The Association of Professional Archaeologists Newsletter

2015-01 SPRING EDITION

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President's Message

A message from the President and Past-President

In exploring professionalism we can probably all come up with some definition and identify terms such as respect, competence, consideration, honesty, communicate effectively and more. As members of the Association of Professional Archaeologists (Ontario) we are part of an organization that has developed over time to encourage and facilitate these characteristics and are guided by the objects of our incorporation of June 1990, which are noted here to illustrate to members why this organization was formed.

> *The Association shall represent the interests of its members as professional archaeologists, encourage high standards of research and management, and promote awareness of heritage resources within and beyond the profession. Specifically, these objects include:*
>
> *1. increasing the awareness of ethical standards and considerations, and encouraging archaeologists to improve and maintain levels of performance in the profession;*
>
> *a. increasing the awareness of ethical standards and considerations, and encouraging archaeologists to improve and maintain levels of performance in the profession*
>
> *b. increasing the awareness within and outside the profession of the need to protect heritage resources and of the means by which the protection of heritage resources can be assured*
>
> *c. encouraging professional archaeologists to fulfill their mandate to maintain high standards in pursuing scientific objectives and public education*
>
> *d. participating in the settlement of questions regarding professional usage and standards.*
>
> *2. acting on behalf of members in areas of concern and mediating solutions to problems involving heritage resources;*

3. *recognizing significant accomplishments in the profession of archaeology; and*

4. *encouraging cooperation in and beyond the profession of archaeology, facilitating positive communication between archaeologists and other professionals who deal directly or indirectly with heritage resources*

Our mission statement, approved by the Board of Directors on September 22nd 2014 and ratified by the membership at the Annual General Meeting of November 29th 2014 states::

"The Association of Professional Archaeologists (APA) is a non-profit organization which serves to advocate on behalf of Ontario's licensed archaeologists, dedicating itself additionally to conserving Ontario's heritage resources, facilitating First Nations consultation, and providing certified training and education in archaeological practice."

For many years members of the APA board have consistently worked hard contributing many volunteer hours on behalf of members to implement the goals and objectives of the organization. In the past 6 years, there have been countless meetings of the board of directors, regular quarterly meetings with Ministry of Tourism, Culture and Sport staff (starting in 2012), annual general meetings to report to the members, professional development workshop opportunities, re-design and upgrade of the website, regular membership info email, bi-annual newsletter, participation in conferences and symposia of other archaeological organizations, and a variety of other member services provided. The Board of Directors has requested an early review of the Standards and Guidelines, but the MTCS is not prepared to act until 2016. However, the Board has worked successfully to ensure that changes to the Standards and Guidelines are being made to reflect "real" situations such as different potential criteria and field conditions in Northern Ontario, working in winter conditions, historic sites, etc. Several APA members have requested support in discussions with MTCS or in approaches to archaeological sites. The Board has been there for those members. Our work is far from done.

We are certain that there has been consistent honest and helpful service to members, clear and regular communication with members, consistent effort to maintain open and regular communication with the ministry, and a continuing determined effort to ensure we are complying with our own rules and working to move the organization forward. We will continue to improve our efforts wherever possible.

Positive actions of the APA President and Past-President are abundant, accomplished, astute, honest and carried out without any bias or prejudice. Many of these accomplishments have been supported and assisted by other APA Directors. It is through the strength of our Board of Directors and committees that the APA is able to realize so many of its goals, and we are optimistic that even more valuable and worthy accomplishments can be attained if conducted judiciously, considerately, and, with respect for others, the process and the rules and regulations that govern our industry.

Our commitment to the APA membership is to stay true to our course, which has been positive, accomplished, discerning, sometimes tenacious, and to continue to engage in meaningful discussion with the legal regulatory body that governs archaeology in the Province of Ontario.

Sincerely,

Susan M. Bazely President and Scarlett Janusas Past-President

First Nations Committee

As First Nations Director, I introduced a member with a minor dispute with the Huron Wendat to their current cultural committee. I am advised they resolved differences amicably with no need for intercession by APA and that apparently MTCS was unable to provide correct contact information to our member.

I met as an independent consultant with the Mississaugas of New Credit, who kindly came to my home, and noted there is a discrepancy with their

territorial map which was recently changed with an eastward extension into Clarington. This intrudes into the traditional territory of Scugog Island First Nation, a fellow Mississauga Nation. New Credit is not a signatory to the Williams Treaty. There have been some discussions between the two Nations about who has their traditional territory where, especially east of the Rouge River. Attached are four maps (Figures 1 to 4)**(editors note:due to the size and importance of these figures they have been placed at the end of the newsletter starting at Page 15)**, two produced by New Credit and two from Williams Treaty. Members need to carefully determine who is the appropriate First Nation to consult and are at a minimum encouraged to check these maps(especially the Williams Treaty Clause 2 map) and consult with Scugog Island First Nation when working east of the Rouge River and New Credit when working west of the Rouge River. There will be overlaps between the two, obviously in both directions. Beyond that, I am hopeful that the two Nations will work out a reasonable and collaborative compromise about who consults where so archaeologists and their clients can work without excessive complication or cost. An initial meeting of the consultation co-ordinators from both Nations has already taken place and another is proposed. Please keep in mind that according to MTCS regulations consultation is not required at Stages 1 or 2 but is optional.

Laurie Jackson
Director, First Nations

Communications Committee

The committee has broadened its mandate and will now encompass APA Communications as a whole, both internally and externally including publications, social media, website and newsletter . Formalizing this change is currently in progress.

Douglas Yahn
Communications Committee

Innovations and Process

The business of archaeology in Ontario is ever changing. 2015 is shaping up to be an interesting year for consultants. As far as innovative approaches and technological advancement in either the lab or in the field, what stood out for you in 2014? What will we be seeing in 2015 that has you excited? Visit the APA Facebook page or the website and let us know!

Douglas Yahn
Innovations and Process Committee

Education and Training Committee

New – Education and Training Tab on the APA Website

The Education and Training Committee has been working hard on ideas that will assist members with continuing training through workshops, on-line courses, etc. Once you log onto the APA website, you will find a new Education tab on the left hand side. Very soon – hopefully by the time this newsletter is released – you will see numerous links to free courses, or courses being offered by other agencies, or by the Association of Professional Archaeologists. To leave you with a teaser – if you go the FutureLearn.com website – you can avail yourself of "free" courses. Three that we think might be of interest to people are:

The Enterprise Shed: Making Ideas Happen
Newcastle University

Everyone is a thinker and a doer. Everyone is entrepreneurial. Turn your ideas into action with this free online course.
https://www.futurelearn.com/courses/enterprise-shed

Contract Management: Building Relationships in Business

University of Southampton

Learn to build relationships and manage contracts successfully with this free online course backed by UK government and IACCM.

https://www.futurelearn.com/courses/contract-management

Behind the Scenes at the 21st Century Museum

University of Leicester

Get an introduction to museum studies with this free online course. Learn about the people and ideas that shape museums today

https://www.futurelearn.com/courses/museum

While these courses are offered from a more "British" perspective – there are elements that will no doubt be transferrable to Ontario.

Please keep coming back to the Education tab periodically to see what else we have found out there for you!

Membership

The Membership figures for this month remain comparatively constant with previous months. Membership remains constant at 100 active members in good standing. Several renewals and new member applications are pending. The figures are tabulated from the Website Database. These are,

Total Contacts: 107
Membership Good Standing: 100
Professional Members: 67
Field Directors Members: 9
Associates: 12
Student Members: 7
Honourary Members:: 5

Total Proxy Members: 76

We are beginning to see an influx of Research Archaeologists and Field Directors thanks to a corporate discount offer by the Board of Directors. Members interested in a Group Discount rate should contact the Membership Director, James B. Bandow at members@apaontario.ca *Please note that you need to nominate a minimum of 10 members to get a discount code.*

James B Bandow
Director, Membership

Correspondence

Open Letters

An open letter to the Ministry of Tourism, Culture and Sport, Association of Professional Archaeologists, Kettle and Stoney Point First Nations, Lambton Historical Society, Lambton Shores Mayor and Council, Ontario Museum of Archaeology, Lambton Heritage Museum.

I have a concern with the efficacy of the planning department here in Lambton Shores when it comes to the implementation of the required screening process for archaeological and heritage potentials. A particular concern is the recent destruction of a nineteenth century farm and homestead located within the town of Grand Bend.

I have been a licensed archaeologist under the provisions established for professional archaeologists for the province of Ontario for around twenty years. I have resided in Lambton Shores for several years now, and have come to realize the vast nature of archaeological potential in this region. Much of Lambton Shores has in fact been designated "high archaeological potential" as per the municipal heritage master plan study undertaken by Fisher Archaeological, primarily due to the existence of the dunes, the Ausable River, and Lake Huron- creating a desirable environment for settlement of all types throughout history. I chose

the career I did because I believe that the protection of heritage resources is important to our understanding of the depth of human existence here, something that we can take pride in as a part of our attachment to an area such as this. In short, it makes us more aware of our own "roots" and others; more aware of those who went before us, and more "grounded," if you will, in our own landscape as a result.

Recently I noticed that the old farmhouse and associated property adjacent to the Shoppers Drug Mart and Sobeys in Grand Bend was being demolished and excavated for town sewer and service connections, supposedly to accommodate the new location of the liquor store.

Naturally, I'm interested and concerned whenever I see ground being turned up which may have considerable archaeological potential (i.e., either First Nations or Euro-Canadian/pioneer settlements, including cemeteries). The provincial legislation requires that the county and municipal planning departments "screen" areas subject to development
in order to identify potential for archaeological/heritage resources. The primary criteria is if an area subject to development is within 300 meters of a watercourse of some sort, it has medium to high potential for an archaeological site to be present.

The property mentioned being excavated by large machinery lies well within this range, in fact, it is situated in immediate proximity to a stream which in turn runs into the Ausable River. Additionally, the now demolished farm and property has a history which extends well back into the nineteenth century, making it a prime candidate for both First Nations and historic immigrant settlement.

When I asked the planner for Lambton Shores whether an archaeological assessment had been conducted for this property prior to it's development, she replied no. When I asked why this was the case, given the high potential for heritage resources to be present, she stated that they never do archaeology assessments for "site plan reviews." When I asked why there should be this exemption, since a "review" should be just that, a review which includes archaeology (and is part of the government mandate for ANY area with high archaeological potential), I was met with silence. I didn't go as far as to ask what if a bunch of human bone is dug up? A cemetery perhaps? What then? Load it into the dump truck and take it away as quickly as possible?

All planning departments are supposed to implement the archaeology screening "template" equally, but for this municipality at least, heritage resources seem to take a back seat to the expediency of the development process, and since the legislation protecting heritage resources doesn't have any "teeth" (or few teeth), the planner can (and does) dismiss the required screening process as deemed necessary. That is, a good deal of small acreage proposed developments, even if of high archaeological potential, are slipped through the

planning process without applying the stipulated (legislated) screening. So we find that there are in fact major discrepancies between the county/ municipal planners, and perhaps even within a given planning department itself. For example, the property in question has arguably higher potential for archaeological resources than does the large acreage across the highway, which was subject to an archaeological assessment. I'm sure the developer who had to jump through the required "hoops" in order to satisfy those conditions would be angered to discover that the same didn't apply to his neighbour across the road.

In short, the archaeological screening template is in place in order to identify places of concern such that costly and embarrassing discoveries (such as burials) are minimalized in the ensuing development process. In this particular case, the potential for a cemetery, either First Nations or Pioneer family plot is present due also to the well drained soils and proximity to the Grand Bend village site of the 19th century. The risk taken by this planning department in "ploughing" the development through without conducting the heritage background research and archaeological survey is thus considerable. Imagine the scenario if human bones and skeletons were found in the backdirt piles of the earthmoving machines, a scenario that has unfortunately occurred too many times in Ontario's history (locally, the dunes at Northville area were the site of skeletons in the dump truck scenarios in the course of aggregate extraction over the years). And importantly, these sites occur on small parcels of land- alike those being routinely dismissed from archaeological assessments by the current planner.

We can imagine what an insult the destruction of a burial or cemetery would mean to the dead and their surviving relations; a total disregard and lack of respect for those who dwelled here before us- those who often paved the way so that we in contemporary times can live the way we do. That of course, the encountering and destruction of a cemetery is a worse-case scenario, but these situations continue to persist despite the legislation aimed at implementing the necessary assessments in order to identify and protect them. For example, the existence of a long relic cemetery from the 19th century, located within the village of Port Franks, has been known about for considerable time (and thanks to a local history). However, until I finally registered the cemetery as an archaeological site (a small First Nations settlement also occurs on the site), and after about three years of communicating with the municipality for its formal recognition and protection (the municipality was in fact unaware that the cemetery is situated on it's property), a historical plaque is finally forthcoming to be installed on the site.

Although the cemetery is in no obvious danger (from development at least) in the short term, who knows what might happen 50 or 100 years or more from now when a future development might occur (and in this case, as with many others, there are no grave markers remaining to reveal it's existence). This type of situation in fact happened with a cemetery located in London, which was partially destroyed by a small residential development before archaeologists were able to salvage excavate the remaining graves.

The upshot of all this is that the planning department here is in fact "playing with fire"; the odds are that sooner or later one of these small developments that are routinely bypassed because "site plan reviews" are not subject to archaeological developments will come back to "bite" you in the form of either First Nations or Pioneer settlement, or the "Big Bite"- human remains. All which could have been avoided with an archaeological assessment, which would avoid the much greater costs of having to "backpeddle" in order to save face. Considering what is at stake, isn't it really too much of a gamble to proceed with "business as usual?"

It is my hope that the planning department can provide us with the required process in order to ensure that our heritage resources can be preserved for future generations.

Sincerely,

Dave Riddell

(Note: This letter was provided to a number of individuals at the organizations listed)

Workshops

Trent University Archaeological Research Centre Hosts a "Bifaces of Ontario" Workshop

by William Fox

On Friday, February 20th, a dozen experts from across Ontario attended a one day workshop at Alumni House in Peterborough. Holly Martelle, Peter Timmins, Jacquie Fisher, Tom Arnold and Chris Ellis came from London, while Brian Deller travelled from Grand Bend. Scott Hamilton from Lakehead University in Thunder Bay brought a northern perspective to the gathering, and was joined by Ron Williamson and Andrew Stewart from Toronto; as well as, James Conolly, Gordon Dibb and Bill Fox from Peterborough. Master flintknapper, Dan Long, brought his displays and materials from Niagara Falls. Unfortunately, a previous commitment prevented Jean-Luc Pilon (Canadian Museum of History) from attending.

What ensued was a full day of presentations and discussion concerning the need for an identification manual/digital platform product serving both the academic and archaeological consulting communities. Interest in this concept had been expressed by the Ministry of Tourism, Culture and Sport; while, it was also noted that there is a clear demand on the part of the public (avocational archaeologists) in Ontario; as well as, in adjacent provinces and states for such products.

Potential products considered, based on "client needs", ranged from a standard book size or smaller field guide format volume to an electronic document (including 3-D images) to a tablet app., which would allow users in the field to match newly discovered artifacts with various formal images. The workshop participants expressed a commitment to initiate the outreach necessary to bring our project to a successful completion – enlisting electronic platform specialists, identifying the location of large and diverse collections of "diagnostic" bifaces from restricted geographic areas, locating "single component" site collections, and indicating if associated carbon/bone samples exist for potential radiocarbon dating, etc. It was suggested that more formal documents might identify specific contributors per "type" definition (hence, task teams), and include a preamble or introductory sections concerning raw material distribution/acquisition, "chaine operatoire" information, and "life history" impacts on form, resulting in a more encyclopaedic product.

As a field aid, it was recommended that other diagnostic tool forms associated with specific biface types be described, in order to enhance the potential for an accurate cultural attribution of archaeological sites. Nevertheless, the object is not to produce an *Archaeology of Ontario* or another "Green Bible". Participants agreed that no matter the ultimate product, the result will constitute a "work in progress" and should be structured as a "living document".

Figure 1. Dan Long knapping

During the afternoon, specimens and/or images were available for viewing, which generated a great deal of animated discussion concerning the current status of our understanding regarding the cultural affiliation of specific biface "types". This dialogue was enhanced by Dan Long's demonstration (Figure 1) of biface production and subsequent re-sharpening modification of form. Finally, all agreed that it had been an enlightening and productive day, as a development strategy was initiated, and a commitment received for specialist staff support in the development and refinement of the proposed digital products. Over the next few weeks, task teams will be identified as the development process unfolds.

Education

Up-Date on the Certificate in Cultural Heritage Management program at Trent

by Helen Haines and William (Bill) Fox

As many of you are aware, we have been working with various members of the CRM industry, the Archaeology Branch of the MTCS, and Trent

University to craft a certificate program in Cultural Heritage Management.

Although we were able to design a year-long program with courses that would cover the skills identified during our December 11th workshop, we encountered difficulties in the establishment of the Certificate in Cultural Heritage Management (CCHM). Most challenging was the issue of "academic double-dipping", which we only became aware of in late February; in short, it appears that there are Ministry of Training, Colleges and University rules regarding students not being able to have the same course apply to more than one degree or certificate. Moreover, if the student has already taken one of the required CCHM courses, they would not be able to take it again without overwriting their previous grade.

While there are solutions to these problems (creating new courses and/or course codes), with Department of Anthropology faculty meetings occurring only once a month, and the last meeting being the second week of March, we did not have enough time to resolve all these issues and gain the necessary university administration approval to roll out the certificate program this Fall. The Department of Anthropology has agreed to reconvene on the issue in September and we hope to have the CCHM in place for September of 2016.

While we are disappointed that we could not make more immediate progress on this initiative, we want to make sure that we up-hold Trent University's tradition of excellence and create the best program possible. We believe that by deferring the certificate program a year, we can ensure that all concerns are addressed and accomplish this goal. We want to thank everyone for their assistance and contributions in helping get the proposal crafted and assure you that we are committed to making the CCHM a reality.

Technology

Shark Marine Dive Tablet

by Mike Aitken

(Editor's note: Mike gave a presentation on this tablet at the last AGM and the APA has negotiated a deal for APA members, see end of the article for details)

The Dive Tablet (Figure 1) is an affordable solution for anyone that requires accurate underwater positioning. Using advanced dead reckoning or GPS, the Dive Tablet allows operators to map underwater habitats, document archaeological sites, take geo referenced photos and video (Figure 2), or simply navigate underwater. The Dive Tablets small size and rugged construction makes it suitable for use on RHIBs and other surface vessels where it can be used for navigation, or to track and communicate with divers using Shark Marine's Sub-NET System.

Figure 1. Dive Tablet


Figure 2. Example of photographic capabilities.

Although designed for maritime use, the Dive Tablet is also useful on dry land. The unit's rugged. waterproof construction, make it ideal for use in the field when operating in austere conditions. Its DiveLog software allows an operator to plan and navigate search routes using the systems built in GPS or an External RTK GPS (Figure 3); to record their actual route travelled; to mark specific targets or locations; to document sites with geo referenced photos and HD video taken with a built in 8 mega pixel camera which can then be used for 3D Photogrammetry; to interface with and record geo-referenced data from other field equipment such as magnetometers and metal detectors. Upon completion of a project the DiveLog software will generate an HTML report detailing the area covered and all of the information collected on targets of interest (Figure 4).


Figure 3. GPS and Tracking

The Dive Tablet normally retails for around $12,500 CDN including DiveLog Software (depending on options), However Shark Marine has worked out a special price plan with the APA and will offer 10 – 15% discounts on select quantities as well as group training rates.

Figure 4. Dive Log report

Digital Globe Now Offers 30 cm Satellite Imagery

by Jim Finnigan

It's a split. Customer supplied background photos and maps are either crystal clear and useful to archaeology, or they are complete crap. When it is the latter, one option is to buy your own. If you do not mind an image that is at least 3 months old, you can buy relatively inexpensive imagery out of the archives (for 4 band colour approximately $541 (it is is sold in US$ and our exchange rate is not that good right now). I buy imagery for some of my projects and half the time I end up transferring the imagery I purchased, at cost, to my customer ("where did you get that image - I want it").

I do not buy imagery for every project but there are those where you need a better base map and a regional overview, or you want to see what the project area looks like now. Generally speaking, without correction, the spatial accuracy of a satellite image is better than any GIS data you have. So you can plot your data directly on the image without wasting your time in trying to align you information with a base map .

For a few years now, you have been able to buy 50 cm imagery (each picture element is 50 cm by 50 cm) but that resolution was actually based on the US Licensing conditions and not on the resolution that the information was being collected at. Last year those licensing restrictions were lifted and almost immediately you could buy 40 cm imagery. DigitalGlobe just announced the availability of 30 cm imagery. So each picture element is now smaller than a shovel test.

I have enclosed a picture (Figure 1) showing the difference between 30 cm and 50 cm. It is not a particularly beautiful picture as it shows mining trucks, but you can see a quality difference.

Figure 1. Difference in quality between 30 cm (left) and 50 cm (right) pictures.

There is google earth but there are advantages to just buying an image. The spatial accuracy is better, the resolution is better and you have clear licensing, yes you can reproduce it in your reports and slides and posters.

If you need more information on the use of satellite imagery in archaeology you can contact me (jim@westernheritage.ca) or you can go to the DigitalGlobe website at www.digitalglobe.com.

Safety First

Blastomycosis – Archaeologists Beware!

by Scarlett Janusas

The following has been derived from articles in the Manitoulin Expositor – blasto being the cause of a recent death.

Blastomycosis is a rare fungal infection caused by breathing in a fungus (blastomyces dermatidis) which is found in wood and damp soil. Blasto is a fungus or mould that grows best in soil with high organic content (rotten wood or vegetation) and low pH levels.

Exposure may also occur by getting the fungus on a skin scrape or cut. Hot spots in Ontario for this

fungus include the Great Lakes, with Kenora as the primary hot spot in Ontario. Apparently cases have been reported as far north as Chapleau.

It is not communicable! Once a person comes in contact with blasto, the incubation period is quite long, anywhere from three weeks to 3.5 months before the patient begins to exhibit symptoms. Blasto is difficult for doctors to diagnose, as symptoms can be very different: including a persistent cough, muscle aches, joint pain, tiredness, chills, low-grade fever, skin sores or unexplained weight loss, and often mimics pneumonia. Diagnosis of blasto can be obtained through a saliva sample, pus from skin lesions, or urine.

The risk of contracting blasto is low for most people, however, those with a weakened immune system are more vulnerable, and those people, like archaeologists, who work in wooded sites after disturbance of contaminated soil (soil with the fungus).

The Sudbury and District Health Unit advises using caution when working in areas of rooted wood, and to record time and dates exposed in those conditions. Wearing an N100 mask, gloves and a long sleeved shirt are also recommended. Antifungal drugs are used to combat blasto, but it takes a long time to kill the fungus.

In a study of 143 blastomycosis patients undertaken in Northwestern Ontario from 1988 to 1999, researchers discovered a mortality rate of 6.3% (Manitoulin Expositor January 28, 2015).

FYI

Time Periods

by Scarlett Janusas

The following are some definitions and abbreviations for common time periods

2.5 million years ago is considered "deep time".

Quaternary Period

Pleistocene: 2.59 million to 11,700 years ago

Holocene: 11,700 years ago to present

Abbreviations

mya	million years ago
kya	thousand years ago
BP	January 1st, 1950
BC	Before Christ
BCE	Before Common Era
AD	Anno Domini
ACE	After Common Era

Old Survey Terms

by Tom Arnold

While doing some archival research last fall for Fisher Archaeological Consulting, I came across some 19th century area survey terms in the Land Registry Abstracts that I had not encountered before. The two terms were a 'Rood', identified with 'R', and a 'Pole', noted by a 'P'.

A 'Rood' is equal to 1/4 of an acre. 'Pole' can be either an area of linear measurement and is also sometimes called a 'Rod' or 'Perch'. As a linear measure a 'Pole' equals 16.5 ft. and as an area measure or 'square pole' it equals 16.5 ft. x 16.5 ft. (DirectLine Sofware 2015)

References

Direct Line Software

2014 Survey Units and Terms, May 22, 2014. http://www.directlinesoftware.com/survey.htm accessed March 21, 2015.

Field Tips

Was that Percentage Slope or Degree of Slope, *Mea Culpa*

by Tom Arnold

In the last newsletter I had a small article on how to determine the % of slope while doing Stage 2 field work (Arnold 2014:6-7). I erroneously noted that the Standards and Guidelines state that a 20% slope or greater is too steep and does not need to be assessed. In fact the Standards and Guidelines (Government of Ontario 2011:28) (Section 2.1. Standard 2 a iii) state that 20° of slope or greater is considered too steep. Considering I actually did

look these up at the time and still read 20% of slope instead of 20° I can only put this error down to somehow getting percentage stuck in my brain so that is what I read (or what is more commonly known as a brain cramp). That said, what I wrote was accurate for determining the % of slope, it was just not what you needed to know. The following article corrects that mistake. By necessity I will need to repeat parts of my previous article.

Again I am assuming you are in the field with basic equipment such as tapes, plumb bob and maybe a hand level (discussed below). Getting the degree of slope can also be done using a simple hand held compass. Since different brands and models have different features I will not try to explain it. If you are not familiar with using a compass to determine degree of slope most reputable brands will have an instruction manual or cards. Look for a section titled 'Clinometer' or 'Avalanche Scale' and follow those instruction to get your degree of slope.

The formula for this calculation is relatively simple: it is $(rise / run) * 100 = \%Slope$. Figure 1 shows this graphically. The only stipulation is that the units be the same for both the rise and the run measurements (e.g., metres, feet).

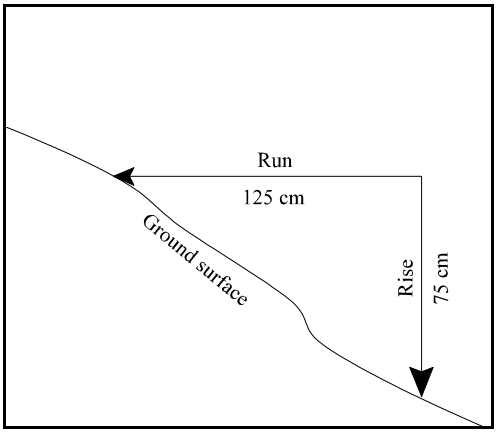


Figure 1. Determining % Slope

Thus if the rise is 75 cm and the run is 125 cm, which means that over 125 cm the ground rise (or falls) 75 cm, than the %Slope = 60 % ((75/125)*100 = 60)

.

For accuracy it is important that the 'run' measurement be level and the 'rise' measurement be perpendicular to the run. Ensuring the accuracy of both may be difficult while conducting Stage 2 work in the field. It would require both a line level (and presumably a string to attach it to) and a plumb bob to ensure perpendicular measurement, as well as at least one or two other people to help hold tapes etc.

An alternative would be the use a bit of old survey gear known as hand level (Figure 2). It is described

Figure 2. Hand Level

as a hollow tube with lens at each end, a spirit bubble and cross hairs. The spirit bubble is on the outside of tube and is reflected inside by mirrors. Using it involves "Sighting through one end, one sees the bubble of the spirit level reflected in a mirror and can raise and lower the angle of sight until it is level." (Fladmark 1978:24).

If you are standing on a slope using the hand level and looking up slope you would start your 'run measurement' at the point on the slope where the hand level indicates the ground is the same level as your eye. Measuring out from the point a set distance, say between 1 to 2 m, and then down to the ground gives you the 'run' and 'rise' of your slope. Again this may require at least one other person to perform these measurements accurately (Figure 3).

Degree of Slope

To calculate the degree of slope from the percentage of slope your will require a calculator or a calculator app on your phone that does trigonometry. The formula for converting % slope to degrees of slope Degrees = (% Slope/100) x Arctangent (also known as the 'inverse tangent' and noted as Tangent $^{-1}$ on some calculators) (CalcuNation 2015). The magic number of 36.4% of slope gives you 20° of slope (1728 website: 2015) any percentage of slope greater and the area is too steep.

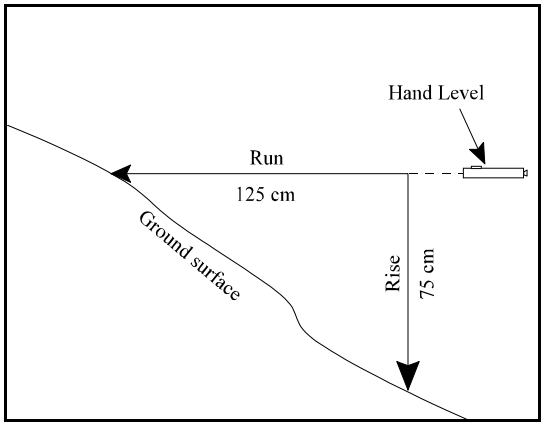


Figure 3. Using Surveyor's Hand Level

I hope this clarifies my earlier error and I truly apologize for any problems this may have caused.
There are also online calculators such as this one http://www.calcunation.com/calculators/general%20math/geometry/degrees-to-percent.php that will help you calculate % of slope (CalcuNation 2014).

References

Arnold, Tom
2014 Calculating Percentage Slope. APA Newsletter 2014-02, Fall Edition.

CalcuNation
2014 CalcuNation website, Angle Degrees to Percent Slope Calculator. http://www.calcunation.com/calculators/%20generalmath/geometry/degrees-to-percent.php accessed August 21, 2014.

Fladmark, Knut
1978 *A Guide to Basic Archaeological Field Procedures*. Department of Archaeology, Simon Fraser University, Burnaby, BC.

Government of Ontario
2011 *Standards and Guidelines for Consulting Archaeologists*. Ministry of Tourism and Culture.

Wikipedia
2014 Wikipedia, Slope. http://en.wikipedia.org/wiki/Slope accessed August 21, 2014.

APA is Looking for Volunteers

Don't want to make the big commitment and be on the board, but still want to make a contribution?
The APA now has a number of committees – if you are interested in volunteering – please check the webpage for emails of committee Chairs.
First Nations Committee - Keith Powers

Education Committee - Ruth McDougall

Communications Committee - Douglas Yahn

Self-Regulation Committee – Norbert Stanchley

MTCS News

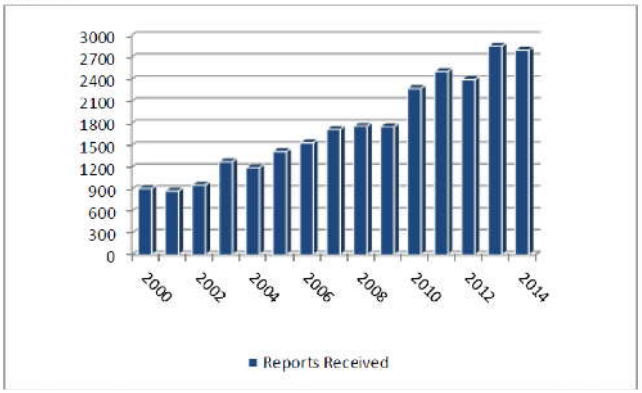
Reports Awaiting Review

In the past 10 years, the archeology program has seen an almost tripling of archaeological reports submitted for review (Figure 1). The increase in volume can be attributed to several factors, including a boom in the housing development market, increased infrastructure spending, and the government's green energy agenda (e.g., approximately 20% of the increase can be attributed to reports associated with renewable energy projects)

Reports are currently reviewed based on identified priorities such as renewable energy projects, provincial and municipal infrastructure projects, and arge residential developments. These priorities have increased the pressure to complete reviews under expedited timelines. As a result, the program has

dedicated most resources to accomplish this task, and in turn, reports that do not fit high priority criteria are deemed lower priority for review and are usually addressed in sequence.

Figure 1



However, the ministry has put in place an expedited review process to address situations where a proponent, whose project does not fit the high priority criteria, but requires a review quickly (e.g., an impending municipal decision on a housing development, or an important banking deadline). In those cases, a formal request can be made to the ministry for the review to be expedited. Currently, the ministry's goal is to have the reviews completed within 20 business days, once the report package is deemed complete.

At various times between 2009 and 2015 work has been undertaken by the ministry to stabilize or reduce the backlog of reports requiring review. The undertaking is usually accompanied by an influx of review letters sent to licensees. Since December 2014, Program staff has been working on a backlog project. This includes several staff dedicated to reviewing these reports. Currently, there are approximately 1700 reports awaiting review. To put this in perspective, approximately 13,000 reports have been submitted to the ministry between 2010 and March 2015. The reports awaiting review represent approximately 13% of that total. While licensees will be receiving review letters for reports submitted as far back as 2010, the vast majority of reports awaiting review have been received in the past two years.

Since 2011, the backlog strategy has shifted focus from simply catching up to implementing new processes that would reduce the number of reports becoming part of a backlog. These include:

- Implementation of the *Standards and Guidelines for Consultant Archaeologists* - resulted in a clearer set of rules and expectations.
- Launch of PastPort - resulted in better tracking, reduced the duplication of data being entered and more consistent review practices. PastPort was designed based on the existing systems, but to reduce the time needed by a reviewer to complete a review .
- Changes to the report review process - including focusing reviews on key indicators of compliance, and entering reports into the register without a technical review when determined to be low risk.
- New protocols including incomplete and non-compliant reports are designed to reduce the time required for the review of a report.
- The process for assigning reports was revised to balance the review turnaround times throughout the province.

Upcoming Conferences

Canadian Archaeological Association / Association canadienne d'archéologie Annual Meeting for 2015, St. John's, Newfoundland

http://www.mun.ca/caa2015/intro.html

Ontario Archaeological Society Annual Symposium

CALL FOR PAPERS

Midland, October 16 - 18, 2015

http://ontarioarchaeology.on.ca//2015call.php

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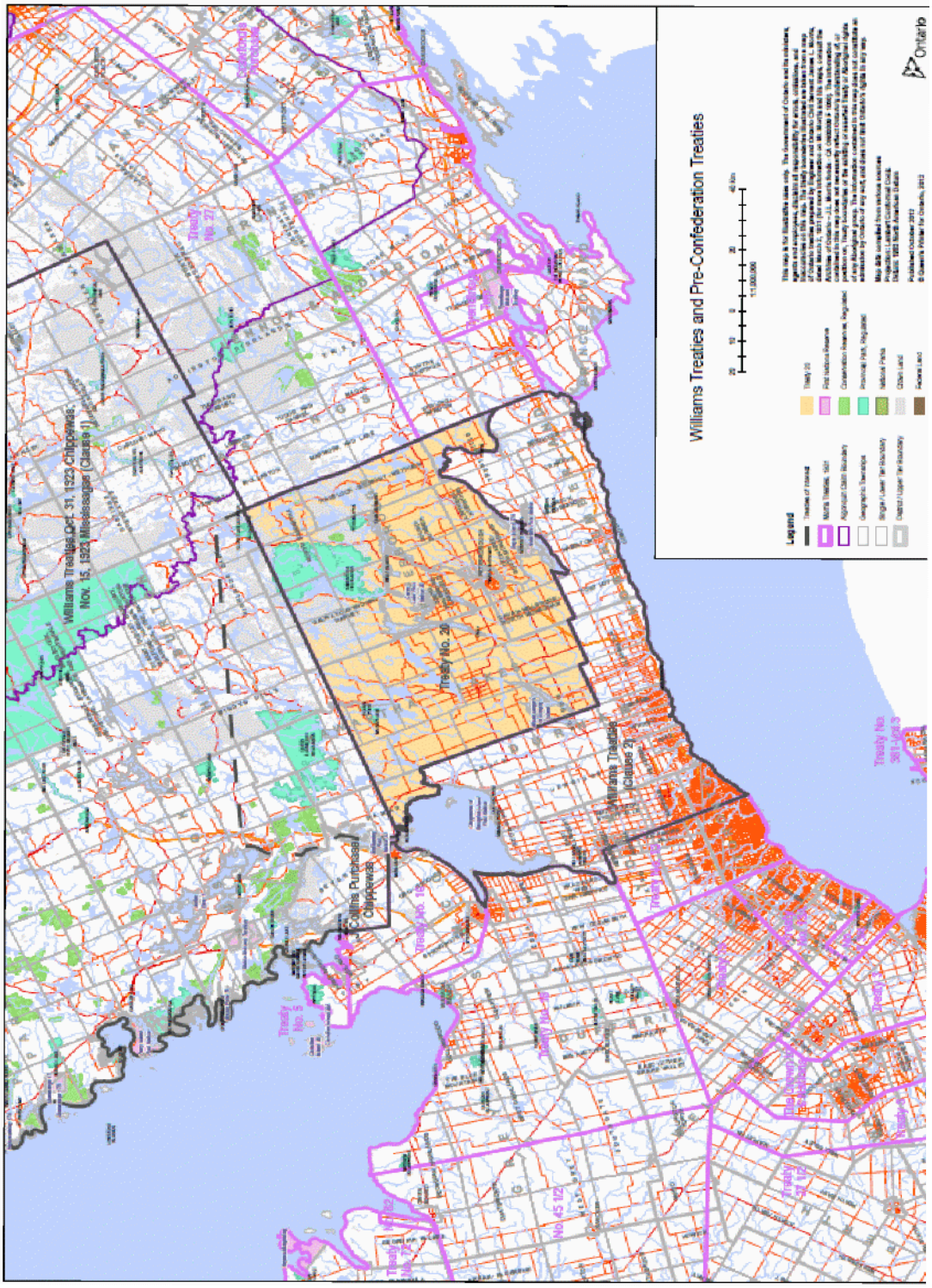

Figure 1. Williams Treaty and Pre-Confederation Treaties

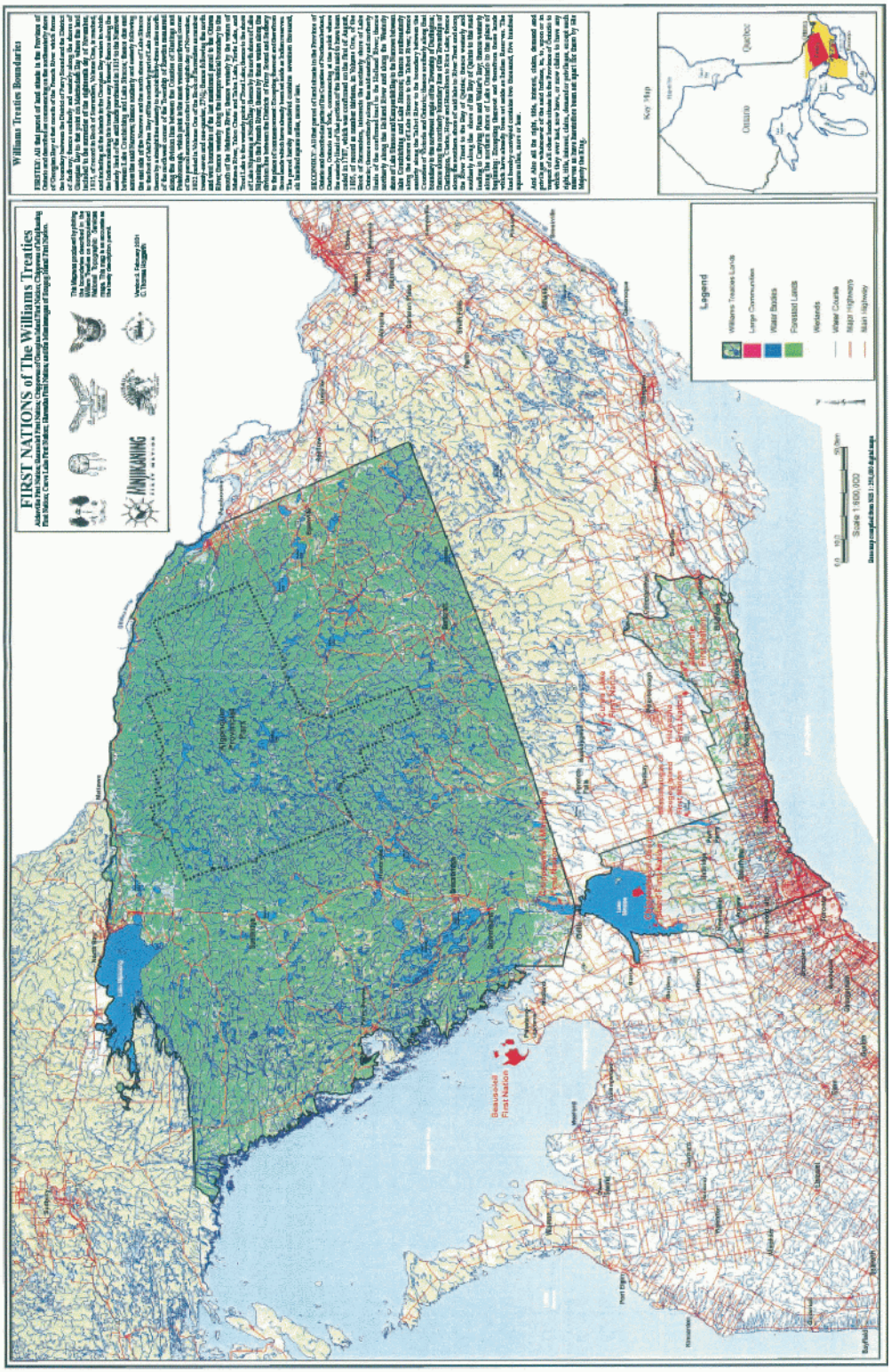

Figure 2. 1923 Williams Treaty

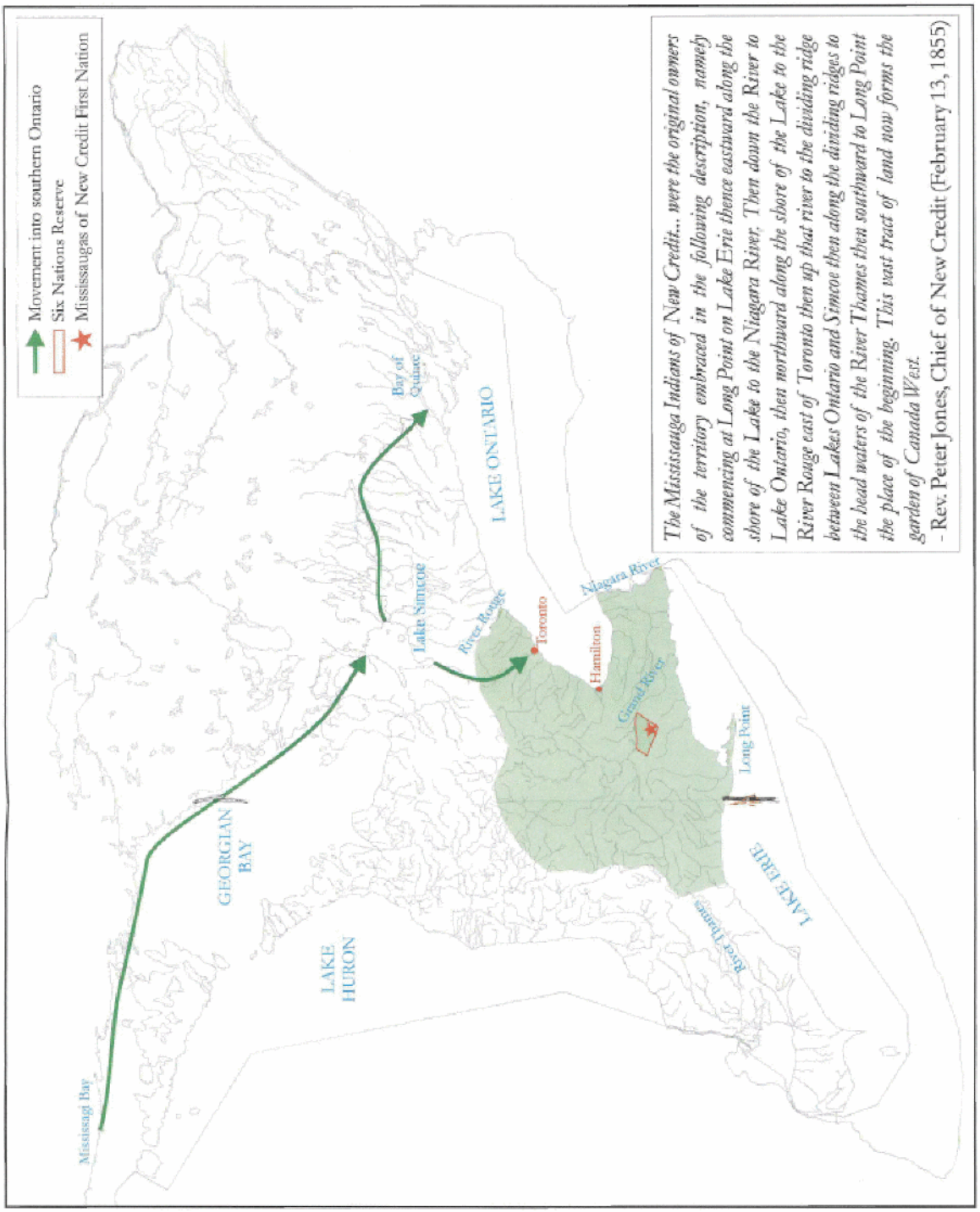

Figure 3. Mississauga of New Credit ca. 1695

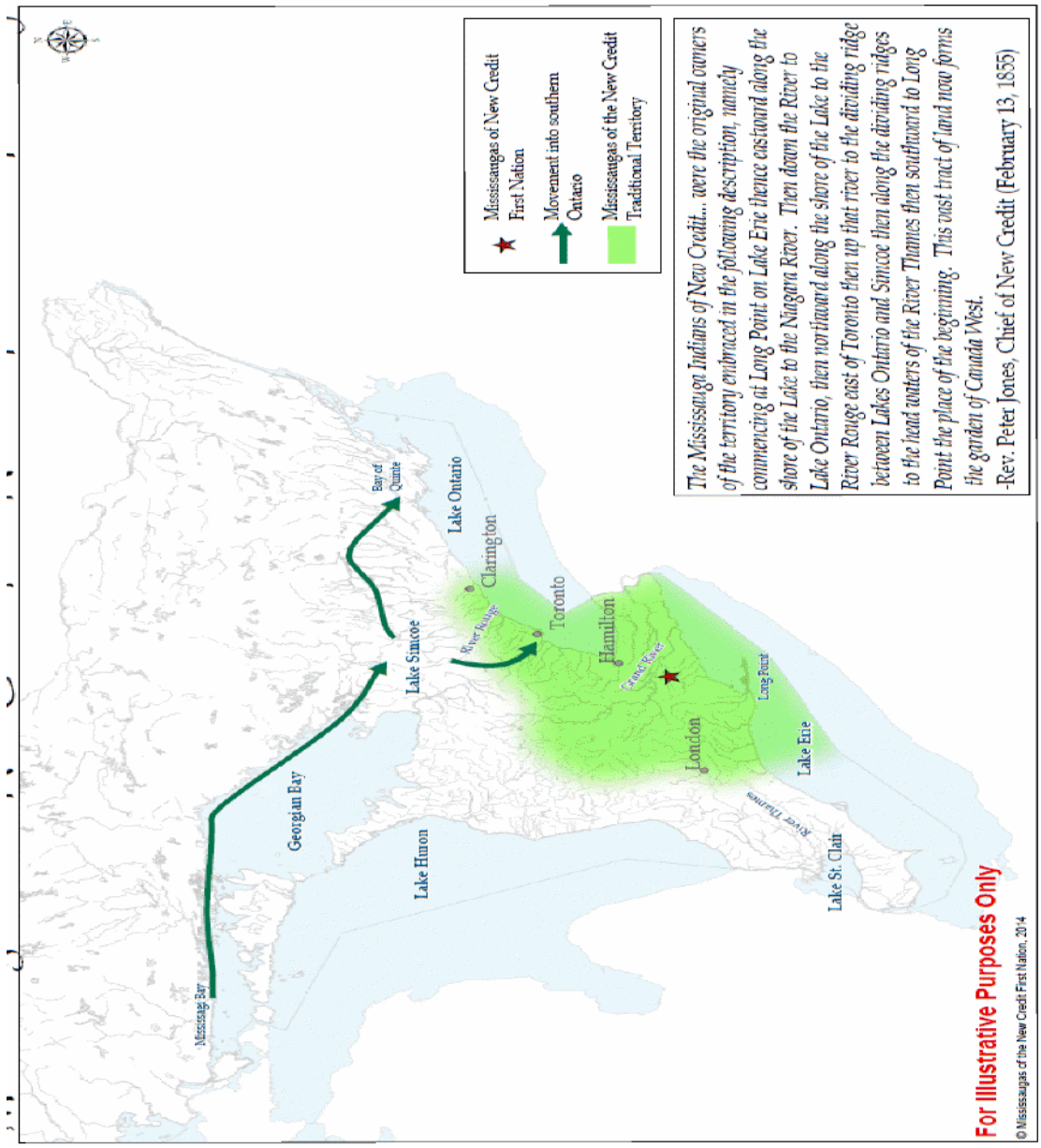

Figure 4. Mississauga of New Credit Traditional Territory.