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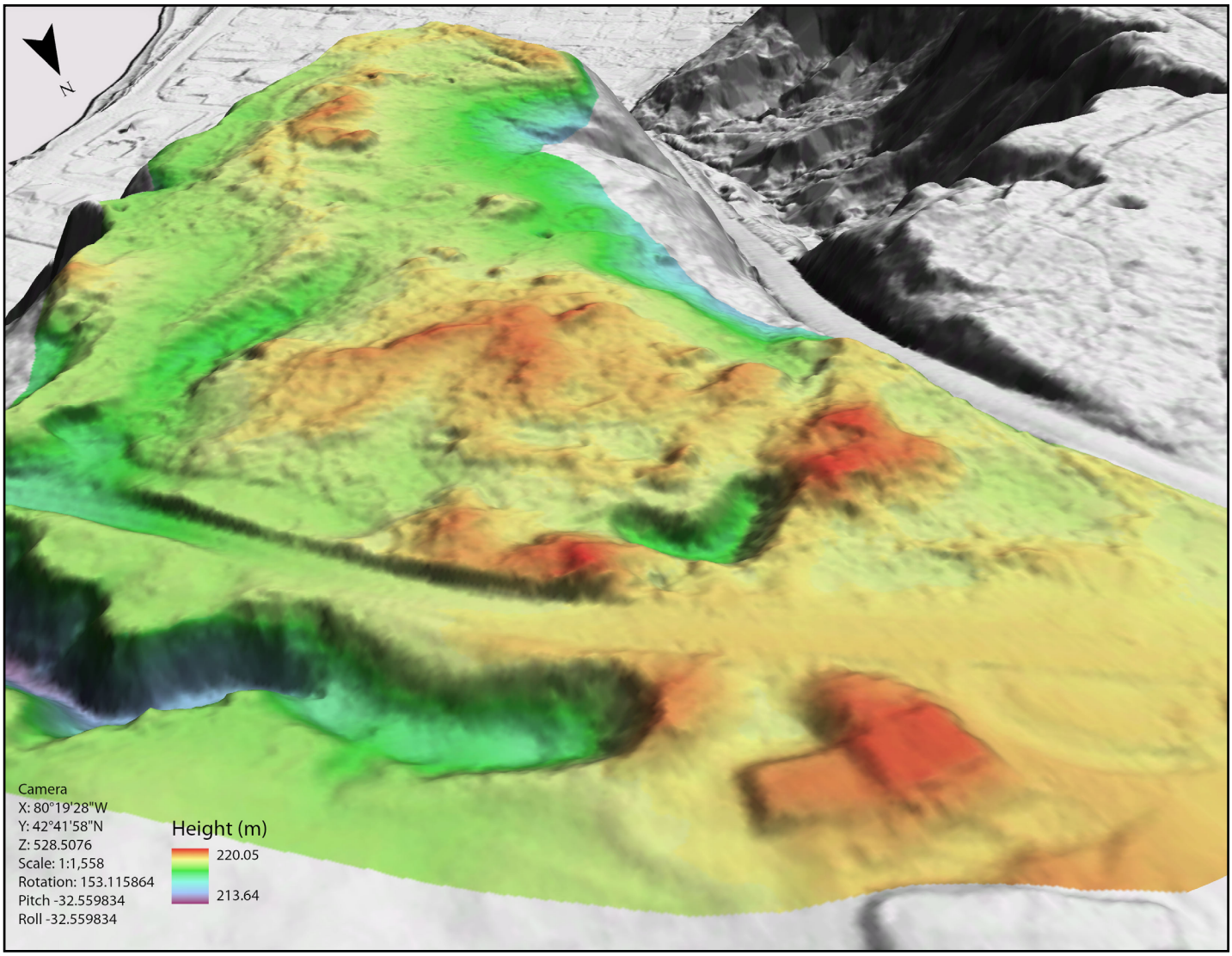
Arch Notes

The Newsletter of the Ontario Archaeological Society



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President's Message

Boozhou! Tansi! Waachi'ye! Ndio! Se:ko! Bonjour! Hello!

I hope that you are staying well, despite the challenges all of us have been facing both professionally and personally in the last few years. With the promise of summer and places opening up again we (cautiously) look forward to things returning to 'normal' for everyone.

Continuing on the OAS board of directors in their same roles as last year are Abbey Flower as Vice-President, Craig Ramsoomair as our Director of Outreach, and Jeff Siebert as Director of Heritage Outreach. However, there were several changes this year. Thanks to departed board members Kate Dougherty (Director of Publications) and Kaitlyn Malleau (Director of Education), who have served the society so well for several years. We wish them all the best in their endeavours. After not having a Treasurer for many months, we welcomed financial whiz Nancy Kallina (MBA, CPA, CA, CBV) on board late in 2021. Also, Jake Cousineau signed on as the new Director of Education and Susan Dermarkar joined as Director of Chapter Services. Jake was the recipient of the 2020 Valerie Sonstenes Student Fund award, so it is great to have him now volunteering with the OAS. Greg Braun has changed over to the Director of Publications portfolio (from Chapter Services last year). Also, Jim Sherratt has moved from the President to the guiding Past-President role (and he has been providing much needed guidance!).

Our Executive Director, Chiara Williamson, accepted a full-time position with a consulting company at the end of last year. She requested that her OAS working hours change from 20 to 10 per week to accommodate that change. That provided the board of directors with an opportunity to evaluate our present needs as an organization. After several discussions, the decision was made that we required at least the previous 20 hours a week assistance from the Executive Director. It was decided to change that position to full-time for a one-year contract. In addition to the previous administrative tasks, we would like the new OAS Executive Director to help us develop the "Best Practices" guides that board members and members have been working on in various subcommittees over the last few years. As with most things, COVID-19 has slowed this down, so having the Executive Director dedicate time to that project will certainly move things along. The finished guides about different areas in archaeology (e.g., zooarchaeology, pottery, lithics, Northern Ontario) will be uploaded to the OAS website for educational purposes for use by the general public, proponents, students, etc. They will also help to inform the impending restructuring of the 2011 Standards and Guidelines for consulting archaeologists (https://www.ontario.ca/page/standards-and-guidelines-consultant-archaeologists). The Ministry of Heritage, Sport, Tourism and Culture Industries has started that process with the release for comments of the draft bulletin 19th Century Rural Historical Farmsteads for Consulting Archaeologists (https://www.ontario.ca/page/archaeology-rural-historical-farmsteads-draft-technical-bulletin-consultant-archaeologists).

The other change on the board is the new OAS President – the first one in Northwestern Ontario! My journey with the OAS executive began with various roles in the Thunder Bay chapter since 2007. Then, William Ross asked me to fill in for him as a Northern representative for one OAS board meeting and that led

to me being elected as the Director of Member Services after he left in 2020. I bring to the society over 30 years of varied archaeological experience having lived and worked in Manitoba (BA Hons. at Brandon U.), Saskatchewan (Master's), Alberta (PhD), and Tasmania for two years. My experience includes working for a museum, CRM firms, and on many public archaeology or educational projects. Since 2001, I have lived in Thunder Bay working as a lecturer and researcher at Lakehead University, including many projects with and for Indigenous communities.

Following in the footsteps of Jim Sherratt, and Alicia Hawkins before him, I have some very big shoes to fill. Both former presidents have provided unwavering support of Indigenous peoples, communities and issues related to archaeology. Given that I have a personal connection with those issues, it is important to me that the OAS continue to work on those steps towards reconciliation.

In terms of other updates, we are hoping that you have visited the fabulous new OAS website. Josh Dent, who is our long serving Webmaster (and Director of Member Services), along with Arek Skibicki and others, have gone to great lengths to energize, update, and make it function better. Check it out at https://ontarioarchaeology.org/!

The board is excited to be working with the Hamilton chapter on planning the 49th annual OAS Symposium, which this year will be held in late October using a hybrid, in-person/online delivery (please refer to the website for updates). We also encourage your participation and assistance with that endeavour! Over the coming months, I am hoping to meet more of you and hear your thoughts about the OAS. I look forward to working together, in a good way, to improve Ontario archaeology.

Jill Taylor-Hollings

The Use of Lidar in Identifying Fort Norfolk (1814-1815)

By Chris Menary

In 2020 I began work on an unrelated remote sensing project on the north shore of Lake Erie, and while assembling the data for that project I decided to investigate if traces of Fort Norfolk could be identified with Lidar in Turkey Point Provincial Park (Figure 1). The results indicated the presence of earthworks and depressions in the area south of the Historic Sites and Monuments Board of Canada cairn. Subsequent research revealed the fort's history, the events surrounding its construction, typical 19th century fortification techniques, and previous attempts to locate the fort in the 1960s and 1970s. This article will outline the history of the fort, how Lidar was utilized to identify the earthworks, and an analysis of the features identified and how they point to an early 19th century military origin.

The fortification of Turkey Point was initially conceived as one of a string of naval depots along the north shore of Lake Erie by Lt Governor Simcoe in the 1790s. Each depot would include a shipyard, fortifications, and a civilian centre that would attract new settlement to remote areas of Upper Canada. While a military reserve was established at Turkey Point with the survey of the village of Charlottesville in 1795, the construction of the fort and naval depot were delayed until 1813 and never completed (Stopp 2009:2).

During the War of 1812 the main naval depot on Lake Erie was at Amherstburg on the Detroit River. With the loss of the British fleet at the Battle of Lake Erie and the defeat on land at the Battle of the Thames in late 1813, the British were without shipbuilding capability and control of the western part of the province. The Americans occupied Fort Malden and the village of Sandwich (now Windsor) in Essex County and began raiding further east along the Thames Valley and Lake Erie shore to destroy cattle, crops, and mills that were vital to the war effort (Stanley 1983:279).

Fort Norfolk was built to house a permanent garrison as a response to the American raids and was also a component of the proposed British 1815 campaign. The retaking of the western part of the province and the Michigan territory would require a new fleet to challenge American naval supremacy on Lake Erie.

A shipyard was planned at Turkey Point, with permanent fortifications for its protection (Feltoe 2014:182).

Construction of the fort began in late 1813 but was delayed by the American invasion in Niagara in the summer of 1814 as troops working on its construction were redeployed. Work resumed in late 1814 through the Spring of 1815, with the end of the war halting progress before the fort was completed. A report from 1825 describes the fort as: "A blockhouse and some wooden buildings were constructed here many years ago, now perfectly in ruins" (Young 1980:99).

No engineering plans or small-scale maps survive that show the fort's appearance. Contemporary large-scale maps (Figure 2) depict the fort using stylized icons of a four-bastioned square construction. Reports and dispatches during the War of 1812 provide some insight into the layout of the fort. It was originally designed as a square redoubt, with two or four blockhouses connected by picketing which served in place of bastions. Several records mention it could house 300 to 500 men, though it is unclear if this was in one building or the total for the fort. There was a ditch, a covered way, and plans for a glacis (Stopp 2009).

E.A. Owen, in his 1898 *Pioneer Sketches of Long Point Settlement,* wrote "Fort Norfolk was substantially constructed. It was enclosed with a double wall built of hewed oak timbers a foot square, with a six feet space between solidly packed with earth." He also records that after the fort's abandonment, a 'few' twelve-pounder cannons were accidentally left behind. (Owen 1898: 55)

Figure 1: Location Map

A watercolour from 1900 by W. Edgar Cantelon entitled *Remains of Earthworks at Turkey Point* from 1900 (Figure 3) depicts a triangular-shaped earthwork, with another linear earthwork in the distance behind two trees. Two roads are visible and in the distance Lake Erie can be seen.

The military reserve at Charlotteville was considered surplus by the Militia Department in 1920 and was not deemed to be of national importance. A year later the site was visited by Dr. Coyne and General Cruickshank on a tour of War of 1812 sites which created a renewed interest in the fort. Dr. Coyne returned in 1922 with Senator Alexander McCall and reported the "remains of Old Fort Norfolk are in fairly good condition, and from a slight eminence to the north the outlines stand out quite clearly. It was square with bastions, and there is an outer earthwork, with a well-preserved ditch around the northeast corner" (Stopp 2009:3). He suggested the location for the current memorial cairn and produced a sketch map of the site (Figure 2). Fort Norfolk was declared a site of national importance in 1925 and the cairn and surrounding areas incorporated as part of Turkey Point Provincial Park (Figure 1).

The site was visited by the curator of the Eva Brook Donly Museum in Simcoe in 2009. It was recorded as densely forested, but a series of ditches were observed in the undergrow-

Figure 2: Historic Maps and Images

Figure 3: Remains of Earthworks at Turkey Point by Cantelon

th 30-40 yards south of the memorial cairn, the same distance reported by Dr. Coyne in 1922. The report also mentioned that the area was reforested by the Government of Ontario prior to this date, so those ditches may relate to that event (Stopp 2009:4)

Previous Work

Turkey Point Provincial Park has been subject to three archaeological surveys. In 1968 Sutermeister of the Royal Ontario Museum conducted a survey of the park in search of the Van Norman Iron Foundry and dug two trenches in vicinity of the memorial cairn in search of the fort. Following this, Stothers of the University of Toledo conducted a large-scale survey of the park in 1972, then by Wright in 1975 under the Ontario Ministry of Culture and Recreation in advance of new road construction. In total fourteen sites were discovered, four of which are Euro-Canadian and all post-date the War of 1812 period (Wright 1976:6). There is no current archaeological evidence of the fort's location. The Directory of Federal Heritage Designations for Fork Norfolk NHS reads "There are no known extant remains of Fort Norfolk."

Lidar and Remote Sensing

The study area is located within Turkey Point Provincial Park (Figure 1), on a promontory above the village of Turkey Point on Lake Erie south of the HSMBC memorial cairn. Two ravines flank the site to the east and west, the western containing Old Hill Rd. The Turkey Point Golf club, now closed, is to the east.

As the area south of the memorial cairn where the fort most likely lies is forested, a remote sensing analysis was conducted using airborne Light Detecting and Ranging (Lidar). This technology penetrates forest canopy and allows for a detailed model of the bare ground below to be constructed. All processing was done with ArcGIS Pro 2.8.2 with 3D and Spatial Analyst extensions on an HP Z2 Mini workstation.

Data for this investigation was obtained from the Ontario GeoHub, which is part of Land Information Ontario. Lidar data is freely available to download as a raster Digital Terrain Model (DTM) and Digital Surface Model (DSM). A DSM includes all features on and above the ground, including trees, buildings, and powerlines. A DTM, also known as a Digital Elevation Model (DEM), is the ground surface only. Both the elevation of the DSM and DTM are in meters above sea level; by subtracting the DTM from the DSM an Absolute Height Model can be created. This gives the height of features and can be useful in determining how tall individual trees and buildings are.

The raster resolution for the study area is 50 cm, which is adequate for topography and general use but insufficient for detailed examination of the terrain. To create higher-resolution products the raw Lidar data (called LAS points) was acquired through a special order to the Ministry of Natural Resources and Forestry. The point density of the Lidar data for the study area is 26 points per square meter, allowing for a 25 cm resolution DTM and contours to be generated. The data used in this study was flown in 2019 by Airborne Imaging.

Raster data from the GeoHub can be viewed with any GIS software, such as ArcMap or QGIS. ArcMap requires a license to use and additional extensions to manipulate Lidar, so QGIS is preferable for those who want free, open-source software. ArcGIS offers more functionality however, especially with ArcGIS Pro and its 3D capabilities. Raster data can also be converted to .kml format for use in Google Earth.

Earthworks such as banks and ditches can be detected with a DTM, but

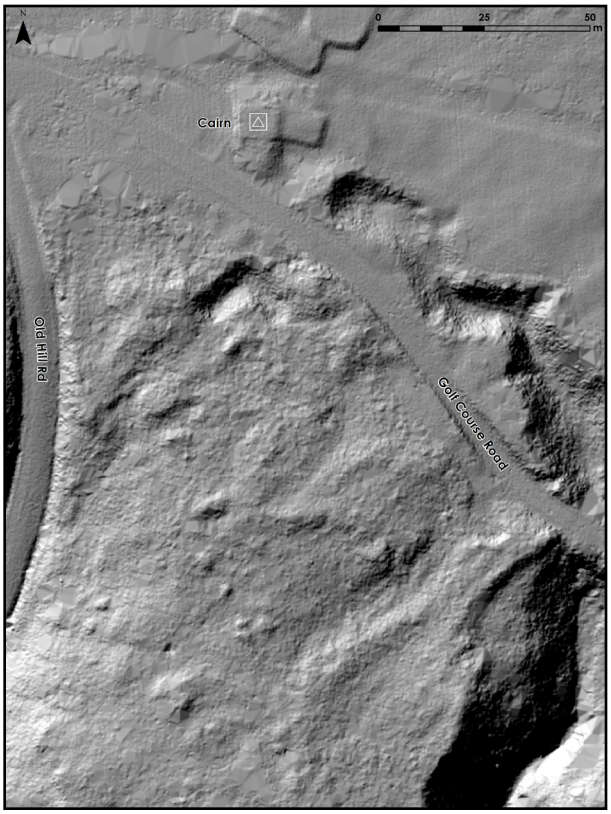

Figure 4: Hillshade

Figure 5: Slope

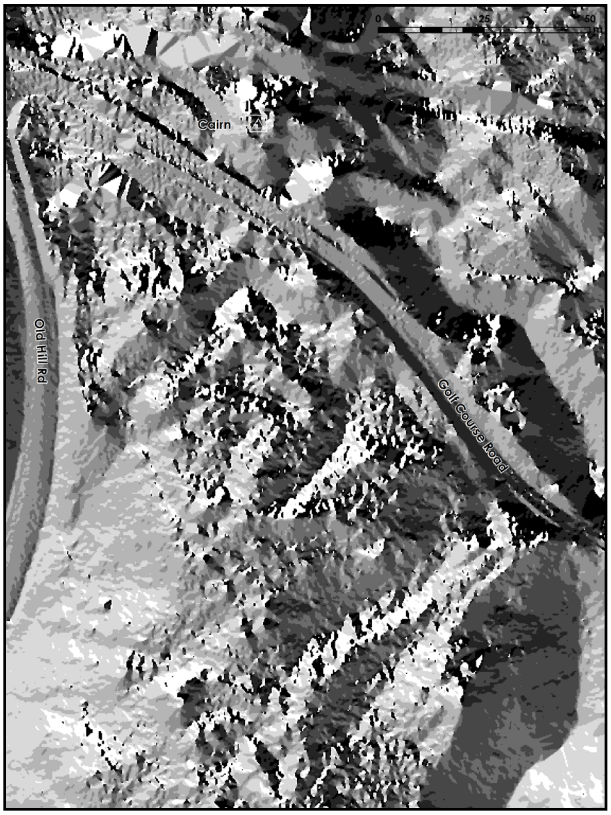

Figure 6: Aspect

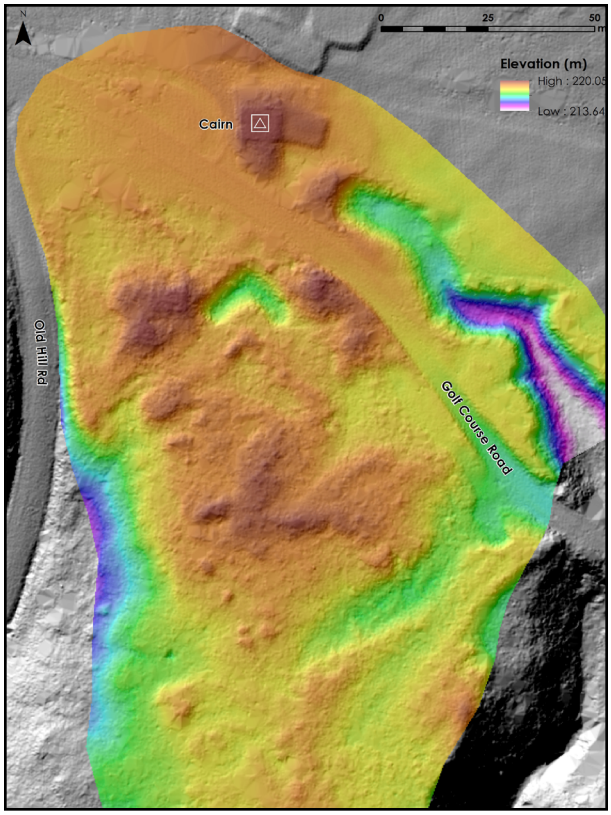

Figure 7: Shaded Relief

products created and derived from the elevation data in the DTM were most useful in this study. These include a hillshade, slope model, aspect model, contours, and curvature models. Some products were combined, blended, and stacked with others to bring out minute changes in topography that indicated the presence of an earthwork.

The first product created was a hillshade (Figure 4), a grey-scale shading of the ground surface using the sun's position at 315 degrees azimuth to darken and lighten changes in elevation and aspect. A newer function is the multidirectional hillshade, which combines light from six sources and provides more detail. Most banks and ditches are easily seen in a hillshade and this one product is all that is required for their detection. Yet in the study area nothing conclusive was observed. There was a possible linear feature running SW-NE, and several other small anomalies. To investigate further additional products were created from the DTM.

A slope model uses the changes in elevation of the DTM and displays this in either degrees or percent rise. Banks and ditches appear as areas of steep slope, flat areas, and then steep slope. This model is also useful in the planning of fieldwork to determine which areas are too steep to survey. As with the hillshade, nothing definitive was initially seen. To detect subtle changes in slope, the display was changed from 'stretched', which displays the complete spectrum of the raster from lowest value to highest, to 'classified' with two distinct classes (Figure 5). The first class was generally flat areas (0 to 10 degrees), the second sloped areas (over 10 degrees). By only displaying the second class, sloped areas became clearly visible, as did a chevron-shaped ditch pointing due north. The end of the eastern ravine, which was presumed to be natural, now appeared as two parallel lines with a rounded terminus.

Another product used was an aspect model, which characterizes the DTM by the direction the ground is facing from 0 to 360 degrees (Figure 6). What became apparent using this model was that the chevron-shaped ditch was the northern corner of a three-sided square enclosure with an outer ditch and inner bank.

A simple and effective method to identify earthworks was then used called a shaded relief (Figure 7). This involved overlaying a coloured DTM with 50% transparency on the hillshade,

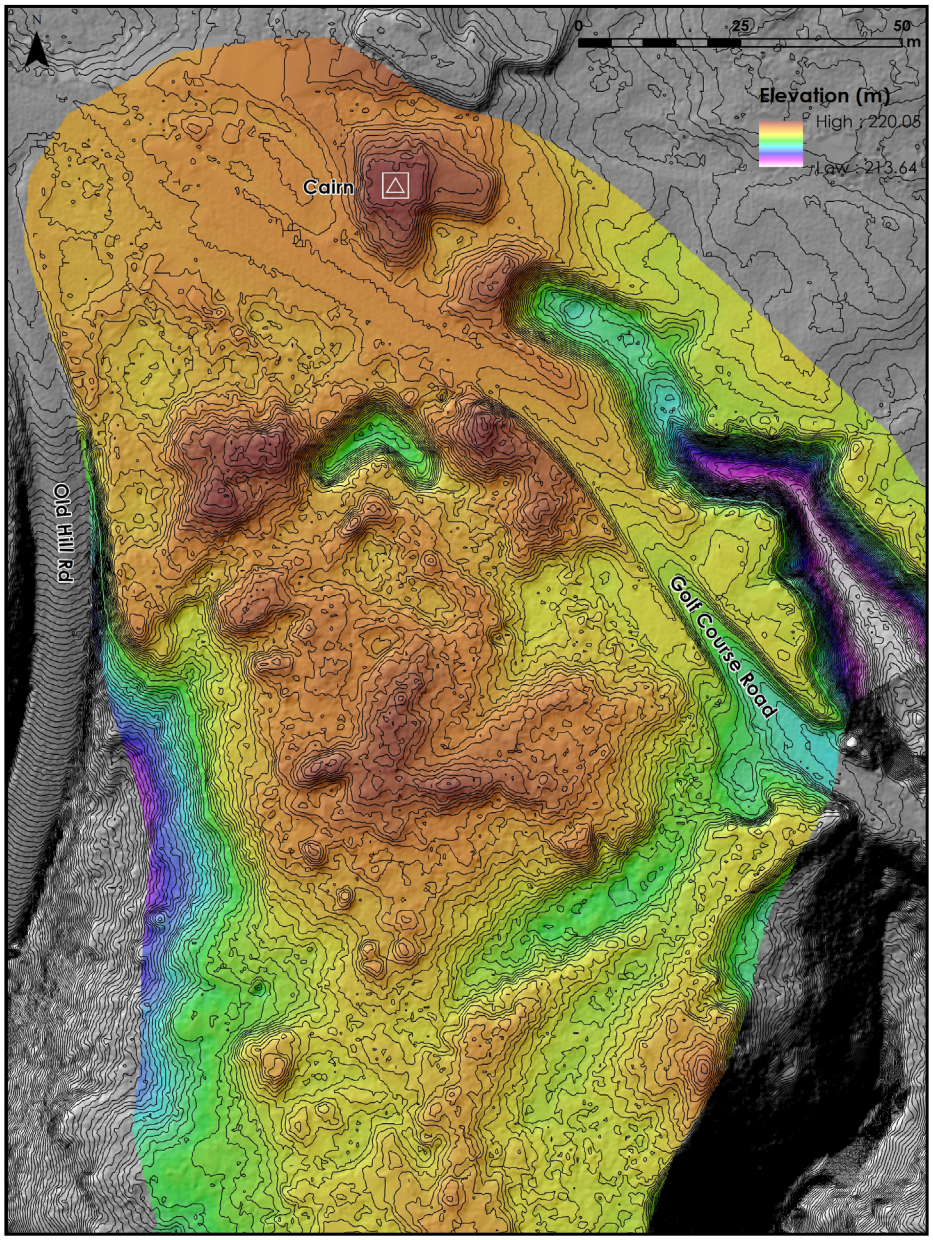

Figure 8: Shaded Relief with Contours

which highlighted areas of change in elevation. ArcGIS Pro has a feature called Layer Blend, which allows for two rasters to be combined and then adjusted by saturation, luminosity, lightening, and darkening. This is a superior method to overlaying, but any GIS software will allow stacking layers with transparency. This technique can also be done with other layers, such as slope and hillside or even aerial imagery and hillshade. The shaded relief clearly showed a series of banks and ditches, arrayed in a three-sided square with corners at the cardinal compass directions as seen in the aspect model. A triangular projection was on the NW side of the enclosure, with the possibility of two other projections on the NE and SE sides. The memorial cairn mound, which includes a tee-off box, is also a triangular earthwork on the same alignment as the NW projection.

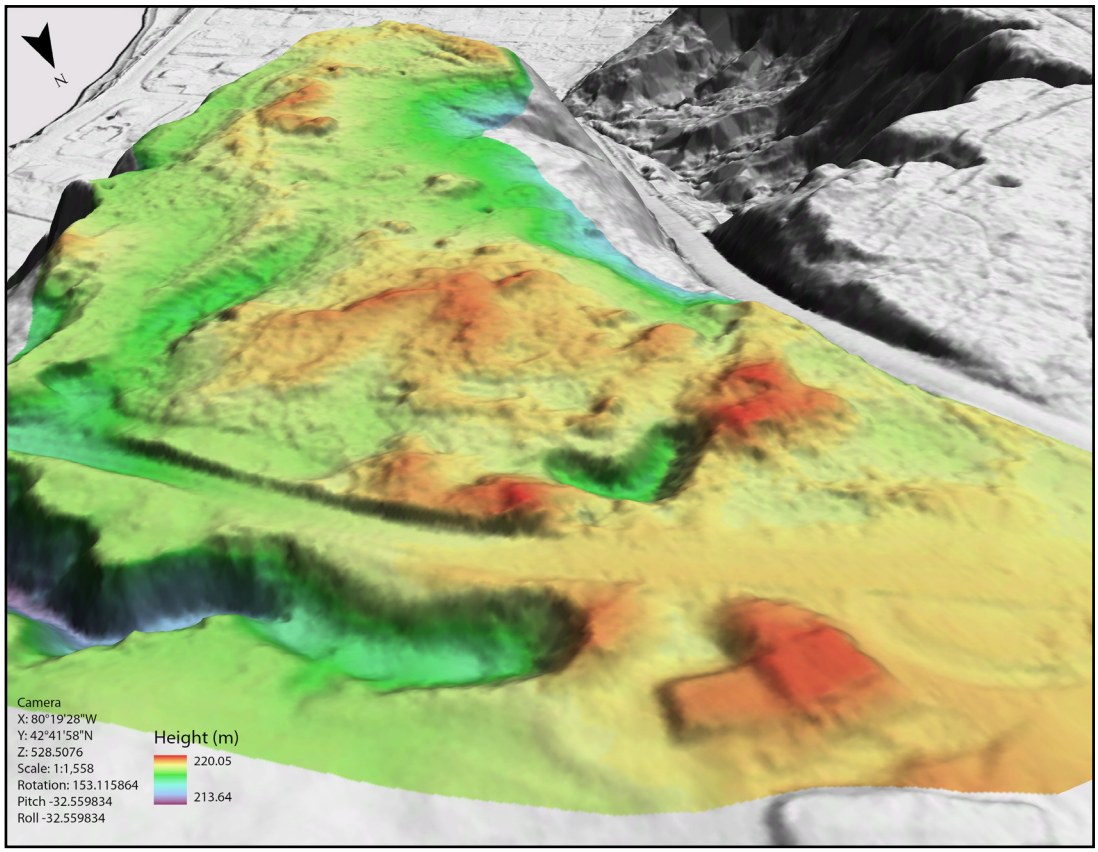

Figure 9: Isometric Shaded Elevation

The final stacking process involved adding contours to the shaded relief. Contours are best created directly from the LAS points, instead of an already derived product such as the DTM. With the contours added, the features became even more apparent (Figure 8).

A benefit of using ArcGIS Pro is the ability to convert 2D maps into 3D scenes. ArcGIS Pro has a built-in elevation model, but it is best to use the Lidar DTM as the elevation source. All other features, both raster and vector, 'float' on top of this layer. The vertical axis can be exaggerated, allowing for small changes in elevation to be more visible. Cross section profiles can also be created, allowing for the depth and height of features to be quantitatively determined.

With the 3D scene constructed, all Lidar products were added and the study area examined from multiple angles (Figure 9). The earthworks were immediately apparent, and additional features were noticed with the exaggerated vertical axis and blending the slope and shaded elevation. All earthwork features were then digitized and categorized as either positive (bank) or negative (ditch) (Figure 10). Each feature was given an identifier and quantified by length, width, and depth (Figure 11).

Analysis

Feature A is a U-shaped bank terminating in two flat rectilinear areas. It comprises three sides of a square with each corner or terminus at a cardinal compass point. Beginning with the rectangular terminus in the west, each side is 31 m, 28 m, and 32 m long. Both termini are approximately 8 x 11 m and between 0.5 – 0.8 m high. The width of the bank varies between 2.5-3.5 m and is between 0.2– 0.6 m high.

Feature B is the chevron shaped ditch pointing due north, with a total length of 28 m, a width of 5 – 6 m, and a maximum depth of 1.3 m. There are two similar albeit degraded ditches (B1 & B2) at the east and west points of Bank A that mirror Ditch B. Both are not as clearly defined and have edges that appear to

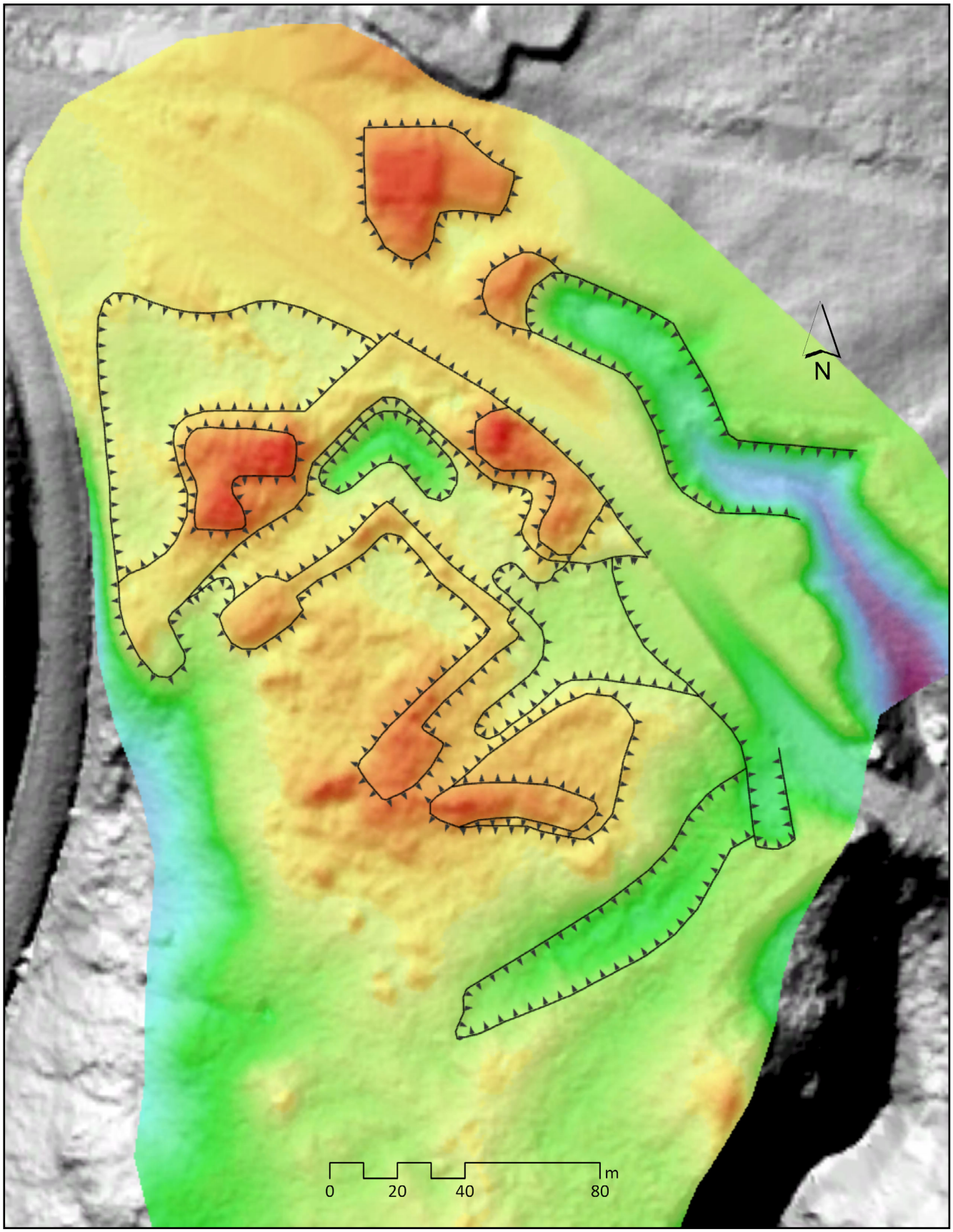

Figure 10: Shaded Relief with Features

Figure 11: Promontory Earthworks Line Drawing

have been eroded away or removed.

Feature C follows the same alignment as Bank A but is partially removed by the cut for the road to the golf course. It does appear to have two returns, though the NW-SE aligned segment has been affected by slope erosion and is only 7 m long. Only the NW side is undisturbed, and it contains a triangular-shaped projection to the north-west. The width of this section outside of this projection is roughly 6 m, the length 58 m, and a height of 0.4– 0.5 m. The projection is roughly an equilateral triangle, with sides 17 m long that deflect 60° from the bank. The distance between A & C, which contains the ditches, is between 9-12 m.

Feature D is a triangular mound with one side in alignment to A. The NW side measures 30 m, the other two roughly 25 m. It is only 0.2 m high but with clearly defined edges.

Features E1/2/3 are all raised areas on top of the bank. E1 is chevron shaped feature oriented at a 45° deflection from Bank C and is aligned with the triangular projection. It is 28 m long, 6 – 7 m wide and is 0.8 - 1.0 m above the surface of Bank B. Feature E2 has been truncated by the road cut, but appears to mirror E1, with a similar width, and height. E3 is a linear feature in an east-west alignment, 5 m wide and 0.6 - 0.7 m above Bank D.

Feature F is a triangular depression to the NW of Bank B. It runs 52 m along Bank B, with the remaining two sides roughly 42 m long. The western edge is very clearly defined, and the maximum depth is 0.3 m.

Feature G is a linear depression, with an ill-defined western end and the eastern end truncated by a cut. The extant length is 60 m, the width 7 – 8 m, and a maximum depth of 1.2 m.

Feature H is a lengthening and widening of the ravine on the eastern side of the promontory. Its total length is 56 m, contains two 60° deflections, and is 10.5 m wide. The northern end has a depth of 1.0 m deepening to 2.0 m at the southern end.

Feature J is a mound at the northern end of Feature H. It is the same width as H at 10.5 m, 7 m long, and 0.75 m high.

Feature K is a triangular/chevron-shaped mound on which the Turkey Point NHS memorial cairn sits. It is a rough equilateral triangle with an indent on the south-east with sides of 22 m and a height of 0.8 m. The eastern arm contains a tee-off box for the golf course.

Modern road construction has removed sections of the earthworks, most noticeable Features C and E2. A large depression next to Feature B2 may also be a modern disturbance.

Discussion and Conclusion

While these results require ground truthing for absolute confirmation, the earthworks do align with documentary evidence and their pattern is indicative of early 19th century military works. The palisade of Fort Norfolk was described as "double wall built of hewed oak timbers a foot square, with a six feet space between solidly packed with earth" and would have connected blockhouses most likely at the corners. The width of this double wall and interior packing would have been 2.4 m, very close to the width of Feature A at 2.5-3.5 m. The packing would have spread with the removal/rotting of the oak timbers, so the increased width can be attributed to this.

The termini at both ends of A are the likely locations for the blockhouse. Blockhouses were built of varying sizes, from the largest at Fort George at 100 feet x 30 feet to the smallest at 18-25 foot square (Young 1980). The blockhouse at Fort Norfolk would have been on the smaller end, as the size of each terminus is roughly 25 feet x 35 feet. It is conceivable that erosion of the sandy soil has removed some of this area and the blockhouse was larger, especially if it was built to house 300 men. The blockhouse could also have been built in the centre of A, surrounded by the palisade.

Outside the palisade are the ditches B/B1/B2 and bank C which was common in blockhouse construction of the era. "Ditches were dug outside the palisade to present an even more imposing obstacle to those attackers who might have succeeded in reaching them" (Young 1980:12). There is a difference, however, in that these ditches are segmented, and the bank contains triangular projections. These projections may be "flèches," small projections with two faces and an open rear (Chartrand 2016:62). They are also higher than bank B. Outside the bank are three additional ditches, F/H/G. The possible profile then of the fort was the double palisade, segmented ditches, bank, and outer ditch.

The covered way mentioned as being constructed in 1813 is likely the area between B and C, and the glacis the outer face of C when compared with other palisaded forts with outer earthworks (Chartrand 2012:34).

Feature K is likely the earthwork

seen in the foreground of Cantelon's painting (Figure 3) and on Coyne's 1922 sketch map (Figure 2). Coyne noted the presence of an outer earthwork the same year. The landscape is now heavily altered by the memorial cairn and golf course, but the depiction in the painting of a v-shaped earthwork points to it being a ravelin or redan. A ravelin is described as "an outwork consisting of two faces forming a salient angle at the front and a flank angle at the rear" (Chartrand 2012:61) and a redan "a fieldwork with two faces forming a salient angle. A redan was usually a *field fortification* rather a permanent part of a fort, as was a ravelin (Bradford 1988:167). Ravelins were positioned to protect weak sections of a fort, such as gates. Fort George has two ravelins, one protecting the entrance with no rear and the second containing the octagonal blockhouse which is closed. Both features are earthworks topped with a palisade, suggesting Feature K may have had a timber palisade like the main walls of the fort and may indicate the location of the fort's entrance.

The function of feature J is unclear, and it may be nothing more than spoil from the digging of ditch H.

Coyne's 1922 sketch map (Figure 2) of a square bastioned fort is not accurate. He seems to have taken the ditch and bank at the northern corner as the edge of a bastion, and then extrapolated the rest of the fort on that basis. He may have taken the image in the 1815 map at face value and assumed the fort was bastioned as none of the archival records indicate the presence of these features.

Fort Norfolk was described as a "log redoubt." A redoubt was a "detached or independent outwork without flanking defenses such as bastions" (Bradford 1988:167). The common redoubt of the time was a square roughly 50 x 50 m, with a blockhouse at the centre surrounded by an earthen bank and ditch. It was a simple, expedient construction during war. Two of these were built in the Niagara region, at Queenston Heights (Fort Drummond), and at the junction of the Welland River and Lyons Creek (Welshuns Point Blockhouse). Both could house 100 men (Young 1980:99). Fort Wellington at Prescott follows this pattern but on a much larger scale.

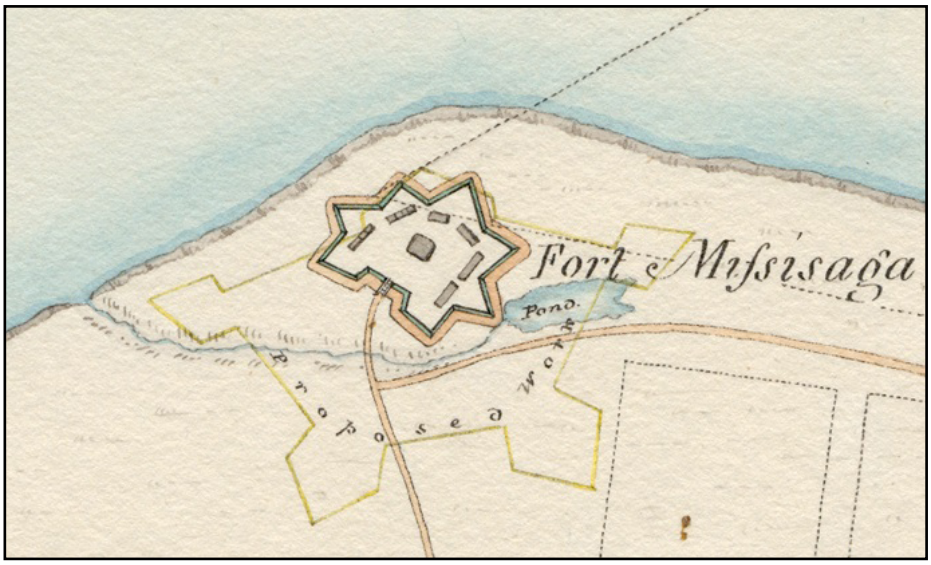

Figure 12: Fort Mississauga 1819

The earthworks at Turkey Point resemble Fort Mississauga (Figure 12), which was a field fortification built to augment Fort George at the mouth of the Niagara River. Both have a square, central area with triangular projections in the middle of the curtain wall, as opposed to the corner bastions found on Forts Malden, Erie, and St. Joseph. Fort Mississauga is classified as a star fort, a "succession of seven inverted "V's" joined together in a roughly circular fashion, the points all sticking outward like a hedgehog" (Bradford 1988:153). Inside the walls are a blockhouse-like stone tower and ancillary buildings. Like Fort Norfolk, Fort Mississauga was constructed as a temporary measure with plans for a permanent work to be completed later (see Figure 12 for the planned fort). It is conceivable the earthworks surrounding the inner square at Turkey Point are the beginnings of this larger, permanent fort. The outer ditches and possible ravelin indicate this was more than a temporary work. The three triangular projections may represent artillery positions for the 12-pounder cannon, similar to the artillery positions at Fort Mississauga. Why did the previous archaeological surveys miss these earthworks and any related artifacts? The area is heavily forested, and test pitting in such conditions may have resulted in an altered grid. The fort was never inhabited, so the artifacts present may only consist of nails and other architectural items in small

areas. The footprint of the blockhouse could be less than 10 m^2 and may have been passed over in the survey. Finally, the wood and nails of the blockhouse might have been recovered and reused after the fort's abandonment. There are no mentions of earthworks in the 1975 report, so they were somehow missed as they were observed and recorded in 1920, 1922 and 2009.

The ditch excavated by the ROM in 1968 may be visible in the Lidar data. A depression 5 x 15 m cuts through Feature G (Figure 11) in the general area of Turkey Point Historic #1. The centre of that site is in the large depression east of B2.

Part of the earthworks do seem to have been affected by bluff erosion. The south-western bank and ditch are adjacent to visible signs of erosion and are very truncated compared to the other sections. This area may have been lost or conversely not completed.

While the earthworks at Turkey Point cannot be conclusively attributed to Fort Norfolk by remote sensing alone, it is hoped this analysis will lead to further investigations, including ground truthing the possible blockhouse locations and palisade, as well as examining other earthworks in the vicinity which may relate to the lost village of Charlotteville.

Acknowledgements

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OAS AWARDS

A reminder to members that the deadline to nominate individuals for this year's OAS awards is **August 1, 2022**. More information and the awards application can be found on the OAS website:

https://www.ontarioarchaeology.org/awards

THE OAS IS HIRING!

Executive Director for the Ontario Archaeological Society

Are you motivated to make a difference in Ontario archaeology? If so, consider this exciting opportunity with the Ontario Archaeological Society (OAS). We are seeking a dynamic, motivated individual with a passion for Ontario archaeology to fill the position of Executive Director. In this role, you will work with the Board of Directors, regional chapters and members to promote the ethical practice of archaeology in our province.

The OAS invites applications for the position of Executive Director. This is a full-time (37.5 hours a week), one year contract position starting as soon as possible (but start date is negotiable). Most of the work tasks may be completed remotely but there are some required in-person tasks involving office tasks and the OAS annual symposium.

If you are interested in this position, please contact jobs@ontarioarchaeology.org for more information. Applicants should send a package including a cover letter detailing relevant experience and skills, a CV, a writing sample, and a list of two employment references to that address by **July 15, 2022** (or until the position is filled).

Regional Chapters

Grand River

President: Chris Dalton
Vice President: Chris Watts
Treasurer: Bonnie Glencross
Secretary: TBA
Website: https://sites.google.com/site/grandriveroas
Facebook: https://www.facebook.com/OAS-Grand-River-Chapter-1530572620573825
Meetings: 2nd Tuesday of each month, Sept.-April Psychology, Anthropology, Sociology building (PAS) 1241 (First Floor), University of Waterloo (South Campus)
Membership: Individual $20, Student $15

Hamilton

President: Emily Anson
Vice President: Jacqueline Fisher
Treasurer/Membership: Ruth Macdougall
Events Co-ordinator: Martha Tildesley
E-mail: oashamiltonOAS@gmail.com
Website: http://hamilton.ontarioarchaeology.org
Facebook: https://www.facebook.com/groups/1453543678209795
Phone: (647) 449-0668
Meetings: 7:30 pm on the 3rd Thursday of the month, Sept. to May, Fieldcote Museum, 64 Sulphur Springs Road, Ancaster
Membership: Individual $11, Family $18

Huronia

President: Victoria Brooks-Elder
Vice President: Dayle Elder
Treasurer: Jamie Hunter
Past-President: John Raynor
Email: huronia.oas@gmail.com
Website: http://huronia.ontarioarchaeology.on.ca
Facebook: https://www.facebook.com/Huronia-ChapterOfTheOntarioArchaeologySociety
Meetings: 7:00pm on the 2nd Wednesday of the month, Year Round at the Midland North Sports and Recreation Centre
Membership: Individual $15, Family $18 Student $10

London

President: Chris Ellis
Vice President: Lafe Meicenheimer
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Directors: Rebecca Parry, Larry Nielsen
KEWA Editors: Christine Dodd, Chris Ellis & Chris Watts
Website: http://oaslondonchapter.ca/
Facebook: https://www.facebook.com/londonoas
Email: oaslondonchapter@gmail.com
Mail: Museum of Ontario Archaeology, 1600 Attawandaron Rd., London, ON N6G 3M6
Phone: (519) 473-1360
Fax (519) 473-1363
Meetings: 7:30 pm on 2nd Thursday of the month except May–August; at MOA
Membership: Individual/Family $18, Student, $15, Institutional $21

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President: André Miller
Vice President: Stacey Girling-Christie
Secretary: Carol Pritchard
Treasurer: Bill MacLennan
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Facebook: https://www.facebook.com/Ottawa-Chapter-of-the-Ontario-Archaeological-Society-582145708470231
Email: ottawaoas@gmail.com
Mail: PO Box 4939, Station E, Ottawa ON K1S 5J1
Meetings: Every 3rd Thursday of the month from Sept. to May; usually at Routhier Community Centre, 172 Guigues Street, Ottawa (in the Byward Market)
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Website: peterborough.ontarioarchaeology.org
Facebook: https://www.facebook.com/groups/1519076065078299
Meetings: 7:00 pm on the fourth Tuesday of each month,
Membership: Individual $12, Family $15, Student $8

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Web Design/Photography: Chris McEvoy
E-mail: clarence.surette@lakeheadu.ca
Website: https://www.lakeheadu.ca/programs/departments/anthropology/the-ontario-archaeological-society
Meetings: 7 pm on the last Friday of the month except May-August in Room BB0017, Braun Building, Lakehead University
Membership: $10 (as of Jan. 1, 2021)

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Meetings: 7:30 pm on the 3rd Wednesday of the month, except June–August in U of T Anthropology Building, Room 246, 19 Russell St.
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Meetings: 7:00 pm on the second Wednesday of February, April, and October and the first Wednesday of December. at the Duff-Baby Interpretation Centre in Old Sandwich Town
Membership: Individual $15, Family $20, Students $5

MEMBERSHIP

	Without OA	With OA
Individual	45 (65)*	57 (77)*
Family	52 (72)	64 (84)
Student	25 (45)	34 (54)
Institutional	75 (includes OA)	
Life	800 (includes OA)	

*Effective 2017, the print version of Arch Notes will cost $20 per year to mail. Those receiving the email version of Arch Notes pay the lower fee.