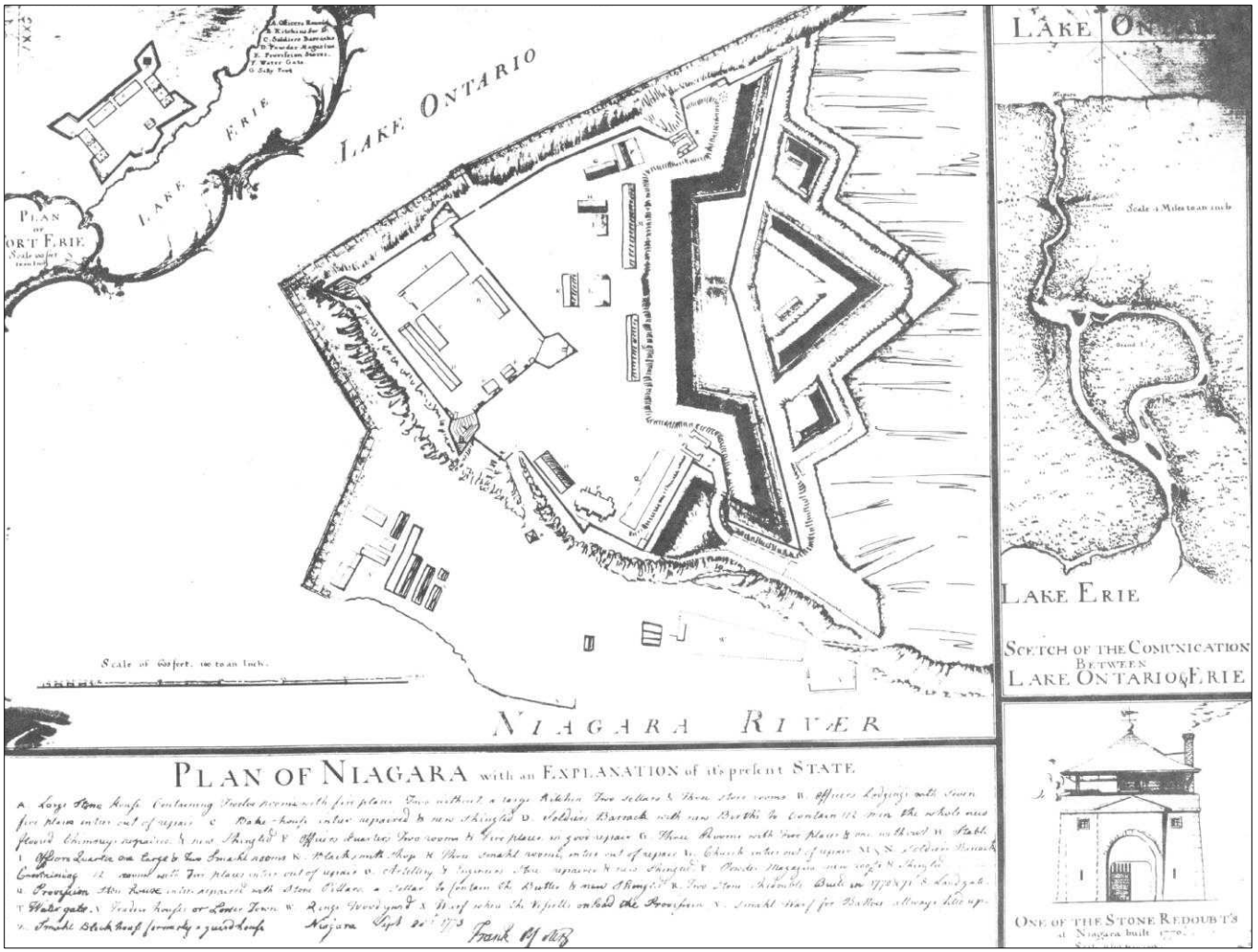


Figure 36 Plan of Niagara, Fort Erie Inset, 1773, Francis Pfister, British Library, Crown Maps, cxxi, 76.

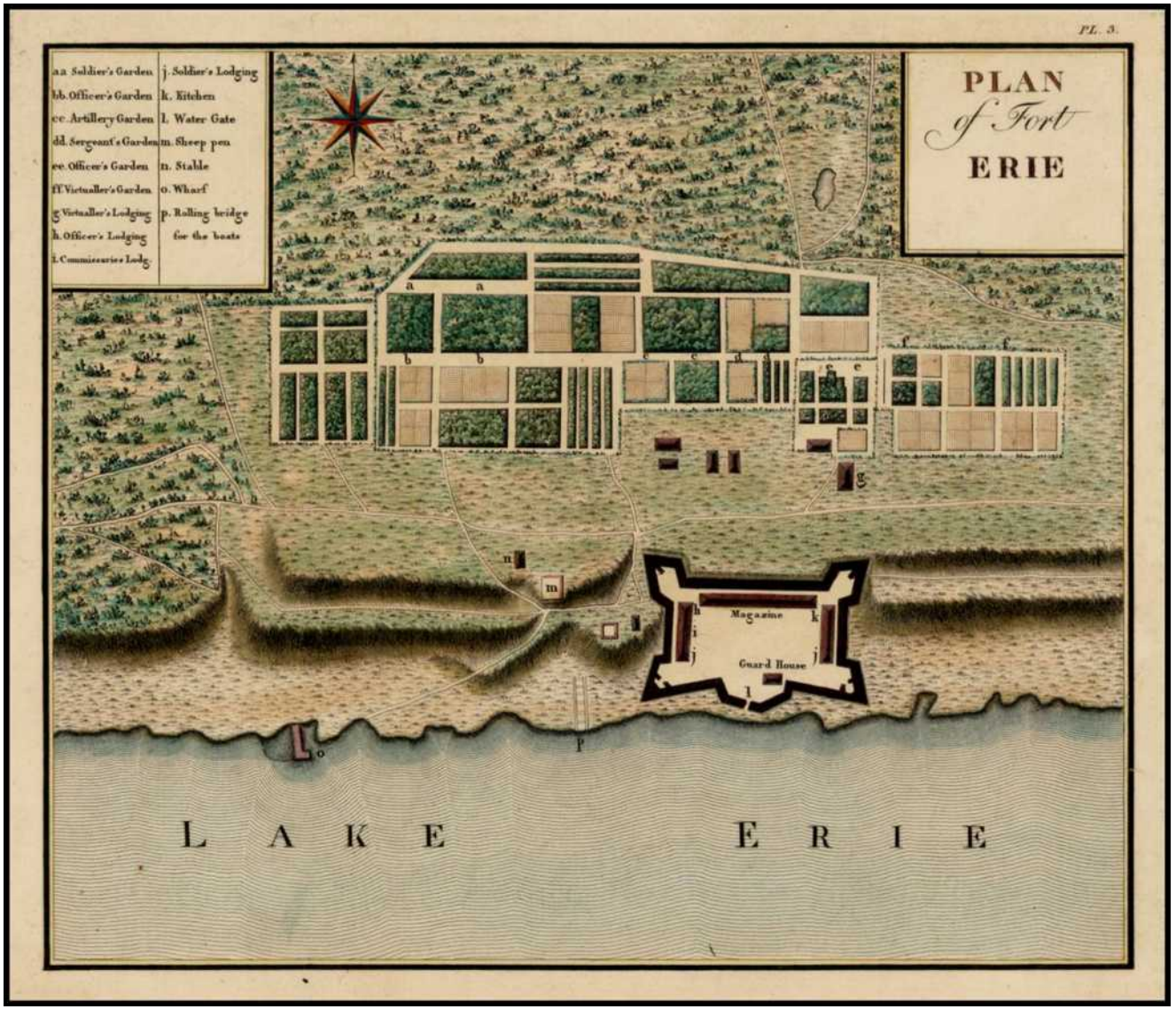


Figure 37 Plan of Fort Erie, by George Henri Victor Collot, dated 1796 - probably in error. Research by J. Triggs suggests this plan dates between 1773 and 1790.

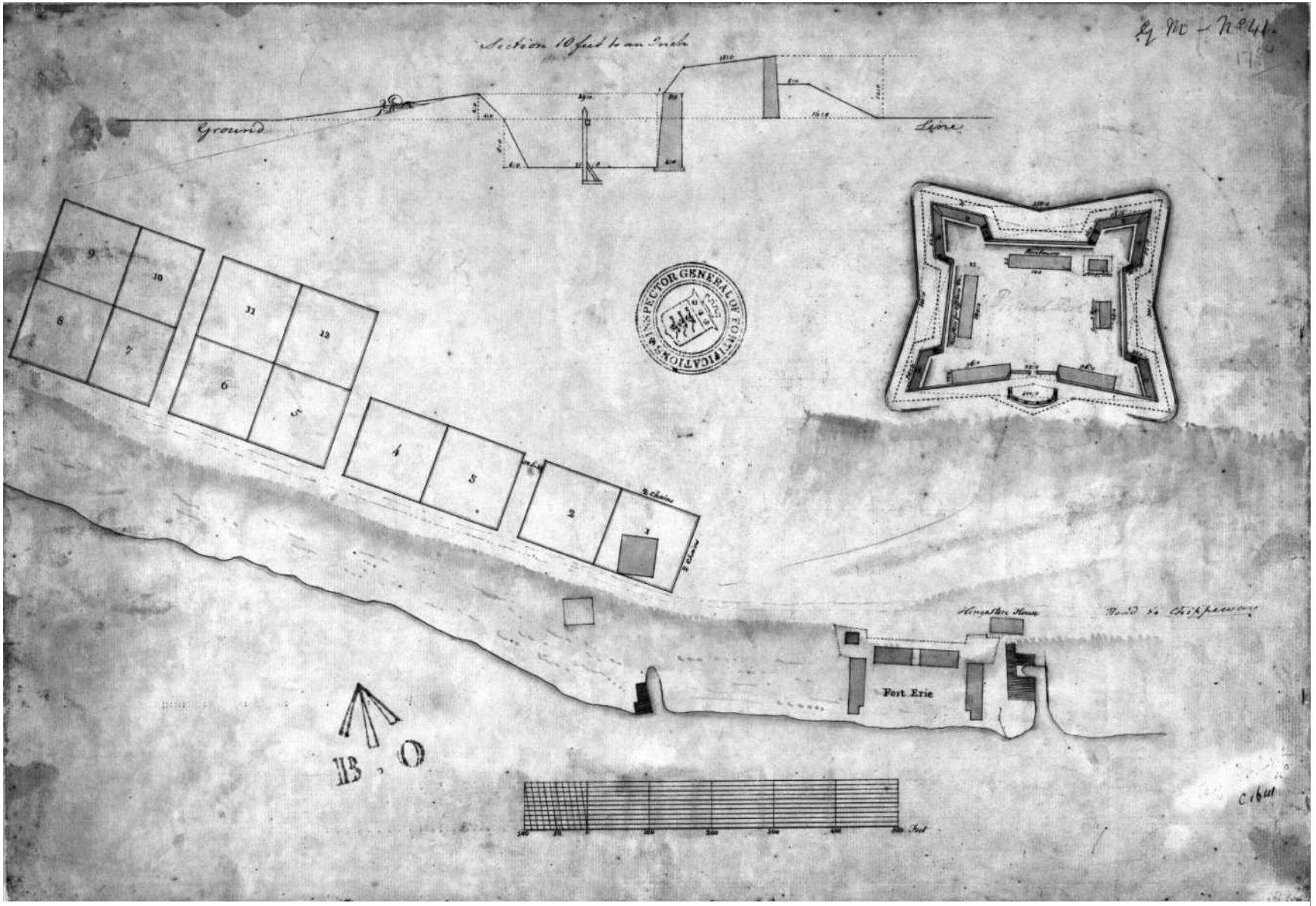


Figure 38 Plans of Proposed Fort Erie, 1794 showing first Fort Erie on lakeshore and lots for merchants and civilians (to the left of the 2017 excavation area). Road to 'Chippeway' is shown (Lakeshore Road).

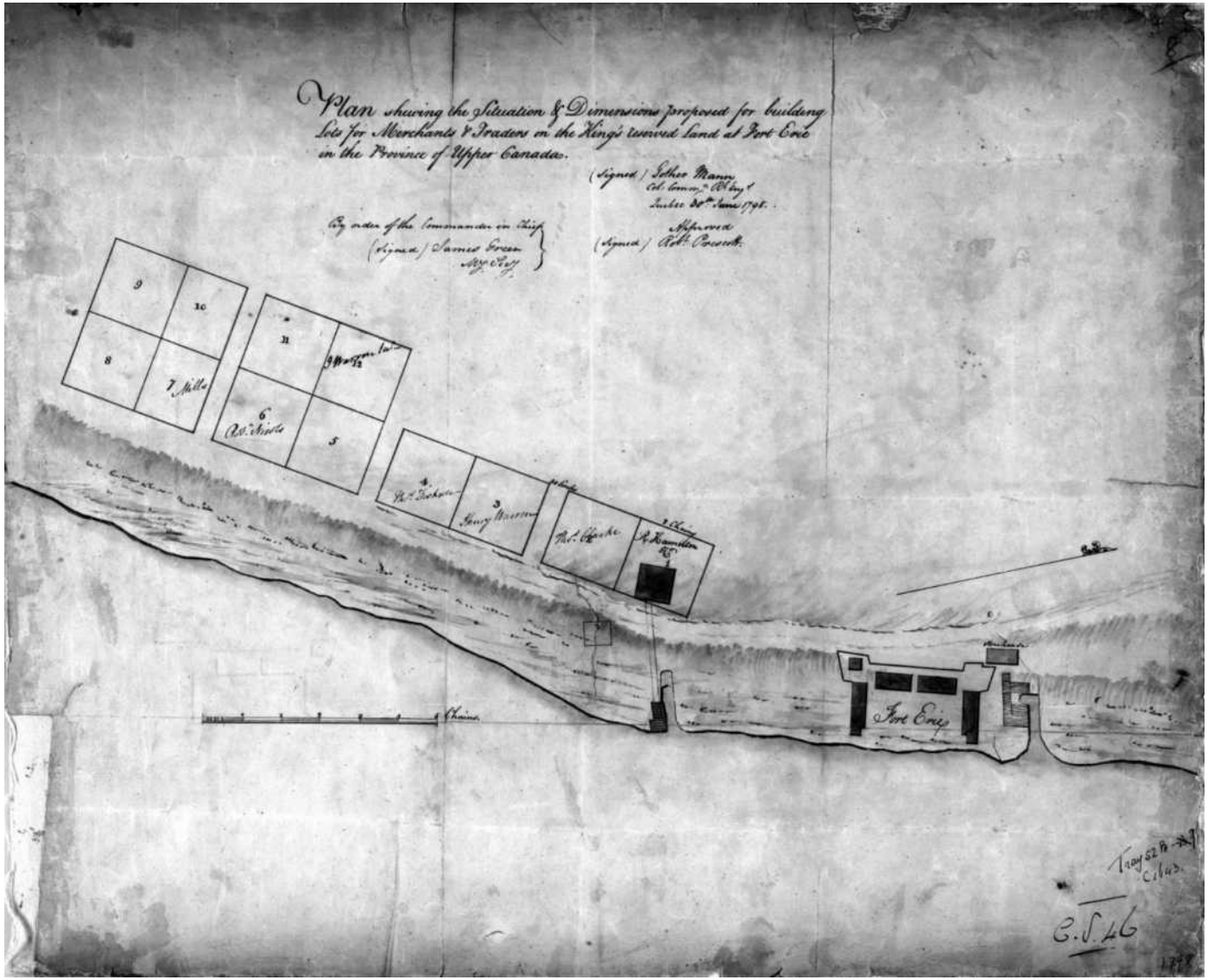


Figure 39 'Plan showing the Situation and Dimensions proposed for building Lots for Merchants and Traders on the King's reserved Land at Fort Erie in the Province of Upper Canada'. Gother Mann, 1798.

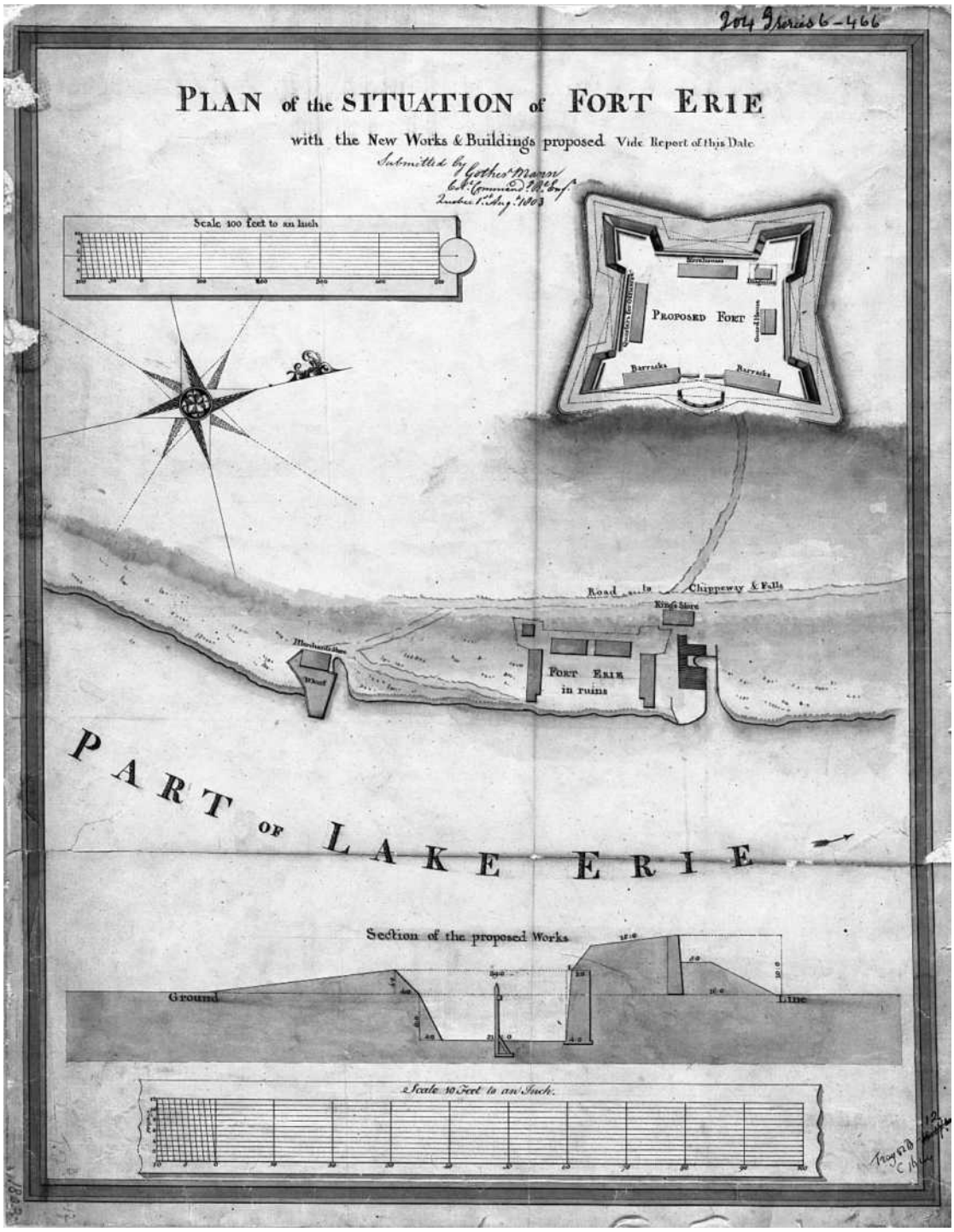


Figure 40 Plan of the Situation of Fort Erie with the New Works & Buildings proposed', Gother Mann, 1803.

Appendix D
Metal Detecting Survey

Curtis Garde

AR452 - Advanced Field Archaeology

June 12, 2017

Introduction

The Old Fort Erie Field School is a project lead by Dr. John Triggs of the Archaeology and Heritage Studies department at Wilfrid Laurier University. The Field School is a for-credit course that is run every two years, with previous digs in 2012, 2013, and 2015. This metal detecting survey was completed as a part of the AR452 advanced field course which is run concurrently with the regular AR219-FE course. It was conducted by two advanced students: Curtis Garde and Ty Martinec, with assistance from Owen Harvey and John Triggs. The survey was completed over the course of four days in May of 2017.

The goals of this survey are as follows:

1. To experiment with the effectiveness of a metal detector in detecting buried metal artifacts and determining the metal type and artifact type without excavation
2. To investigate the distribution of shot within the field of fire on the north side of the American earthwork constructed in June 1814.

A specific area of interest is to identify sub-surface ferrous objects which can be interpreted as artillery shot such as cannon balls and mortar bomb fragments which were fired by the British on the American position during the siege Period in 1814. The earthwork, which can still be seen on the landscape today, was created by the American army as a defensive construction to cover their camp from incoming fire from the British batteries to the north. Written descriptions describe cannon balls embedding themselves into the sides of the earthwork and it is reasonable to believe that other shot may have landed in front of the earthwork as well.

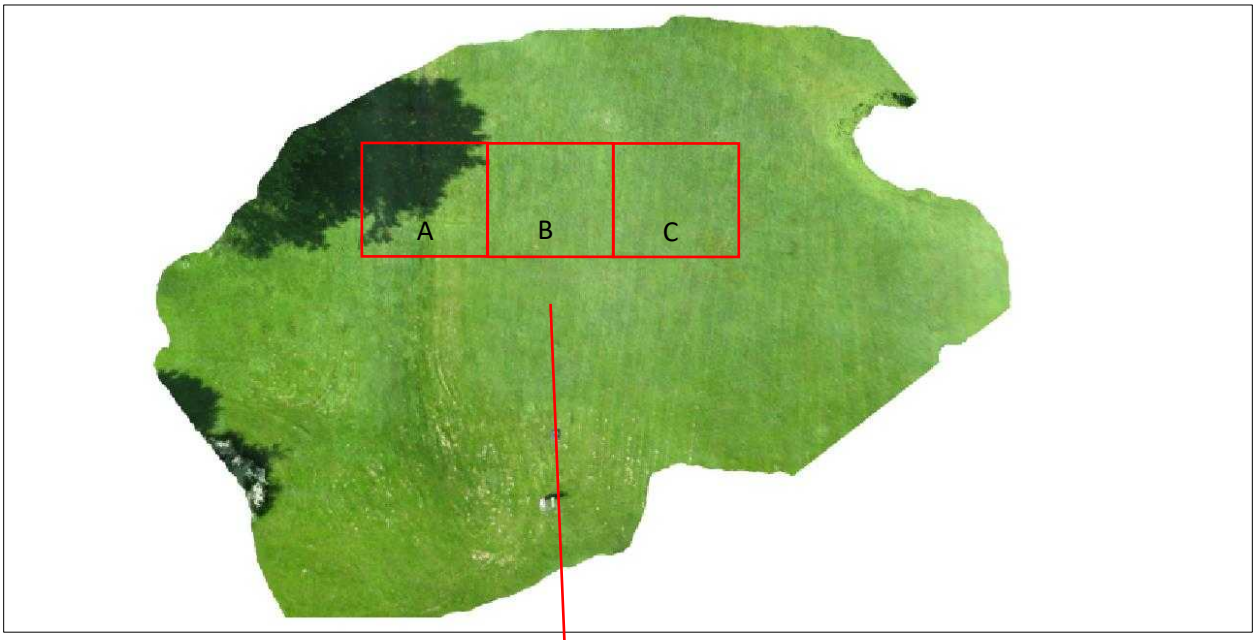


Figure 1 Drone overhead view at altitude of 30 metres showing 10 x 10m survey sectors referred to in report. The ditch for the American-built earthwork constructed in June 1814 is visible to the left (slightly shaded area) where it is intersected by Sector A. The open field of fire is to the right or north of the earthwork outside the America encampment (north to right). (Figure courtesy of J. Triggs.)

Figure 2 Aerial view of excavation Areas from 2012 showing 3 survey Sectors where metal detecting survey took place on June 1, 2, and 5, 2018.

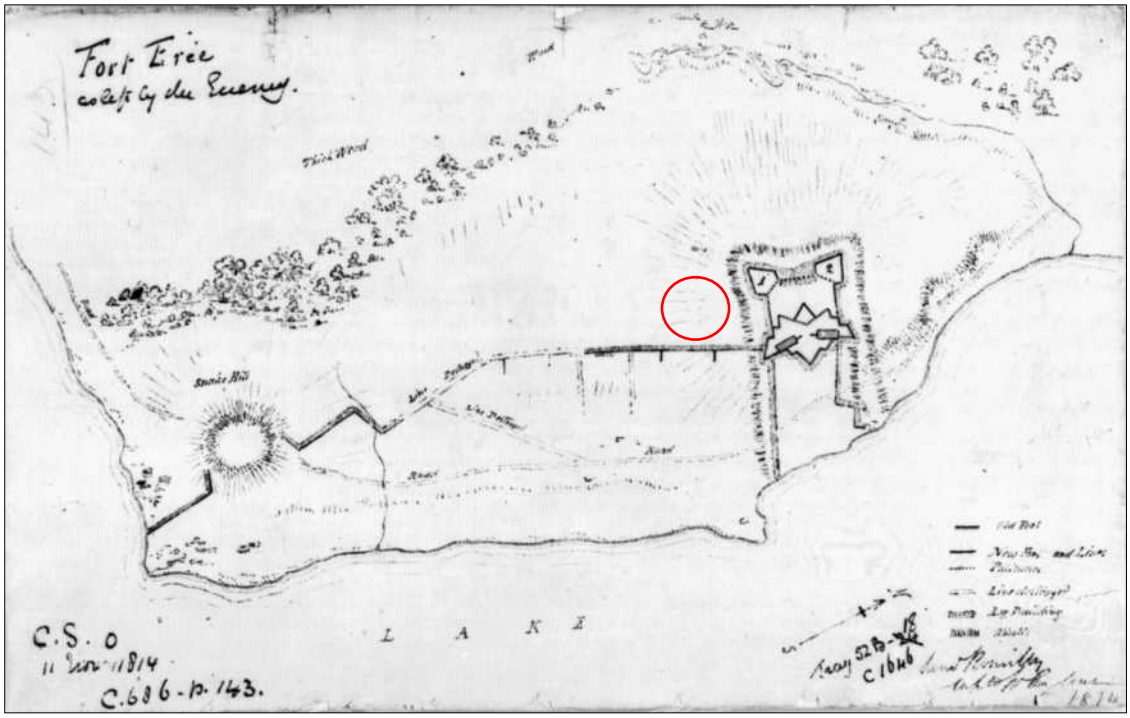


Figure 3 Romilly Map, 1814 showing Fort Erie after the withdrawal of American troops in November 1814. The area where the metal detecting survey took place is to the north of the American defensive earthwork outside the encampment.

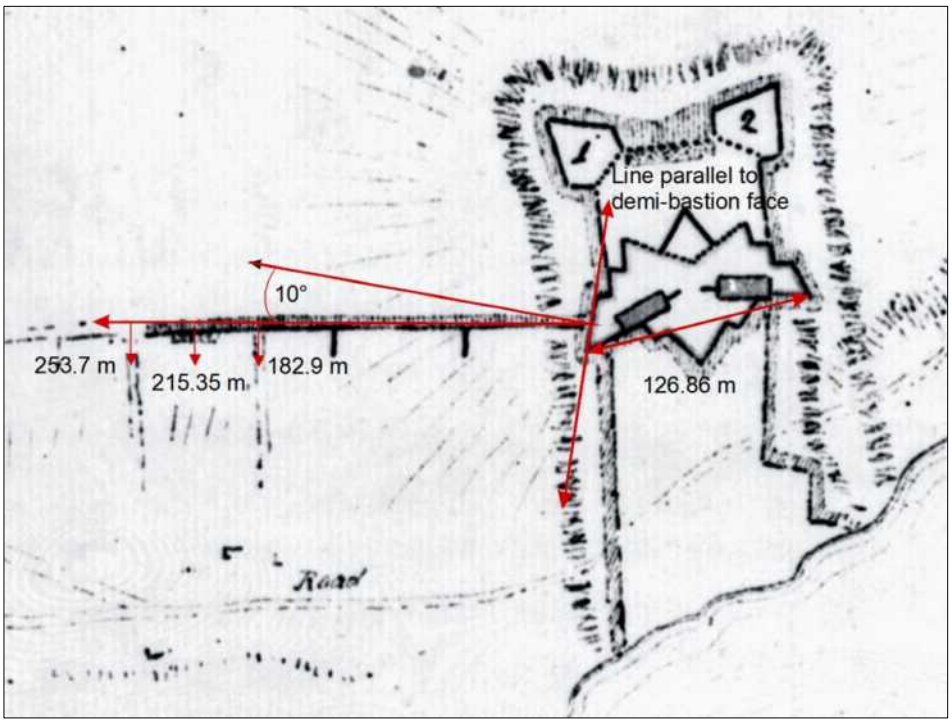


Figure 4 Detail of above map "Fort Erie as left by the Enemy Nov. 10, 1814" showing calculations used to establish the excavation grid parallel to the earthwork.

Figure 5 Excavation Units in Fanning's Battery excavation area 2012 and sectors for metal detecting survey.

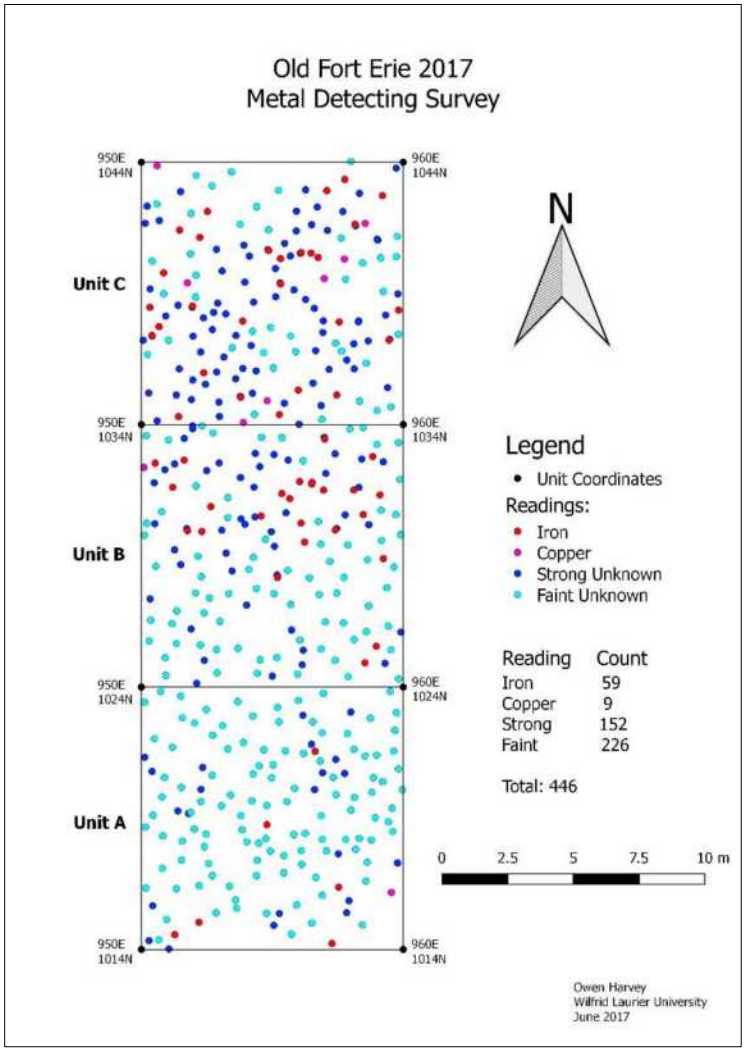


Figure 6 Plan of Survey Area showing readings.

Materials

The materials and equipment used are as follows:

1. To plot three Units on the grid:
    a. 1 transit
    b. 8 plastic tent pegs
    c. 1 hammer
    d. 1 long measuring tape

2. To conduct the survey:
    a. An XP DEUS Metal Detector with software version 4.0
    b. 1 long measuring tape
    c. Approximately 150 plastic flags
    d. Flagging tape
    e. 1 Marker to write flag numbers
    f. Various coloured straws to mark metal types

Note that all materials must not be metallic to avoid interference with the detector readings

3. To document the results:
    a. A notebook to record metal detector readings for each hit
    b. A drone to photograph the finished Unit
    c. A Real Time Kinematic (RTK) Unit to map each flag

Methodology

Metal Detector Settings

- Program: 9 – Hot
- Discrimination: 0.0
- Sensitivity: 90
- Frequency: 17.8
- Iron Volume: 5
- Reactivity: 3
- Audio Response: 3

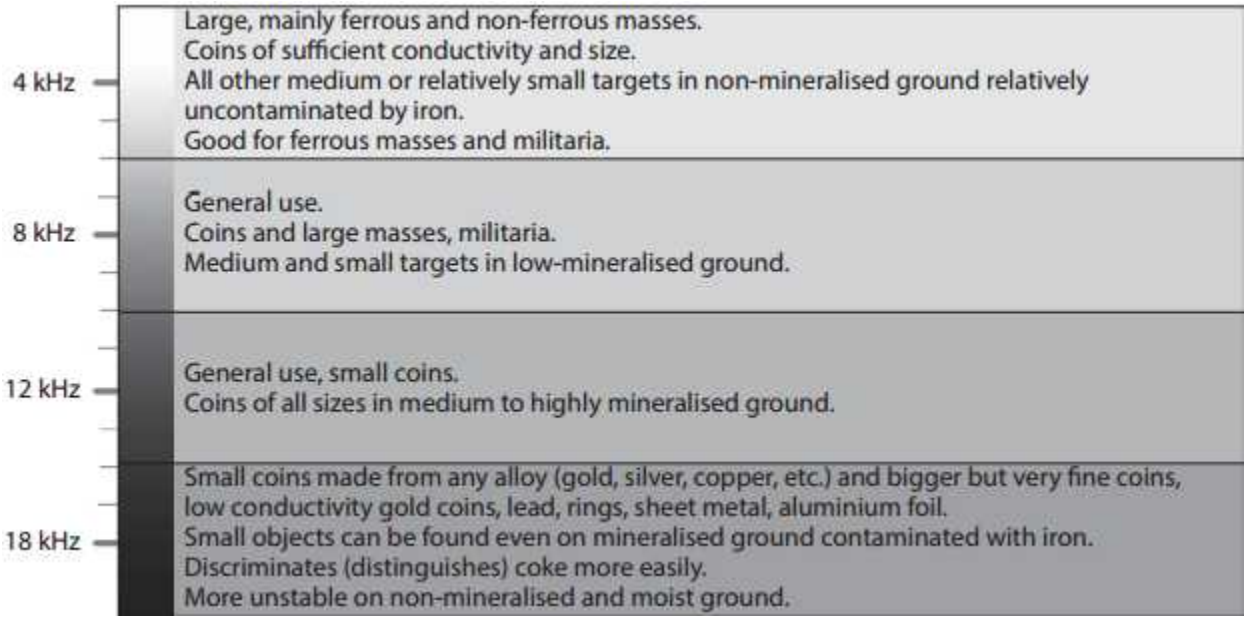
Settings Explained

When initially setting up the metal detector for this survey, we decided to use the new version 4.0 program 9 – Hot because it provided fairly consistent readings on that terrain, and it gave us an XY grid pattern as well as a number reading. Other programs like Dry Beach may also have been successful. In the Dry Beach program, as well as others, there is a horseshoe shaped image which shows the strength of ferrous signals on the left, and the strength of "good" signals on the right.

We decided to reduce the Discrimination setting to 0, as ferrous materials are more easily detected when the discrimination is low, as the setting effectively ignores signals from "rejectable" metal types.

The Sensitivity setting was left at the default setting of 90. A higher sensitivity is more likely to pick up interference in the ground from conductive soil, electromagnetic interference, or from large metal objects in the area like fences or power lines.

We used the default maximum frequency setting of 17.8, although it may have been useful to decrease the frequency to better detect large ferrous masses.



Frequency Chart from the DEUS Manual

The Iron Volume setting was increased to the maximum of 5 in order to make the audio tones of ferrous materials as loud as other metal types.

The Reactivity setting was left at the default of 3, although we may have had different results on a lower setting. A low reactivity setting essentially detects iron for a longer Period of time, with the risk that the iron signal will cover that of another metal nearby.

0	Large masses and coins, in ground uncontaminated by iron.
1	Large masses and coins, in ground with little iron contamination, and general use.
2	General use, and mineralised soils contaminated with iron.
3	Difficult soils contaminated with iron, hot rocks, etc.
4/5	Very difficult soils, highly contaminated with iron and hot rocks.

Reactivity Chart from the DEUS Manual

The final setting that was considered is the Audio Response setting. It was left at the default of 3. By increasing the Audio Response, the signals from small or deep targets will be amplified. However, this does not increase the depth and it may increase the detector's response for false signals like in the iron-contaminated soil.

Ground Truthing

Before the metal detecting survey could be done we needed to gain some experience with the machine. During the test pitting survey earlier in the month, the metal detector was used for ground truthing. Test pit locations were first scanned and their readings recorded. Once the test pit had been dug, the metal objects were associated with their previous reading.

Procedure

The first step in setting up the grid was to find a previously established baseline from the 2012 excavation. Using the metal detector, we were able to find the steel spikes which had become buried over time. The transit was then set up over one of the spikes as its coordinates were known from the previous excavation. Using the transit to maintain straight lines, tent pegs were placed at 10 meter intervals off of the baseline, using the tape to measure the distance. A total of 8 pegs were hammered in, making three 10 x 10 metre survey sectors which were labeled A, B, and C, going from south to north. To begin a Unit, the tape was stretched between two pegs on the west side, and a flag was placed at each metre (including zero) to use as a reference point when walking each transect. The tape was then moved to the east side from which each transect was started. While walking each transect, the metal detector was swept 1m across to cover the whole distance. Upon getting a definitive reading, the pinpoint function was used to precisely find the location of the metal object and a flag was then placed at the spot. The number and XY grid readings were recorded, as well as the transect number and the flag number for each hit. When the metal detector gave a definitive reading, a coloured straw would be placed on the flag depending on the metal type.

- Blue straws were used when readings were definitely ferrous materials;
- Orange straws were used when readings were definitely copper-alloy materials;
- Pink straws were used when a strong reading was picked up, but the metal type could not be distinguished;
- Blank flags, (flags with no straws) represented a faint reading, which is either a very small object, or a deep target.

Each flag was then marked with flagging tape with the flag's number and the number reading from the metal detector. Flagging tape was used opposed to writing on the actual flag so that the flags could be reused in the next Unit. Once a survey sector was completed, aerial photographs were taken using the drone. The RTK Unit was then used to map every flag on a coordinate system and assigned categories based on the same metal type distinctions used for the coloured straws. As flags were mapped, they were removed for use in the next Unit.

Figure 7 Survey sector A view looking grid south. Flags indicate locations within the 10 x 10 metre sector which had readings of varying strengths.

Figure 8 Survey sector A view from 10 metres using drone (north to right of image). Flags indicate locations within the 10 x 10 metre sector which had readings of varying strengths. (June 1)

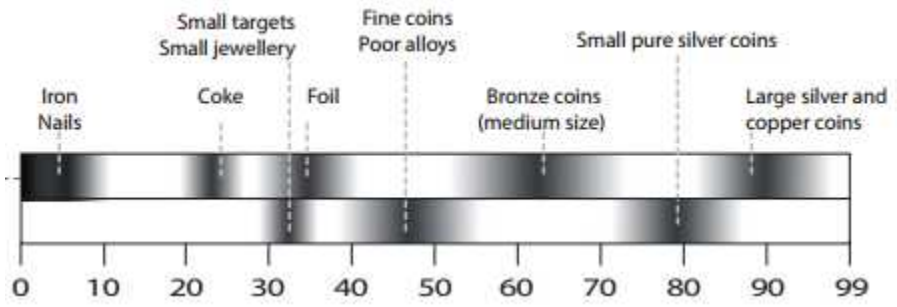
Figure 9 Survey sector B view from 10 metres using drone (north to upper left of image). Flags indicate locations within the 10 x 10 metre sector which had readings of varying strengths. (June 2)

Figure 10 Survey sector C view from looking grid west. Flags indicate locations within the 10 x 10 metre sector which had readings of varying strengths. (June 5)

Ground Truthing Data

Metal Object	Number Reading	XY Reading	Audio Tone
Deep Scrap Iron	No	Small Central Dot	Faint Low Squawk
Iron nails	0	Negative	Low Squawk
Steel spike	6	Negative	Low Squawk
Aluminum Cans	39, 45, 53	Vertical Positive	Squawky High Pitch
Brass Button	59	Small Horizontal Line	Squawky High Pitch
Galvanized Steel Screw	69	Small Horizontal Line	High Pitch
Bottle Cap	75	45 Positive	High Pitch
Lead Musket Ball	83	Squiggle	High Pitch
Silver Coin	84	45 Positive	High Pitch
Copper-Alloy Penny	96	Vertical Positive	Very High Pitch

Detector Readings Chart from DEUS Manual



Survey Counts

Unit A

Unit	Count of Metal Type
A	**Total: 141**
Copper	1
Faint	
Signal	110
Iron	6
Unknown	24

Unit B

Unit	Count of Metal Type
B	**Total: 148**
Copper	2
Faint	
Signal	75
Iron	23
Unknown	48

Unit C

Unit	Count of Metal Type
C	**Total: 157**
Copper	6
Faint	
Signal	41
Iron	30
Unknown	80

Observations

Unit A

A vast majority of hits in Unit A were from faint signals, which are either small fragments, probably of iron, or deep targets. In two areas along transects 2 and 3 there were large areas with a uniform faint signal which very well could be large, deep targets like cannonballs. The lack of strong signals in Unit A may be related to the soil on the mound. Considering that the earthwork has sunk over time, metal artifacts here seem to be particularly deep. The signals could also be skewed by contamination in the soil. On the slope of the hill there were a number of strange faint signals which could not be pinpointed. As an audio tone, they were short and crackly. This is assumed to be caused by iron oxide contamination within the soil. The contamination only exists on the north face of the earthwork and dissipates when moving further into the field to the north. The unknown metal types which gave strong signals in Unit A range from 31 to 81 with most concentrating around 50. These may be buttons, coins, or other non-ferrous objects, or they may be modern garbage. Two hits of 80 and 81 meet the reading for lead shot. Definite iron signals make up 6 (4.3) of the signals from this Unit, plus an unknown amount of iron which has been detected as a faint signal.

Unit B

Unit B had considerably more strong signals including more ferrous signals. This does not necessarily mean that this area has more metals, just that there are more which are closer to the soil surface. The unknown metal readings from this Unit came up with nearly every number between 32 and 87. Again, the metal or object type can be guessed at, but only iron is certain. Four readings between 78 and 83 may be lead shot. In this Unit definite iron signals make up 23 (15.5) of the total signals, plus an unknown amount of iron as faint signals.

Unit C

This Unit had the greatest number of successful hits. In particular, 81 (51.6) of hits were various unknown metal types. Again, there may have been more strong readings because of a shallower soil depth, but there were also more readings in general. There seemed to be a few hotspots, particularly towards the north side of the Unit along transect 7. These hotspots may be better visualized in an RTK map and aerial photography. There were also 6 points which were designated as copper, although they may be anything small and highly conductive. There is a strong possibility that they are pennies. Hit 347 was a fairly weak signal, but it gave a curved XY grid pattern that we had never seen before. There may have been interference caused by multiple metals in the same area. This Unit had 30 (19.1) iron signals, thus demonstrating an increase in distinguishable iron hits when moving north away from the earthwork.

Discussion

Ground truthing was a useful step in learning the intricacies of the metal detector. We learned about the importance of metal interference as the detector would pick up nearby shovels, metal parts on people's shoes, and apparently even body parts. As we later learned, the metal detector unknowingly was picking up the titanium rod in Carli Perri's leg. We learned that iron consistently gave a faint squawking tone, a negative line on the XY grid (which is unique to ferrous materials) and a low number, usually between 0 and 6. By ground truthing during the test pitting survey, we were only able to gain information about the metals that came out of those test pits, which was not a great variety. There are still holes in our knowledge of what metals correlate with what readings. While iron is known, it would be useful to better understand the readings for other historic artifacts that we come across like lead shot, brass buttons and historic coins. Apparently ceramics can also sometimes be picked up with the detector, either because of the lead glaze, or because they give off a slight magnetic signal having been highly fired. A more extensive list of metal types could be created by using the detector on metal artifacts that have already been recovered during the excavation, although they may give a different signal in the ground than they do out of the ground.

We initially believed faint signals to be iron objects which were just beyond the range of the detector, but this was not true as various other metal types came out of deep test pits. The effective range for receiving strong signals is approximately 15cm deep with the small coil, and the maximum range for picking up faint signals is approximately 20cm. There is a larger coil which theoretically would give better depth because the coils send and receive signals in a cone pattern. While the larger coil did work, we only used the small coil for consistency as we only had experience with the small coil. It would have been interesting to test the larger coil against the readings that were picked up with the small coil to see what difference it makes, but the survey took more time than expected and we were not able to do a second pass.

For the actual 10x10m Units, we initially expected less than 100 hits per square and we quickly realized how rich the area is in metals as we got counts of 141, 148, and 157 in Units A, B, and C respectively. A transect took between 15 and 20 minutes to complete, and each Unit took around three hours to complete. Initially we had designated blue straws as iron, orange straws and copper, green straws as lead, and pink straws as faint signals. This straw system was problematic as pink straws quickly ran out, and there were no definite lead signals. It was later changed so both pink and green straws were used for unknown metal types, and faint signals were left as empty flags. One factor to consider in the survey is how water effects metal detector readings. The first two Units A and B were done on wet grass following rainy days. After browsing a number of metal detecting forums on the subject, the consensus seems to be that moist soil allows the detector to pick up deeper targets, but it also increases the chance that iron or contaminated ground will obscure other targets. Thus, dry ground allows for better

target separation, which may be related to the larger number of “good” unknown metal targets in Unit C. Once the Units were complete, the drone and RTK Unit were used to document the flag placement. However, the photos are still on the drone camera, and the RTK data is still on the RTK, otherwise they would be included in this report.

Conclusions

The three survey Units turned out to be very rich in metals, resulting in a total of 447 hits across the three 10x10m Units. There was a large variety of readings representing a large variety of metal types. The metal detector hits could be finding coins, metal pieces from clothing, metal pieces from weaponry, and various types of shot from small arms and artillery. The metal detector is particularly good at distinguishing iron, largely because iron is considered a “poor” metal that is not worth taking. This allows us to look at the distributions of subsurface iron without excavating as long as the discrimination setting is low, and the iron volume is up. At least two points along the side of the earthwork may have been deep iron shot, or a uniform scatter of iron. The slope had a large amount of what seems to be iron contamination, suggesting that large masses of iron have oxidized into the soil over time. Ultimately, the metal detector was quite successful at finding metal objects in this area, and while there is evidence of iron shot in the test Units, no individual pieces of iron shot were distinguished for certain.

Figure 11 Instruction on the metal detectors used in the survey on June 1, 2, and 5, 2018.

Figure 12 Curtis Garde (left) and Ty Martinec, Advanced Field Archaeology AR452 students, conducting a preliminary test of the survey area on June 1.

Flag	Survey Sector	Transect	Metal Type	Reading	XY Reading	Suggested Source	Other Info
1	A	1	Faint Signal				
2	A	1	Iron	2	Negative		
3	A	1	Faint Signal				
4	A	1	Faint Signal				
5	A	1	Unknown	62	Positive	Brass	
6	A	1	Iron	None	Negative		
7	A	1	Iron	0	Negative		
8	A	1	Unknown	31	V. Positive	Aluminum	
9	A	1	Faint Signal				
10	A	1	Unknown	57	Positive	Brass	
11	A	2	Unknown	71	Positive		
12	A	2	Unknown	80	Positive	Silver/Steel	
13	A	2	Faint Signal				
14	A	2	Faint Signal				Large Target
15	A	2	Unknown	75	Positive	Aluminum	
16	A	2	Faint Signal				
17	A	2	Faint Signal				
18	A	2	Faint Signal				
19	A	2	Faint Signal				
20	A	2	Unknown	75	Positive	Aluminum	
21	A	3	Copper	96	H. Positive		
22	A	3	Faint Signal				Large Target
23	A	3	Iron	None	Central Dot		low squawk of iron
24	A	3	Faint Signal				
25	A	3	Faint Signal				
26	A	3	Faint Signal				
27	A	3	Faint Signal				
28	A	3	Faint Signal				
29	A	3	Faint Signal				
30	A	3	Faint Signal				
31	A	3	Faint Signal				
32	A	3	Faint Signal				
33	A	3	Unknown	31	Positive	Aluminum	
34	A	4	Unknown	81	Positive	Silver/Steel	
35	A	4	Faint Signal				
36	A	4	Faint Signal				
37	A	4	Unknown	51/54			

38	A	4	Faint Signal				
39	A	4	Faint Signal				
40	A	4	Faint Signal				
41	A	4	Faint Signal				
42	A	4	Faint Signal				
43	A	4	Faint Signal				
44	A	4	Faint Signal				
45	A	4	Faint Signal				
46	A	4	Faint Signal				
47	A	4	Faint Signal				
48	A	4	Faint Signal				
49	A	5	Faint Signal				
50	A	5	Faint Signal				
51	A	5	Faint Signal				
52	A	5	Faint Signal				
53	A	5	Faint Signal				
54	A	5	Faint Signal				
55	A	5	Faint Signal				
56	A	5	Faint Signal				
57	A	5	Iron	None	Negative		low squawk
58	A	5	Faint Signal				
59	A	5	Faint Signal				
60	A	5	Faint Signal				
61	A	5	Faint Signal				
62	A	5	Faint Signal				
63	A	5	Faint Signal				
64	A	5	Faint Signal				
65	A	6	Faint Signal				
66	A	6	Faint Signal				
67	A	6	Faint Signal				
68	A	6	Faint Signal				
69	A	6	Faint Signal				
70	A	6	Faint Signal				
71	A	6	Unknown	45	Positive		
72	A	6	Faint Signal				
73	A	6	Faint Signal				
74	A	6	Faint Signal				
75	A	6	Faint Signal				
76	A	6	Faint Signal			Large Target	
77	A	6	Faint Signal			Large Target	

78	A	6	Unknown	36	V. Positive		
79	A	6	Faint Signal				
80	A	6	Faint Signal				
81	A	6	Faint Signal				
82	A	7	Faint Signal				
83	A	7	Faint Signal				
84	A	7	Faint Signal				
85	A	7	Faint Signal				
86	A	7	Faint Signal				
87	A	7	Faint Signal				
88	A	7	Unknown	75	Positive		
89	A	7	Faint Signal				
90	A	7	Faint Signal				
91	A	7	Faint Signal				
92	A	7	Faint Signal				
93	A	7	Faint Signal				
94	A	7	Unknown	50	Positive		
95	A	7	Faint Signal				
96	A	7	Faint Signal				
97	A	7	Unknown	80	Positive		
98	A	8	Faint Signal				
99	A	8	Faint Signal				
100	A	8	Faint Signal				
101	A	8	Faint Signal				
102	A	8	Faint Signal				
103	A	8	Unknown	43	V. Positive		
104	A	8	Unknown	48	V. Positive		
105	A	8	Iron	0	Negative		
106	A	8	Unknown	None	Small Central H. Line		
107	A	8	Faint Signal				
108	A	8	Faint Signal				
109	A	8	Faint Signal				
110	A	8	Faint Signal				
111	A	8	Faint Signal				
112	A	8	Faint Signal				
113	A	8	Unknown	47	V. Positive		
114	A	8	Faint Signal				
115	A	8	Unknown	53	Positive		

116	A	9	Faint Signal				
117	A	9	Faint Signal				
118	A	9	Faint Signal				
119	A	9	Faint Signal				
120	A	9	Faint Signal				
121	A	9	Unknown	50	V. Positive		
122	A	9	Faint Signal				
123	A	9	Faint Signal				
124	A	9	Faint Signal				
125	A	9	Faint Signal				
126	A	9	Faint Signal				
127	A	9	Faint Signal				
128	A	9	Faint Signal				
129	A	10	Faint Signal				
130	A	10	Faint Signal				
131	A	10	Unknown	37	V. Positive		
132	A	10	Faint Signal				
133	A	10	Unknown	48	Positive		
134	A	10	Faint Signal				
135	A	10	Faint Signal				
136	A	10	Faint Signal				
137	A	10	Faint Signal				
138	A	10	Faint Signal				
139	A	10	Faint Signal				
140	A	10	Faint Signal				
141	A	10	Unknown	60	V. Positive		
142	B	1	Faint Signal				
143	B	1	Unknown	70	Positive		
144	B	1	Iron	6	Negative		
145	B	1	Unknown	78	Positive		
146	B	1	Faint Signal				
147	B	1	Faint Signal				
148	B	1	Faint Signal				
149	B	1	Unknown	65	Positive		
150	B	1	Faint Signal				
151	B	1	Faint Signal				
152	B	1	Unknown	46	V. Positive		
153	B	1	Faint Signal				

154	B	2	Faint Signal				
155	B	2	Iron	6	Negative		
156	B	2	Faint Signal				
157	B	2	Faint Signal				
158	B	2	Unknown	35	V. Positive		
159	B	2	Faint Signal				
160	B	2	Faint Signal				
161	B	2	Faint Signal				
162	B	2	Faint Signal				
163	B	2	Unknown	48	Positive		
164	B	2	Faint Signal				
165	B	2	Faint Signal				
166	B	2	Faint Signal				
167	B	2	Faint Signal				
168	B	3	Unknown	46	V. Positive		
169	B	3	Faint Signal				
170	B	3	Faint Signal				
171	B	3	Faint Signal				
172	B	3	Faint Signal				
173	B	3	Faint Signal				
174	B	3	Unknown	60	Positive		
175	B	3	Unknown	51	V. Positive		
176	B	3	Faint Signal				
177	B	3	Faint Signal				
178	B	3	Unknown	71	Positive		
179	B	3	Faint Signal				
180	B	3	Faint Signal				
181	B	4	Faint Signal				
182	B	4	Faint Signal				
183	B	4	Faint Signal				
184	B	4	Faint Signal				
185	B	4	Faint Signal				
186	B	4	Faint Signal				
187	B	4	Faint Signal				
188	B	4	Faint Signal				
189	B	4	Faint Signal				
190	B	4	Faint Signal				
191	B	4	Faint Signal				
192	B	4	Unknown	47	Positive		

193	B	5	Faint Signal				
194	B	5	Iron	0	Negative		
195	B	5	Faint Signal				
196	B	5	Faint Signal				
197	B	5	Faint Signal				
198	B	5	Faint Signal				
199	B	5	Faint Signal				
200	B	5	Iron	0	Negative		
201	B	5	Unknown	44	V. Positive		
202	B	5	Faint Signal				
203	B	5	Unknown	50	V. Positive		
204	B	5	Faint Signal				
205	B	5	Unknown	83	Positive		
206	B	5	Faint Signal				
207	B	6	Faint Signal				
208	B	6	Faint Signal				
209	B	6	Unknown	33	V. Positive		
210	B	6	**MISCOUNT ?**				
211	B	6	Faint Signal				
212	B	6	Faint Signal				
213	B	6	Iron	0	Negative		
214	B	6	Unknown	41	V. Positive		
215	B	6	Faint Signal				
216	B	6	Faint Signal				
217	B	6	Unknown	70	Positive		
218	B	6	Unknown	70	Positive		
219	B	6	Faint Signal				
220	B	6	Unknown	75	Positive		
221	B	7	Faint Signal				
222	B	7	Faint Signal				
223	B	7	Faint Signal				
224	B	7	Iron	0	Negative		
225	B	7	Unknown	60	Positive		
226	B	7	Unknown	39	Positive		
227	B	7	Iron	0	Negative		
228	B	7	Faint Signal				
229	B	7	Iron	0	Negative		

230	B	7	Unknown	71	Positive		
231	B	7	Unknown	78	Positive		
232	B	7	Iron	0	Negative		
233	B	7	Unknown	59	V. Positive		
234	B	7	Unknown	62	Positive		
235	B	7	Unknown	36	V. Positive		
236	B	7	Faint Signal				
237	B	7	Iron	6	Negative		
238	B	7	Iron	4	Negative		
239	B	7	Iron	4	Negative		
240	B	7	Unknown	50	Positive		
241	B	7	Faint Signal				
242	B	7	Unknown	76	Horizontal		
243	B	7	Faint Signal				
244	B	8	Faint Signal				
245	B	8	Iron	5	Negative		
246	B	8	Unknown	52	V. Positive		
247	B	8	Iron	5	Negative		
248	B	8	Iron	1	Negative		
249	B	8	Copper	96	V. Positive		
250	B	8	Iron	5	Negative		
251	B	8	Iron	5	Negative		
252	B	8	Iron	0	Negative		
253	B	8	Iron	6	Negative		
254	B	8	Unknown	81	Horizontal		
255	B	8	Faint Signal				
256	B	8	Faint Signal				
257	B	8	Iron	3	Negative		
258	B	8	Faint Signal	88	Positive		
259	B	9	Unknown	41	Positive	Squiggle, Multiple Metals	
260	B	9	Iron	0	Negative		
261	B	9	Unknown	49	Positive		
262	B	9	Unknown	37	V. Positive		
263	B	9	Unknown	32	V. Positive		
264	B	9	Faint Signal				
265	B	9	Unknown	87	Positive		

266	B	9	Unknown	38	V. Positive		
267	B	9	Unknown	36	V. Positive		
268	B	9	Unknown	45	V. Positive		
269	B	9	Unknown	86	Horizontal		
270	B	9	Unknown	73	Positive		
271	B	9	Iron	4	Negative		
272	B	9	Unknown	43	V. Positive		
273	B	9	Unknown	53	V. Positive		
274	B	9	Iron	6	Negative		
275	B	9	Copper	98	Positive		
276	B	10	Faint Signal				
277	B	10	Faint Signal				
278	B	10	Faint Signal				
279	B	10	Faint Signal				
280	B	10	Unknown	41	V. Positive		
281	B	10	Iron	6	Negative		
282	B	10	Unknown	47	V. Positive		
283	B	10	Faint Signal				
284	B	10	Faint Signal				
285	B	10	Unknown	36	Positive		
286	B	10	Faint Signal				
287	B	10	Unknown	62	Positive		
288	B	10	Unknown	72	Positive		
289	B	10	Faint Signal				
290	B	10	Faint Signal				
291	C	1	Faint Signal				
292	C	1	Faint Signal				
293	C	1	Faint Signal				
294	C	1	Iron	2	Negative		
295	C	1	Unknown	49	V. Positive		
296	C	1	Iron	3	Negative		
297	C	1	Unknown	46	V. Positive		
298	C	1	Copper	99	H. Positive		
299	C	1	Unknown	70	Positive		

300	C	1	Unknown	31	V. Positive		
301	C	1	Iron	8	Negative		
302	C	1	Unknown	70	Positive		
303	C	1	Unknown	41	V. Positive		
304	C	1	Unknown	80	Positive		
305	C	1	Unknown	40	V. Positive		
306	C	1	Unknown	67	Positive		
307	C	1	Unknown	47	V. Positive		
308	C	1	Unknown	42	V. Positive		
309	C	2	Unknown	34	V. Positive		
310	C	2	Unknown	56	Positive		
311	C	2	Unknown	59	Positive		
312	C	2	Unknown	39	V. Positive		
313	C	2	Unknown	33	Positive		
314	C	2	Faint Signal				
315	C	2	Unknown	41	V. Positive		
316	C	2	Unknown	46	V. Positive		
317	C	2	Unknown	48	V. Positive		
318	C	2	Unknown	37	V. Positive		
319	C	2	Iron	2	Negative		
320	C	2	Unknown	32	V. Positive		
321	C	2	Faint Signal				
322	C	3	Faint Signal				
323	C	3	Faint Signal				
324	C	3	Unknown	86	Positive		
325	C	3	Faint Signal				
326	C	3	Faint Signal				
327	C	3	Unknown	40	V. Positive		
328	C	3	Faint Signal				
329	C	3	Unknown	60	Positive		
330	C	3	Unknown	37	V. Positive		

331	C	3	Unknown	67	V. Positive		
332	C	3	Faint Signal				
333	C	3	Iron	1	Negative		
334	C	3	Iron	6	Negative		
335	C	3	Unknown	37	V. Positive		
336	C	3	Unknown	80	Positive		
337	C	4	Faint Signal				
338	C	4	Iron	6	Negative		
339	C	4	Unknown	36	V. Positive		
340	C	4	Unknown	86	Positive		
341	C	4	Unknown	49	V. Positive		
342	C	4	Iron	No	Negative		
343	C	4	Unknown	57	Positive		
344	C	4	Faint Signal				
345	C	4	Faint Signal				
346	C	4	Faint Signal				
347	C	4	Iron	9	Negative		
348	C	4	Unknown	41	V. Positive		
349	C	4	Unknown	84	Positive		
350	C	4	Unknown	37	V. Positive		
351	C	4	Unknown	47	V. Positive		
352	C	4	Iron	9	Negative		
353	C	4	Unknown	40	V. Positive		
354	C	4	Unknown	42	V. Positive		
355	C	4	Unknown	41	V. Positive		
356	C	4	Iron	6	Negative		
357	C	5	Iron	6	Negative		
358	C	5	Unknown	88	Positive		
359	C	5	Unknown	67	Positive		
360	C	5	Unknown	37	V. Positive		
361	C	5	Iron	0	Negative		
362	C	5	Unknown	37	V. Positive		

363	C	5	Unknown	38	V. Positive		
364	C	5	Unknown	39	V. Positive		
365	C	5	Unknown	34	V. Positive		
366	C	5	Iron	3	Negative		
367	C	5	Unknown	59	Positive		
368	C	5	Faint Signal				
369	C	5	Copper	91	H. Positive	Hard to pick up signal	
370	C	5	Faint Signal				
371	C	5	Iron	0	Negative		
372	C	5	Unknown	34	V. Positive		
373	C	6	Unknown	49	V. Positive		
374	C	6	Faint Signal			Confusing Signal - Curve on XY	
375	C	6	Faint Signal				
376	C	6	Copper	92	H. Positive		
377	C	6	Unknown	36	V. Positive		
378	C	6	Iron	6	Negative		
379	C	6	Unknown	35	V. Positive		
380	C	6	Unknown	45	V. Positive		
381	C	6	Unknown	49	V. Positive		
382	C	6	Faint Signal				
383	C	6	Faint Signal				
384	C	6	Faint Signal				
385	C	6	Faint Signal				
386	C	7	Faint Signal				
387	C	7	Faint Signal				
388	C	7	Faint Signal				
389	C	7	Copper	96	H. Positive		
390	C	7	Iron	1	Negative		
391	C	7	Iron	6	Negative		
392	C	7	Unknown	31	V. Positive		
393	C	7	Iron	10	Negative		

394	C	7	Unknown	51	V. Positive		
395	C	7	Unknown	69	Positive		
396	C	7	Iron	6	Negative		
397	C	7	Iron	7	Negative		
398	C	7	Unknown	41	V. Positive		
399	C	7	Unknown	63	Positive		
400	C	7	Unknown	49	V. Positive		
401	C	7	Unknown	63	V. Positive		
402	C	7	Iron	0	Negative		
403	C	7	Iron	6	Negative		
404	C	7	Unknown	42	V. Positive		
405	C	7	Unknown	40	V. Positive		
406	C	8	Faint Signal				
407	C	8	Unknown	69	Positive		
408	C	8	Unknown	47	V. Positive		
409	C	8	Copper	96	H. Positive		
410	C	8	Iron	6	Negative		
411	C	8	Unknown	67	Positive		
412	C	8	Faint Signal				
413	C	8	Unknown	41	V. Positive		
414	C	8	Unknown	85	Positive		
415	C	8	Unknown	47	V. Positive		
416	C	8	Faint Signal				
417	C	8	Faint Signal				
418	C	9/10	Iron	4	Negative		
419	C	9/10	Faint Signal				
420	C	9/10	Faint Signal				
421	C	9/10	Unknown	37	V. Positive		
422	C	9/10	Unknown	83	Positive		
423	C	9/10	Iron	2	Negative		
424	C	9/10	Unknown	39	V. Positive		
425	C	9/10	Iron	1	Negative		

426	C	9/10	Faint Signal				
427	C	9/10	Unknown	63	Positive		
428	C	9/10	Iron	6	Negative		
429	C	9/10	Unknown	52	V. Positive		
430	C	9/10	Unknown	80	Positive		
431	C	9/10	Unknown	45	V. Positive		
432	C	9/10	Faint Signal				
433	C	9/10	Faint Signal				
434	C	9/10	Faint Signal				
435	C	9/10	Faint Signal				
436	C	9/10	Faint Signal				
437	C	9/10	Unknown	80	Positive		
438	C	9/10	Unknown	45	V. Positive		
439	C	9/10	Faint Signal				
440	C	9/10	Iron	6	Negative		
441	C	9/10	Faint Signal				
442	C	9/10	Copper	89	Positive		
443	C	9/10	Unknown	40	V. Positive		
444	C	9/10	Faint Signal				
445	C	9/10	Unknown	62	Positive		
446	C	9/10	Iron	6	Positive		
447	C	9/10	Unknown	44	V. Positive		

Appendix E
Artifact Catalogue

See Volume II