

Ontario Professional Surveyor



on the cover ...

**Rideau Canal Skateway,
Ottawa, Ontario – Site
of the 2022 AOLS AGM**

In this special issue ...

**A Collection of Survey Law
Articles written in Memory
of Professor David W. Lambden**

plus our regular features

**Educational Foundation
News from 1043
Book Reviews**

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Winter 2022



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ON THE COVER ...

Rideau Canal Skateway at Night – credit Ottawa Tourism. The 130th AOLS Annual General meeting will be held March 2 to 4, 2022 in Ottawa, Ontario. Each winter, the National Capital Commission transforms the historic Rideau Canal into the world's largest skating rink. The Skateway winds its way through the heart of downtown Ottawa, over a total length of 7.8 kilometres. The Rideau Canal is significant because it is one of Canada's National Historic Sites. In addition, it was declared as a UNESCO World Heritage Site on June 27, 2007. See more information on the Rideau Canal in The Last Word on page 36.

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President's Page

By Gavin Lawrence, O.L.S., C.L.S., MBA



Before the curtain lowers on my presidency, allow me to take this opportunity to express my appreciation for the support provided by the AOLS staff under the leadership of our Executive Director Brian Maloney. The amount of backend heavy lifting done by the staff is astonishing. This small but mighty team deals with everything from common queries, reviews, IT&S, AGMs, to continually scanning the environment and staying abreast of new developments. The public and members are well served by this competent and diverse team. With their assistance, my tenure as your President has been much calmer and more enjoyable, so thank you to the AOLS staff for your hard work and dedication.

The main discussions on the pandemic have changed from the waves of infections to the detection and spread of variants to booster jabs. This along with the ever-changing unknowns has led us towards an uncertain winter. The pandemic continues to have a firm grip on our lives and throttles humanity's desire to return to some sort of business as usual. Please continue to abide by public health guidelines and together we shall overcome!

The AOLS recently commissioned an external regulatory review that benchmarked a wide range of activities against the best practices for regulators. Even though the report calls the AOLS a high performing regulator and recognizes the outstanding work done, importantly, it goes on to identify room for improvement. Moreover, I am glad to note that according to the author, all interviewees showed a commitment to public interest. Of the thirty-two recommendations set out in the report, fifteen will require legislative change in order to implement them. The latter will form part of the foundation for possible changes to the *Surveyors Act*. Over the coming months, Council will seriously consider these recommendations and take the appropriate action. I urge you to read this now public report and draw your own conclusions.

Since my last article, I attended the Association of Nova Scotia Land Surveyors' AGM virtually and the Ordre des Arpenteurs-Géomètres du Québec's in-person. I found the presentations and open forum discussions particularly informative. In addition, I applaud their planning and the safety protocols they had in place concerning COVID-19. I felt pretty comfortable and safe during the well-attended Québec AGM. The participants were respectful of public health guidelines, which made me feel optimistic for the future of in-person AGMs.

Planning for our upcoming AGM at the Westin Hotel in Ottawa is taking shape. A combination of the pre-pandemic contract with the hotel and some lessening of provincial COVID restrictions has led us to proceed with an in-person meeting. Regardless, many are eager to meet fellow members face to face again. The AGM Planning Committee has a contingency plan in place should the need arise for the AGM to go virtual.

Our AGM theme this year will be ubuntu (togetherness). This southern African word does not easily translate directly to the English language. Generally, people attach slightly different meanings to the word. However, there are common threads woven through each translation. Ubuntu means "I am because we are", which to me means I am who I am because you are who you are and vice versa. At its essence, we all acknowledge and share a universal bond that connects all humanity. Ubuntu provides society with a sense of belonging and cements the fact that we are stronger together, especially when we share and value diversity in society. Embracing ubuntu causes a ripple effect that changes mindsets and builds a sturdier sense of community. We become stronger by reflecting the composition of the society we serve, fostering equity, diversity, inclusion and encouraging reconciliation with Indigenous Peoples. In turn, it strengthens public trust in the Association and serves public interest.

A stable academic home to offer a steady supply of geomatics graduates in Ontario remains a concern. The Association is meeting with academic institutions and doing all it can to find a suitable home. I hope that we can find a long-term solution with an academic institution in Ontario. Our Association, through Executive Director Brian, is also doing a sterling job of keeping the Minister's office informed of our conversations with the academic institutions, external benchmarking and Association activities.

Our association is blessed to have a pool of mature members together with passionate people who give selflessly. We must learn from their experiences and build upon their knowledge. Let us take time to recognize those who help us as an association and honour our veteran surveyors for their contributions and constant support. We owe them a debt of gratitude. As part of a series, this and subsequent issues of the OPS magazine will shine the light on one such person.

Whether it be our lives, the climate, or the pandemic, change has been and continues to be a constant. Let me sign off with a quote from Georg C. Lichtenberg for thought – "I cannot say whether things will get better if we change; what I can say is they must change if they are to get better".



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Executive Director's Notes

By Brian Maloney



Regulating professional surveying in the future

In the last edition of the magazine, I wrote about potential changes that will impact surveying into the relatively near future. In this follow up to that article, I consider how those changes will impact regulators of professional surveying, the Association of Ontario Land Surveyors (AOLS) in our case.

Based on the last article, the pace of change of technology and options open to surveyors can be expected to increase. Additionally, there will be pressure to provide different and alternative products and services that do not meet our current well-defined products. Many of our current standards, which are defined by our regulations, are based on traditional technology and processes. Many of our products are well-defined with some very specific requirements. To enable the new technologies and products, while protecting the public, standards will have to change. Will we generalize them? Will we change how they are updated so they can remain relevant and appropriate?

New technology is making it easier for non-surveyors to take on tasks traditionally performed by licensed surveyors. In some cases, this is a good thing for the public because it causes increased competition and allows companies to differentiate their services. In other cases, it may mean the creation of products and services that may not be in the best interest of the public. Will this cause us to change the area of exclusive practice to surveyors? Will greater public education be required? Will greater efforts be required to address unauthorized practice?

New computing and communication technology, along with the recent pandemic, is changing how companies operate and provide their services. Barriers between professions are starting to be lowered. The *Surveyors Act* requires that the Registrar issue a Certificate of Authorization (C of A) to corporations where the primary function of the corporation is to provide professional surveying services. Should that still hold true into the future or is that limiting innovative companies from serving specialized verticals? Our current Regulation 1026 requires that every surveying office with a C of A be operated and supervised on a full-time basis by an Ontario

Land Surveyor (OLS) and if a surveyor or company wants more than one office location to be supervised by the same surveyor, it requires approval by the Registration Committee. Does this protect the public or restrict access to services in an age of Zoom and file sharing? Should a surveyor be allowed to supervise an office in Ontario while living in Florida? Does a surveyor require a physical office? Are there other ways to ensure appropriate oversight and client relations?

Our current regulatory processes are controlled through our enabling legislation, the *Surveyors Act* and its regulations and by-laws. Although in some cases we have leeway in how we use the power and responsibility provided to us, in many cases we are bound by strict processes, procedures and rules contained within the Act which is dictated by the Legislature. Legislation can be difficult to change and often requires opportunities where the government's and the AOLS's priorities align to get onto the legislative agenda. Although regulations are easier to change, they still require a significant amount of effort on behalf of both the AOLS and government staff and can easily take a year or more to be enacted. By-laws are within our own control and can be made relatively quickly. It may make sense to focus our regulations on higher policy principles and move specific practice standards into by-laws that can be quickly changed as technology impacts our products and services.

As noted in my previous article, society is changing, including its respect for and reliance on professionals. Professional regulators are not trusted in the same way they once were and they have to work hard to be open, transparent and demonstrate that they are putting the public interest and protection at the forefront. This will force us to consider many of our practices, which range from continued increases in transparency of website content and public meetings, involvement of lay members in our decision making, and our focus on regulatory matters as opposed to activities that benefit members.

Times are changing and we need to keep up. Proactive change will help us guide our own future instead of having one imposed on us.



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Thomas Cortens

2119

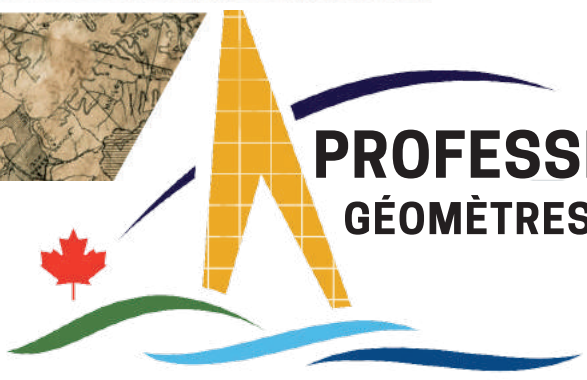
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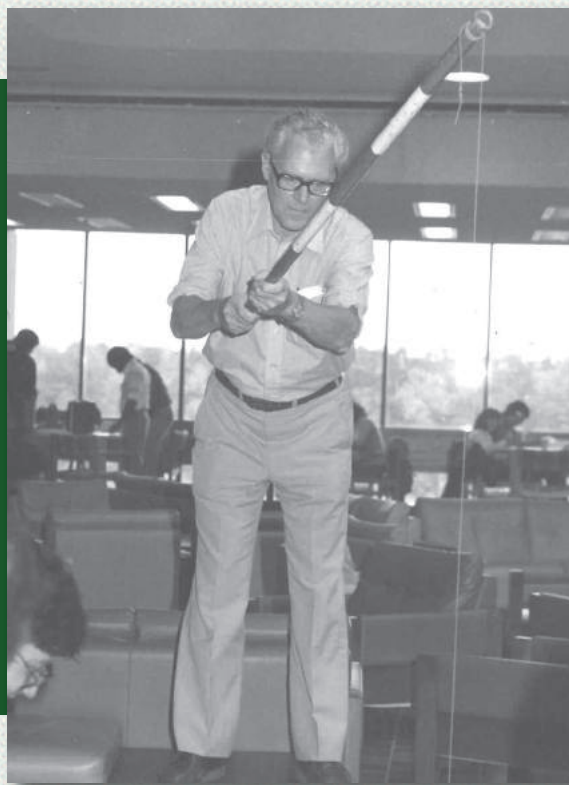
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A Special Collection of Survey Law Articles

David Whitfield Lambden passed away on June 4, 2021. His professional career can best be summarized in *A Tribute to the Professional Career of David Whitfield Lambden, Ontario Land Surveyor No. 821* by Ron and Susan Stewart. It was published in the Ontario Professional Surveyor, Vol. 49, No. 2, Spring 2006, after David was presented with the *AOLS Professional Recognition Award*, the highest honour conferred by the Association of Ontario Land Surveyors, at the 114th Annual General Meeting in London, Ontario.



David Lambden (centre) received the Professional Recognition Award from AOLS President, Paul Church in 2006. Ron Stewart (left) said a few words of introduction.



David was always engaged with his Survey Law students at Erindale College. In this photo (circa 1970s) he is participating in the Survey Games which was organized by the Survey Science students.

David's Contribution to Survey Law

"In 1974 David returned to Canada to lecture in the Survey Science program at the University of Toronto. David's contributions through lecture notes and materials, seminars at AOLS meetings and many publications were foundational to the knowledge of Ontario Land Surveyors today, especially with respect to legal survey principles."

Concurrently with teaching, David practiced as a consultant on survey-related issues. He appeared as an expert witness in several court cases and participated as a factfinder in settling First Nation claims. David continued his consulting business well after retirement as Professor Emeritus from the University in 1994."
(<https://memorials.gilbertmacintyreandson.com/david-lambden/4637927/>)



David often assisted Ron Stewart, OLS, one of his former Erindale College students, with field work. This photo was taken circa 1995 in Tiny Township.

es in Memory of David Whitfield Lambden

The Special Collection of Articles

Introduction by Dr. Brian Ballantyne

David W. Lambden's influence on survey law in Ontario was enormous. Whether as a surveyor, an expert witness, a factfinder, an analyst, a professor, a supervisor or an author, David's expertise in boundary principles – with a focus on riparian boundaries – was most impressive. His passing this past year inspired the OPS Magazine to dedicate this issue to a collection of articles in memory of David written by some of his former Survey Law students at Erindale College, University of Toronto and one of his colleagues. The theme was to be some aspect of survey/boundary law, and not an individual's experiences with David as a mentor, friend, axe-man or drinking companion. However, we have also included some thoughts from the authors on how David impacted them and their careers.

Some Personal Reflections from the Authors

I recall: "Every survey is a potential lawsuit".

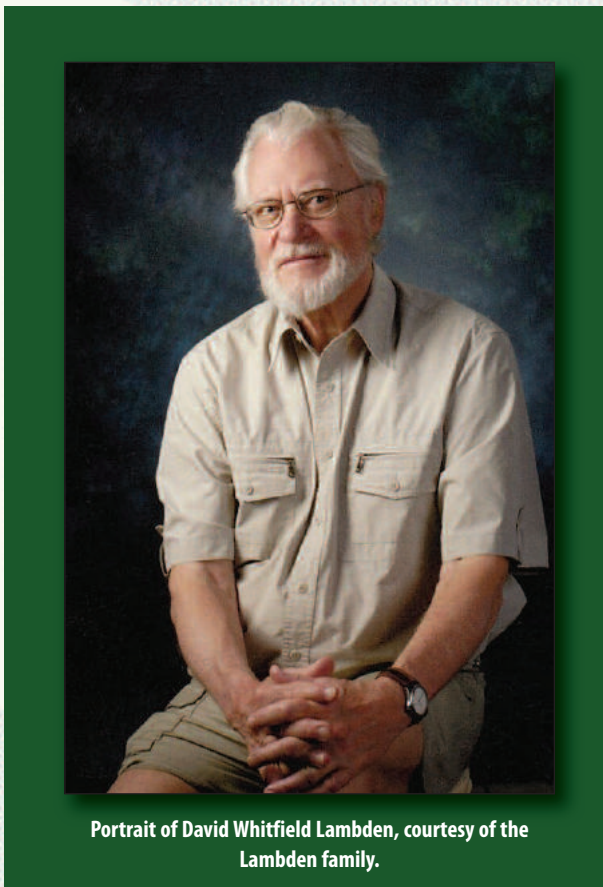
I would not say it sums up all of David's impact on my education/career; but it is certainly something I often thought of to temper my professional activities. It speaks to the fact that boundaries are a matter of law, not survey; until the law elevates or gives validity to the surveyors' work through a lawful adjudication process or a statutory pronouncement. Until that happens, the surveyor provides no more than a professional opinion; always subject to scrutiny of the evidence relied upon.

The quote also speaks, in my view, to the body of case

law and adjudication relating to boundary uncertainties and outright disputes.

It has been my observation over my career, when dealing with boundary litigation matters through a court or through a tribunal process, boundary disputes generate a lot of stomach acid in landowners. - Michael Marlatt – Graduate of Erindale College.

David was inspiring, challenging, generous, and sociable; and the seminal influence on my academic and career-trajectory. He was an unorthodox teacher who insisted on correct grammar ("I am well" vs "I am good"), was appalled by plagiarism, supplied exam questions before the exam, and welcomed Alice in Wonderland quotes. Mostly, however, he was rigorous about boundary principles. I am better for having known David; he was a teacher, supervisor, mentor, patron, critic, foil, adversary and friend - often concurrently. - Dr. Brian Ballantyne. – Graduate of Erindale College.



Portrait of David Whitfield Lambden, courtesy of the Lambden family.

I worked with David during my tenure as Chair of the AOLS Water Boundaries Working Group in the 1980's. His authorship of scholarly papers, for example in Survey Law in Canada, etc., raised the potential for understanding legal boundary issues throughout the AOLS membership. - Tom Bunker – Colleague.

Before I met David Lambden, I didn't have a career; and as for the tattered remains of such, I'm not sure it makes much difference anymore. But one thing I look for in every hand I shake is the closeness and warmth of the hand of David Lambden. - Dr. Peter Knight – Graduate of Erindale College.



A CHAIN OF BOUNDARY EVIDENCE

By Michael Marlatt, O.L.S. (Ret)

One of the most basic and important tenets for the retracement aspect of boundary surveying is the requirement to find original evidence relating to the creation of a non-natural, surveyed parcel boundary or corner in its original location. The courts have long recognized original evidence in its original location as fulfilling the highest order of certainty in the hierarchy of such boundary evidence. Research by surveyors is undertaken to facilitate the best efforts to isolate, locate, and perpetuate evidence that was often not durable, was often established by crude survey methods and equipment, and for which the original records may no longer be extant. After diligent efforts to isolate the expected location are not successful; particularly where there is no secondary occupation evidence, the inevitable questions arise, including: Am I in the wrong place? Have I dug down far enough? Is it likely within 3 or 5 or 10 ft. of where I am looking? There can be no doubt that finding the original, or perpetuated, evidence of a corner or boundary can make a surveyor's day.

The following article outlines the successful chain of documentation and demarcation evidence for the perpetuation of the location of a point of, perhaps, minor historical significance, but of major significance to completing subsequent parcel surveys in the vicinity.

Background

The discovery and successful development of copper deposits in the upper Michigan peninsula followed by the 1846 opening of Upper Canada's first commercially successful copper mine at Bruce Mines, fuelled a drive for mineral exploration along the northern shores of lakes Superior and Huron, leading to surveys and Crown grants of twenty-two large tracts of land along the north shore of Lake Huron specifically for mining purposes. During 1847 and 1848, extensive geological exploration and mapping surveys were completed in that area by the newly-formed Geological Survey of Canada, including the northerly shores and islands of Lake Huron, from the St. Marys River easterly to the French River and Lake Nipissing, and well inland along the principal rivers and their tributaries and lakes draining to the south, to assess the geology and mineral potential for the district.¹

Those exploration, surveying, and mining activities often resulted in conflicts with the locations of some village, hunting, and fishing sites of the Ojibwe inhabitants of those lands, with whom no treaties had been negotiated as was required by the British policy codified in the Royal Proclamation of 7 October 1763 (Marlatt 2004: 281-283). Subsequently, William Benjamin Robinson, MPP, was

appointed by the Executive Council for the Province to negotiate treaties with the Ojibwe First Nations inhabitants of the northerly portions of the upper Great Lakes watersheds. With respect to Lake Huron, Treaty 61, dated 9 September 1850, known as the Robinson-Huron Treaty, was signed to share the lands with the Crown. In addition to the provisions for the payment of annuities, reserve locations for each of the signatory First Nations were excepted from the ceded lands.

As an initial step of the process to organize the ceded territory and to raise funds for the payment of the treaty annuities, Provincial authorities recognized the need to know what lands were available for development or settlement, in addition to the surveyed Mining Locations. It was necessary to survey and demarcate the reserve boundaries.

The Crown engaged Provincial Land Surveyor, (PLS), John Stoughton Dennis, to demarcate the boundaries of the excepted reserve lands and to explore and report on the nature of both the reserves and the adjacent lands. During 1851 and 1852, PLS Dennis and his attending parties completed the field work for the reserves along the shores of lakes Huron and Nipissing, and the French River. The final plans, field notes and reports were transmitted to the Crown Lands Department. (Marlatt 2004: 295-315)

Further geological examination of the area was completed in 1854 and 1855²; however, little information was known about the settlement and agricultural potential for the district; particularly inland from the high, rocky, and sometimes barren shore areas. Under instructions dated 18 June 1855 from the Commissioner of Crown Lands, PLS Albert Pellew Salter, of Chatham, was directed, in addition to other duties, to undertake an exploration and examination of the inland lands lying to the north of the shore of Lake Huron; again, from the St. Marys River at Sault Ste. Marie, easterly to the French River and Lake Nipissing, primarily to locate lands suitable for settlement:

The object contemplated, is the discovery of lands adapted for settlement, and it may be well to state, that assertions have from time to time been made, by persons who have traversed portions of the country adjacent to Lake Huron, that within a moderate distance of its shores, but not generally extending down to them, lands of good quality exist.³

Upon completion of that exploration assignment and the preparation and filing, in early 1856, of PLS Salter's plan, report, and diary, further instructions under the continuing authority of the initial instructions were provided by the Commissioner⁴. Mr. Salter was directed to accurately survey an exploration line from the mouth of the Sturgeon River at

the north shore of Lake Nipissing to a point on the easterly shore of Batchewana Bay of Lake Superior and, at suitable intervals, to complete lateral explorations on either side of the surveyed line, using less precise measurement methods; all to more specifically and accurately determine the extent and location of arable lands to the north of Lake Huron, as well as to determine the magnetic variation along the surveyed lines.

In the final report of his 1855 exploration assignment, PLS Salter had recommended that any townships that might subsequently be surveyed toward the sale of identified arable lands conform to the American six-mile square township system, divided into thirty-six one-mile square sections of 640 acres, further divisible into one-half mile square sections of 160 acres, or quarter sections of land. He further recommended that such townships be laid out on a pre-established and surveyed framework of base lines run along parallels of latitude, and referenced to a surveyed principal meridian. By letter dated 19 May 1856⁵, PLS Salter wrote to the Commissioner and proposed the survey he was about to undertake follow those prior recommendations for the suggested township system by running a base line due west from the Sturgeon River, to be posted every six miles for future township corners along the base line, with a series of lateral offset lines run due north that could also be used subsequently to lay out the sides of such townships. By letter dated 29 May 1856, Commissioner Cauchon revised PLS Salter's instructions for the survey:

I have to acknowledge the receipt of your letter of the 19th instant submitting an amendment to the manner of tracing the exploring line from Lake Nipissing to Lake Superior by drawing lines due west with rectangular offsets due north which may be afterwards available in the subdivision of the territory into townships, and to authorize you to survey accordingly.⁶

Subsequently, PLS Salter, PLS James Johnston, also of Chatham, and their parties travelled to Lake Nipissing and ascended the Sturgeon River, arriving on 20 June 1856, to a point below the first rapids, where the initial post for the survey of the initial base line was planted "... near the North and West banks, of "Sturgeon River" ... Lake Nipissing ...".⁷ At that four inch diameter cedar post PLS Salter organized his parties, checked and adjusted his theodolites, and completed astronomic observations for the determination of the latitude and regulation of his watches by measurement of the altitude of the sun as it transited the meridian through the post. Observation of Polaris at elongation was also completed to provide the bearing for running the base line astronomically west,

and for initial determination of the magnetic variation⁸. (See Figure 1).

From that "Mile Zero" point of commencement post, PLS Salter and several other PLSs under his direction, over 1856 and 1857, completed the Province's first exploration survey by the running and posting of base, meridian, and range lines to more accurately locate and catalogue the nature and character of the land, and to introduce the American system of township survey into the Province. The pattern was, thus, established for the survey of principal meridian lines and appropriately spaced base lines along parallels of latitude to provide a surveyed framework for initial exploration of northern and northwestern Upper Canada/Ontario, and for the subsequent layout of surveyed townships or township outlines, or for the projection of future townships. (Ladell 1993:160, Figure 12.1)

After 1857

Following the subsequent layout of townships in the westerly portion of the Salter survey, in the vicinity of what are now Sault Ste. Marie, Thessalon, and Blind River, it was not until 1880 that PLS Salter's point of commencement post was revisited. By instructions dated 12 May 1880 from the Commissioner of Crown Lands, PLS James K. McLean was directed to survey the Township of Springer in the District of Nipissing into a 640 acre Sectional Township with Single Fronts, (Pattern 3)⁹, and to commence his survey at the point of commencement for PLS Salter's base line at the Sturgeon River.

PLS McLean reported that he found Mr. Salter's initial post: "... still standing and in a good state of preservation"¹⁰; although, the initial two miles of the base line had been burnt over since PLS Salter's presence. Following the completion of astronomic observations on 19 June 1880 at the post, including a determination for the latitude of the post, (in precise agreement with PLS Salter's determination), PLS McLean retraced PLS Salter's base line westerly from the initial post and adopted it as the line between Concession 1 (to the north), and Concession A (to the south), in front of Lots 5 through 14 for the township. To the east of Salter's post, the base line was produced astronomically east to intersect the westerly boundary of First Nation Reserve, No. 10 (Nipissing) to the Robinson-Huron Treaty as the line between Concessions 1 and A across Lots 4 through 1, with Lot 1 taking up the extra width to the reserve. As a result, Salter's point of commencement post also became:

- the SE Corner of Lot 5, Concession 1, Springer;
 - the SW Corner of Lot 4,

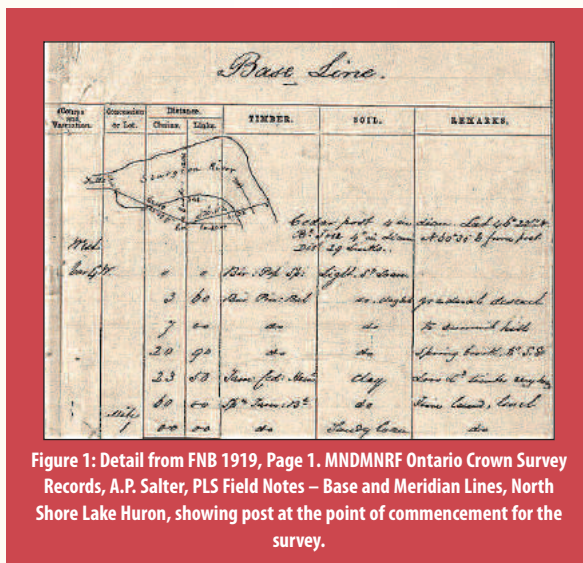


Figure 1: Detail from FNB 1919, Page 1. MNDMNRF Ontario Crown Survey Records, A.P. Salter, PLS Field Notes – Base and Meridian Lines, North Shore Lake Huron, showing post at the point of commencement for the survey.

cont'd on page 10

Concession 1, Springer; (See Figure 2)

- the NW Corner of Lot 4, Concession A, Springer; and
- the NE Corner of Lot 5, Concession A, Springer.

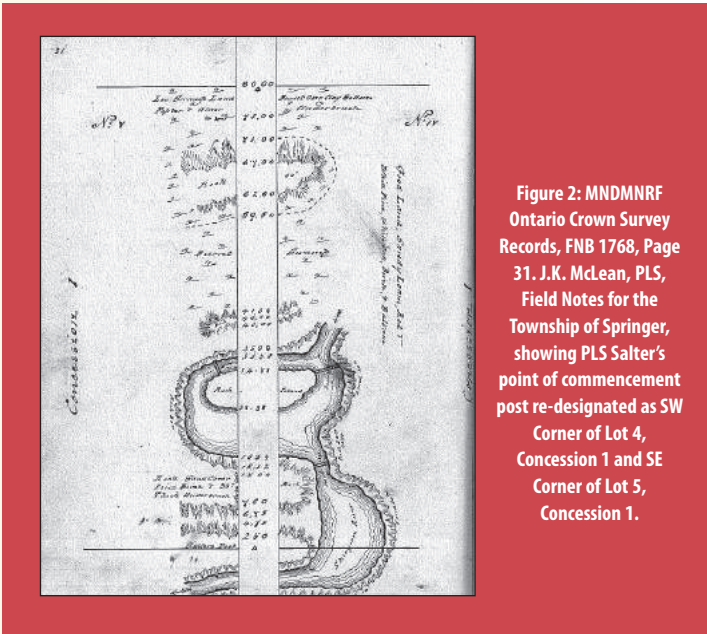


Figure 2: MNDMRF Ontario Crown Survey Records, FNB 1768, Page 31. J.K. McLean, PLS, Field Notes for the Township of Springer, showing PLS Salter's point of commencement post re-designated as SW Corner of Lot 4, Concession 1 and SE Corner of Lot 5, Concession 1.

Portions of Springer Township Lot 4, Concession 1, Lot 4, Concession A, and Lot 5, Concession 1, in the vicinity of the subject corner, were subsequently subdivided as parts of the "Village of Sturgeon Falls"¹¹ by Henry R. McEvoy, Ontario Land Surveyor, (OLS), by Registered Plans 11, 12, and 14, dated 11 December 1884, 15 December 1884, and 1 April 1886, respectively. As a result of those subdivision surveys the post marking the position of Salter's point of commencement post, noted as "Original Post" on all three plans of subdivision, also became:

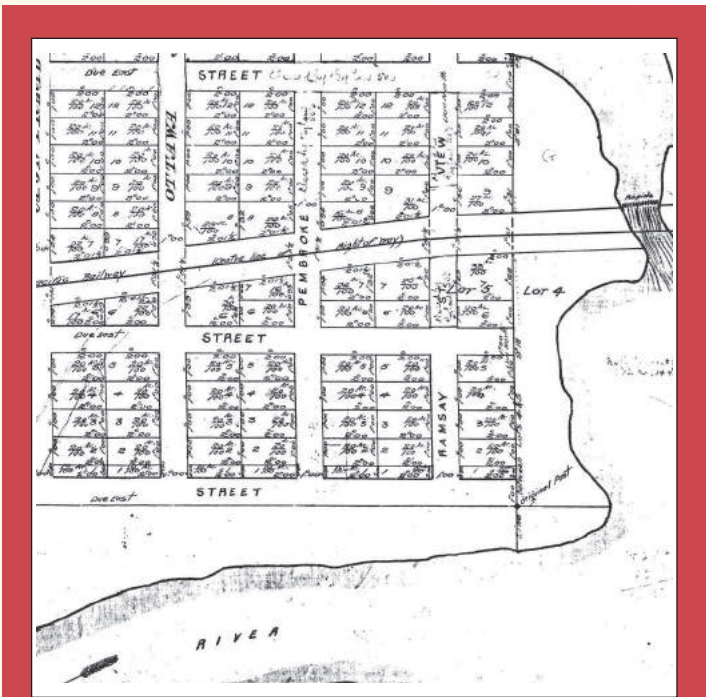


Figure 3: Detail from Registered Plan 14, by H.R. McEvoy, OLS, showing "Original Post" at site of PLS Salter's point of commencement post at SE Corner of River Street, Plan 14 and of Lot 5, Concession 1, Springer.

- the SW Corner of Lot F, Plan 11;
- the NW Corner of Lot 117, Plan 12;
- the SE Corner of River Street, Plan 14; (See Figure 3), and continued to be
- the NE Corner of Lot 5, Concession A, Springer.

Field note records of John H. Shaw, OLS and related reports referenced survey work undertaken by him in Lot 6, Concession 1 of Springer Township in 1900, 1905, 1912, and 1918. While the specific surveys were internal to the said Lot 6, Concession 1, OLS Shaw recorded and referenced the location of original evidence at the southerly and northerly corners of Lots 5 and 6, Concession 1, and at the south-westerly corner of Lot 5, Concession 2, Springer. With respect to the south-easterly corner of Lot 5, Concession 1, being also the site of the renewed Salter's point of commencement post, OLS Shaw located and noted the post in 1900, and again in 1912, at which time he recorded in his field notes: "I planted glass flask under it Nov. 21st 1912"¹². (See Figure 4).

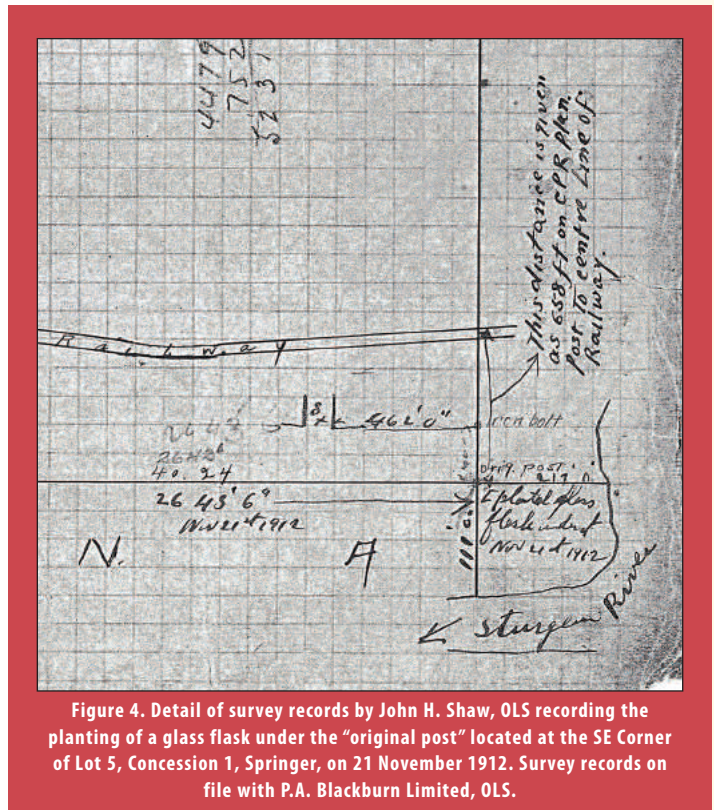


Figure 4. Detail of survey records by John H. Shaw, OLS recording the planting of a glass flask under the "original post" located at the SE Corner of Lot 5, Concession 1, Springer, on 21 November 1912. Survey records on file with P.A. Blackburn Limited, OLS.

Field note records of Edgar L. Moore, OLS record survey work completed in Lot 5, Concession 1 of Springer Township on 11 May 1922. OLS Moore reported finding the "orig & Bottle" at the site of the southeast corner of that lot and recorded local reference ties to the corner¹³. (See Figure 5). Subsequent field note records dated 15 November 1923 record survey work by OLS Moore to retrace the line between Lots 4 and 5, Concession A, southerly from the same corner¹⁴.

Pursuant to acquisition of lands for the right of way of King's Highway No. 17 through the Town of Sturgeon Falls

cont'd on page 12



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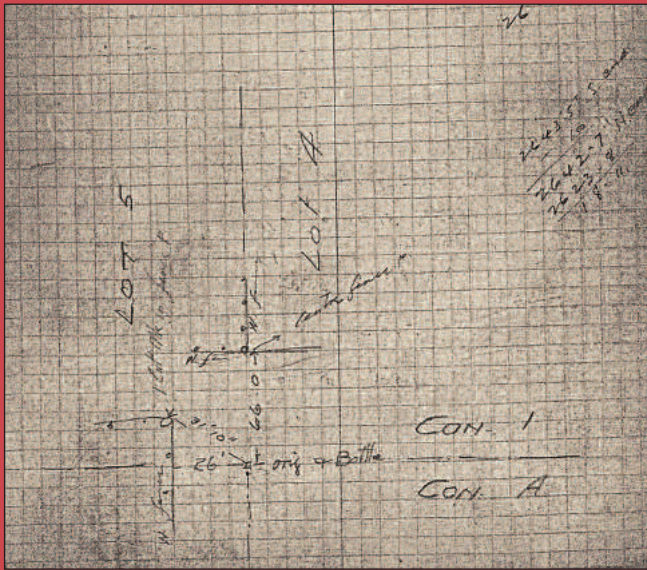


Figure 5. Detail of survey records by E.L. Moore, OLS, Book 62, Page 59, dated 11 May 1922, recording local reference ties to the original post and the bottle buried beneath it by OLS Shaw, located at the SE Corner of Lot 5, Concession 1, Springer. Survey records on file with P.A. Blackburn Limited, OLS.

to the north of the Canadian Pacific Railway right of way; more specifically through lots within Registered Plan 14, as noted above to be a subdivision of the southerly portion of Lot 5, Concession 1, Springer, Charles J.B. Howard, OLS with the, then, Ontario Department of Highways completed field survey work to retrace pertinent cadastral fabric for the subdivision. On field notes dated 29 June 1939¹⁵, OLS Howard recorded that he set a Standard Iron Bar (SIB), “Replacing O.P. and Bottle”, (“O.P.” being an abbreviation for “Original Post”), at the site of the post and the bottle set during OLS Shaw’s 1912 renewal of the original post set by

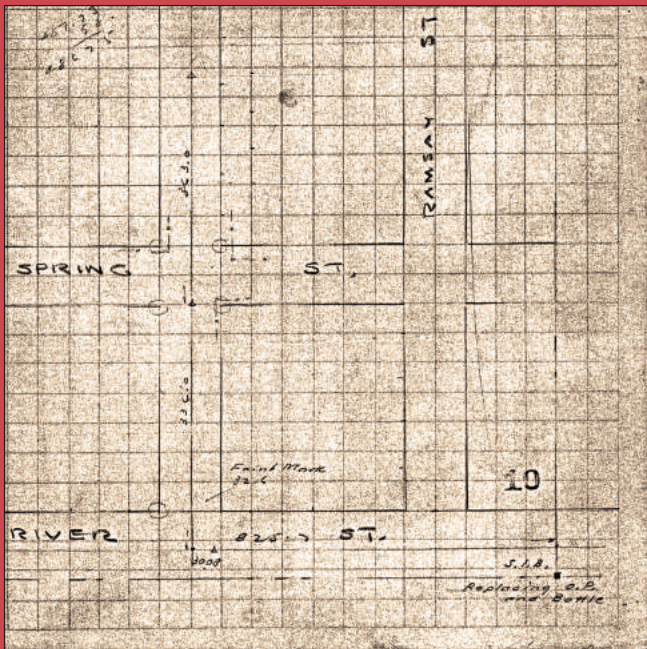


Figure 6. Detail of survey records by C.J.B. Howard, OLS, dated 29 June 1922, associated with MTO File P-2465-2, Page 10, recording replacement of the original post and buried bottle, located at the SE Corner of Lot 5, Concession 1, Springer, by a SIB.

OLS McEvoy in 1884 at the south-westerly corner of Lot F, Registered Plan 11; being a renewal of the original post for the Township of Springer fabric as established by PLS McLean’s 1880 renewal of PLS Salter’s Mile Zero point of commencement post, set in June 1856 for the point of commencement of his base, meridian, and range lines survey. (See Figure 6).

The results of OLS Howard’s survey were represented on a Land Plan deposited in the Land Registry Office for the District of Nipissing as Instrument SF5198, (MTO File P-2465-2).

Subsequently, several surveys have been completed within the fabric surrounding the SIB set by OLS Howard in 1939, relying upon that monument to demarcate the original monument in its original location.



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- Marlatt, Michael E. 2004. *The calamity of the initial reserve surveys under the Robinson Treaties*.
- Papers of the 35th Algonquian Conference, ed. by H.C. Wolfart. Winnipeg: University of Manitoba.

ABBREVIATIONS

- FNB – Field Note Book
- MNDMNRF – Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry
- Vic. – Queen Victoria. X Vic. denotes the Xth year of the reign of Queen Victoria, within which the referenced item was published or otherwise made official.

ENDNOTES

- ¹ Appendix G to Vol. 8, Journals of the Legislative Assembly of the Province of Canada, (JLA), 12 Vic., 1849; and Appendix V to Vol. 9, JLA, 14 Vic., 1850: Reports of William Logan and Alexander Murray on their geological examinations and mapping of the north shore of Lake Huron during 1847 and 1848.
- ² Appendix 52 to Vol. 15, JLA, 20 Vic., 1857: Report of Progress for the Years 1853-54-55-56, Alexander Murray to W.E. Logan.
- ³ MNDMNRF Ontario Crown Survey Records, Instructions to Land Surveyors, Vol. 5, Pages 254-256. Letter dated 18 June 1855, Cauchon to Salter.
- ⁴ MNDMNRF Ontario Crown Survey Records, Instructions to Land Surveyors, Vol. 6, pp. 232-234. Letter dated 15 February 1856, Cauchon to Salter.
- ⁵ Archives of Ontario, Series RG 1-5-0-1, register of letters received by the Surveying Department relating to surveys, Reel MS7547, p. 161, No. 11.
- ⁶ MNDMNRF Ontario Crown Survey Records, Instructions to Land Surveyors, Vol. 5, page 265. Letter dated 29 May 1856, Cauchon to Salter.
- ⁷ MNDMNRF Ontario Crown Survey Records, FNB 1919, two pages prior to page numbered 1, Field Notes – Base and Meridian Lines, North Shore Lake Huron.
- ⁸ Appendix 25(R) to Volume 15, JLA, 20 Vic., 1857: Report dated 22 January 1857 of Progress of Survey of Base Line North Shore of Lake Huron, Salter to Cauchon, Page 1.
- ⁹ Pattern 3 is described and illustrated in R.R.O. 1990, Reg. 1029: Survey Methods, Method 118, under the *Surveys Act*, R.S.O. 1990, c. S.30, s. 37(1).
- ¹⁰ MNDMNRF Ontario Crown Survey Records, FNB 1768, Field Notes and Report for survey of Springer Township by J.K. McLean, PLS, (sworn 11 November 1880).
- ¹¹ The unincorporated village of Sturgeon Falls was incorporated as the Town of Sturgeon Falls by S.O. 1895, c. 86, *An Act to Incorporate the Town of Sturgeon Falls*, assented to 16 April 1895.
- ¹² Records of survey for John H. Shaw, OLS on file with the firm of P.A. Blackburn Limited, OLS. Mr. Shaw, originally from Pembroke, was quite diligent in the practice of referencing and renewing original survey evidence, frequently by placing glass bottles, electric insulators, or broken crockery, (delf), among other items of more enduring nature than the original wood evidence, beneath original or renewed corners.
- ¹³ Records of survey for E.L. Moore, OLS, Book 62, page 59, on file with the firm of P.A. Blackburn Limited, OLS. OLS Moore was as diligent as OLS Shaw in renewing and perpetuating original evidence.
- ¹⁴ *Ibid.* Book 62, page 100.
- ¹⁵ Ministry of Transportation, Ontario, Survey Records on file with Northeast Regional Office, Engineering Branch, Geomatics Section, survey by C.J.B. Howard, OLS, Field notes associated with MTO File P-2465-2, Page 10, dated 29 June 1939.

NEWS FROM 1043

Changes to the Register

MEMBERS DECEASED

Marc P. Payette	1778	Nov. 1, 2021
Lawrence G. Woods	1135	Nov. 19, 2021

RETIREMENT

Rob Martin	1745	Nov. 6, 2021
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Surveyors in Transit

James Silburn is now with the City of Mississauga.

Waldemar Golinski is now the CofA Holder for **Land Survey Group Inc.** in Etobicoke and **Satesh Lakkan** is now the Managing OLS. **Peter Homer** is no longer with this company.

Pat Woolley is no longer with **MTE Ontario Land Surveyors Ltd.**

Jeff Pengelly is now with **Tulloch Geomatics Inc.** in Toronto.

Amir Keshavarz is now with J.D. Barnes Limited in Markham.

Prakhar Shrivastava is now with the **Ministry of Northern Development, Mines, Natural Resources and Forestry - Office of the Surveyor General.**

Phillip Robbins is now with **Rodney Geyer, Ontario Land Surveyor Inc.**

Gavin Tyler is no longer with **Coe, Fisher, Cameron Surveying (A Division of J.D. Barnes Limited).**

JBF Surveyors has moved their office to 3177 Lakefield Road, Selwyn, ON, K9J 6X5.

Surveyors On Site has moved their New Liskeard office to 50 Whitewood Avenue, PO Box 1599, New Liskeard, ON, P0J 1P0.

Surveyors On Site has moved its Windsor office to 3560 Walker Road, Windsor, ON, N8W 3S4.

Rugged Geomatics Inc. has moved its office to Unit 3, 619 Ninth Street North, Kenora, ON, P9N 2S9.

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Quirky Stuff about Accretion

By Dr. Brian Ballantyne, O.L.S. (Hon), A.L.S. (Hon)

“I say ‘water’s edge’ loosely.”¹

Introduction: Setting the tone

David Lambden’s take on the doctrine of accretion evolved slowly, gradually, and imperceptibly. In 1985, in *Boundaries and surveys*,² he devoted only one paragraph to accretion.³ Such reticence was uncharacteristic. By 1989, he devoted three pages to the “doctrine of accretion” in *Survey Law in Canada*,⁴ although a closer look reveals that he said nothing about accretion in his own words.⁵ It wasn’t until 1996, in *Legal aspects of surveying water boundaries*,⁶ that David devoted an entire chapter to accretion (and to its corollary – erosion).

David’s dwindling reticence illustrates that the doctrine of accretion is as capacious as an elephant, and just as difficult to get one’s hands on.⁷ It has been described as “one of the baffling riddles of property law.”⁸ This article parses the riddle, starting with the Meander River in the 6th century BC, dabbling in 13th century CE Britain, continuing with 21st century court decisions from hither and yon, and finishing with a lament for change.

Taking the sea from the navigator

Miletus was a prominent city on the south-east coast of Asia Minor, one of 12 city-states in the Ionian League in the first millennium BC. It was extraordinarily influential in commerce, science, and philosophy, having founded 90 colonies in the eastern Mediterranean Sea, the Aegean Sea, and the Black Sea. It was located on a large bay, fed by the Meander River⁹ (see Figure 1¹⁰). Sadly, the Meander River (owing to its sinuous progress) discharged much alluvium into the bay, with deleterious effects.

From the Archaic Period to late Antiquity, “the river shat the great port unto death”¹¹ – deposition from the Meander River rendered Miletus landlocked. Miletus was aware of what was happening, and from the 5th century BC it strove to retain its waterfront and its port status, by “progressively relocating to the alluvial plain.”¹² Alas, the attempt to shift westerly with the accretion was fruitless. The Aegean was retreating at the rate of 6 m per year; by the 2nd century BC the approaches to Miletus were full of shoals and shallows:



Figure 1 - Miletus was gradually landlocked owing to Meander River deposition.

“The Meander River had taken the sea from the navigator and given it to the husband-man to be divided into fields.”¹³

The silver lining to this “inconvenient alchemy”¹⁴

Thales lived from about 620 to 550 BC in Miletus. He is widely regarded as the first scientist – he explained the world by observing natural phenomena; deductive reasoning replaced myths and stories. It is likely that the effects of the Meander River played a seminal role in shaping his worldview to inquire into causes and effects, as he saw the Aegean Sea gradually retreating. His reliance on observation (as opposed to using Delphic proclamations or the parsing of chicken entrails) directly inspired a raft of scientists and philosophers, including Herodotus (history), Hippocrates (medicine), Heraclitus (logic), Pythagoras (mathematics), and Hippodamus (urban planning).

Thales’ “absolute faith in the value of observation; an unarguable starting point in the pursuit of reason” was motivated by the very accretion that was destroying Miletus, “whereby water appeared to metamorphose into earth itself.”¹⁵ That is, every year the muddy waters of the Meander River seemed to mix with the clear waters of the Aegean Sea to create dry land. These observations coloured his assessment of life forces; he theorized that water was the fundamental element from which all of life sprung. Thus, accretion was both midwife of reason (encouraging critical observation) and cautionary tale (beware of retreating coastlines).

Fast forward to 13th century Britain

The doctrine of accretion did not arise to ensure that riparian parcels continued to enjoy access to the watercourse.¹⁶ Rather, the doctrine evolved to allow riparian landowners to use new dry land, land that appeared because of deposition or lower water levels.¹⁷ Back in the day, accreted land was used to graze cattle and to harvest reeds and plover eggs,¹⁸ and who else could use such land?¹⁹ Moreover, the doctrine did not arise owing to the gradual nature of the change, or to ignorance of the original bounds, or to the trifling areas in question, or to mutuality/reciprocity (i.e. if parcel loses through erosion then it should gain through accretion), but because it became the norm for seashore owners to treat accretions as their own, and because doing so did not intrude on any other established uses.

Surveying/registering are superfluous to using accretion

Accretion occurs when the watercourse gradually recedes (moves away from the upland parcel) either through the retreat of the water or the deposition of alluvium (see Figure

2). The riparian owner – by operation of law – automatically has title to accreted land, as affirmed by two recent decisions. If the parcel is transferred, then title to any accreted land is transferred with it.²⁰ To be clear, “it is well established at common law that accreted lands do actually attach to and increment each riparian property’s shoreline.”²¹ No special dispensation is needed from the Crown, the municipality, the courts, or neighbours to use the accreted land.



Figure 2 - Original riparian bound on the Columbia River (BC); note the significant accretion.

It’s ironic

Recall that allocating accretion usually requires that side boundaries bend.²² The bends are the result of riverbanks and lakeshores being sinuous, and of parcel boundaries seldom running perpendicular to such watercourses (see Figure 3). Despite these two realities of fluvial geomorphology and subdivision geometry, riparian landowners are wont to question how accretion is allocated. After *Andriet v Strathcona County* (2008),²³ a riparian landowner complained that:

This decision ... has taken away our lifestyle, which is what riparian law was originally put in place for us to keep. It also means the majority of us will have our land jutting out at an angle instead of going straight out to the lake.²⁴

There are two rejoinders – ironic and historic. Ironically, the riparian landowner now has a larger parcel than what was purchased. Historically, access was never a thing; it was all about using the new land.

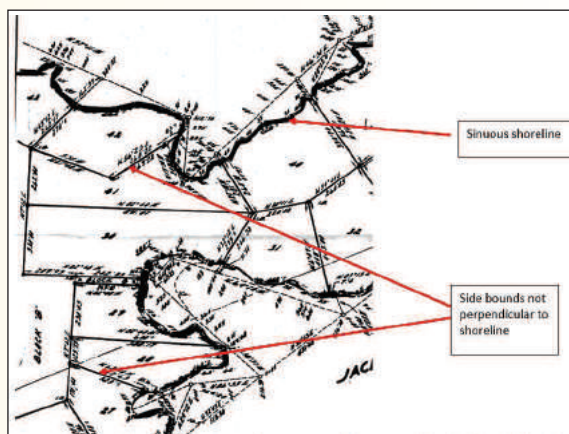


Figure 3 - Typical subdivision of riparian parcels on an Ontario lake – sinuous shoreline & angled bounds.

Many rivers simply refuse to cooperate

Many rivers in Canada are two-channel systems, meaning that flow is gradually transferred from one channel to another.²⁵ The original bed does not shift, nor is a meandering river suddenly straightened. Rather, two channels are active for some time, before the original channel dries up. Thus, the question is: Does the gradual transfer of water from channel 1 to channel 2 constitute accretion, avulsion, or something else?

This is particularly thorny because flow transfer and channel migration is a non-continuous process throughout the year. Summer and autumn flows are too low to transfer channels; only spring freshets transfer channels. So, a conundrum: Channel shifting is not imperceptible (it occurs as a series of perceptible events) so it does not meet the definition of accretion. However, channel shifting is not sudden (it takes place gradually in the long run through a series of discrete events) so it does not meet the definition of avulsion.²⁶

On the one hand, accretion need not be apportioned equitably

There have been two recent disputes about extending Tiny Township road allowances to Georgian Bay, with different results owing to different facts. In *Dale v Tiny Township* (2015), accretion did not need to be “distributed on an equitable basis.”²⁷ To have apportioned accretion equitably would have meant bends in the road allowances. Rather, equity was overridden by the *Surveys Act*, such that the road allowances retained their width (1 ch) and their direction (straight). The facts were that the road allowances had been surveyed in the original survey to the water’s edge and then over the frozen bay, an area of subsequent accretion.

On the other hand, accretion must be apportioned equitably

In *Duarte v Ontario* (2018), there was much to-and-fro as to whether a concession road and a side road should be extended over accreted land. The court held that the *Surveys Act*:

Has not abrogated or displaced the much older common law principle ... that accreted land should be equitably allocated in order to preserve each owner’s access to water.²⁸

However, it was a hollow victory for fans of equity because the facts were that the water’s edge was in the same location as when the township was surveyed.²⁹ Thus, there was no accretion and nothing to apportion, and the roads ran straight to the lake.

A pox on mutuality; it’s a sham

It is not true that parcels gain through accretion only because they risk losing through erosion. The notion of mutuality or reciprocity does not exist for riparian parcels, because parcels can be protected from the ravages of erosion. Or can they? Although there is a riparian right to “protect one’s property from erosion caused by inroads of

cont’d on page 16

the sea,³⁰ such a right is not absolute. Municipalities can regulate structures close to a riparian boundary, to prevent a riparian landowner from preventing erosion. *Fonseca v Gabriola Island* (2021) held that an existing embankment wall was prohibited by a municipal bylaw provision that required all structures on Mudge Island (in British Columbia) to be located at least 30 m from and 1.5 m above the riparian boundary.³¹

That’s a lot of footnotes

Let’s stick with erosion. Twelve Mile Coulee (in Alberta) flowed south-east through the NE ¼. In 1968, Alberta granted the owner of the NE ¼ a licence to divert water from the creek to build a reservoir 16.9 ac in area (see Figure 4). Despite the reservoir coming into being suddenly, deliberately, and artificially, *Erik v McDonald* (2019) held that the bed of the reservoir is provincial Crown land, and that the five surrounding parcels (subdivided from the NE ¼) are bounded by the edge of the reservoir.³²

That is, erosion – the corollary to accretion – need not be gradual. The judgment, that “the Crown has the title to the beds and shores of land wherever water is present over an extended period of time ... including water from those sources that has been diverted by human acts,” should be of interest to Ontario surveyors. First, Court of Appeal decisions from other jurisdictions are persuasive in Ontario in similar fact situations. Second, the judgment used 119 footnotes.

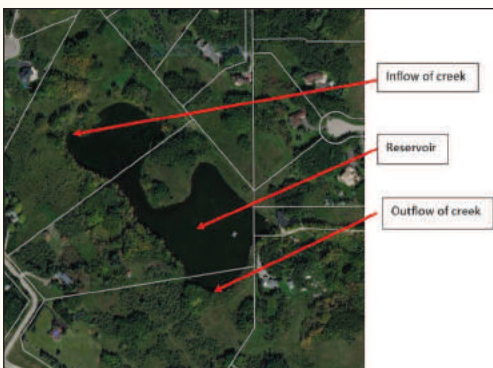


Figure 4 – Pedersen reservoir (AB) created from narrow creek now encroaches onto five parcels.

Throwing shade

The doctrine of accretion is being criticized as incompatible with land titles systems. There are cries “that in light of conflicts and issues arising from the common law doctrine, it may be time for legislative reform,”³³ because “accretion, with its reliance on changing water boundaries, sits uneasily within the certainty and fixed nature of the survey grid.”³⁴ By survey grid, the critic meant the township system – whether subdivided into concessions and lots as in Ontario or into sections and quarter-sections as in the prairie provinces. Thus, it was asserted that:

The doctrine of accretion, however, may render natural boundaries set out in land titles inaccurate, disturbing, if not destroying, the simplicity and

certainty of the Torrens system built upon the [survey] system.³⁵

The criticism appears to conflate the guaranty of title (real) with a guaranty of the location of riparian boundaries (not real) and ignores two things. First, eliminating accretion does not mean that there will be fewer conflicts. For example, in 1966, Saskatchewan legislation eliminated accretion. All “accrued land” vested in the provincial Crown, although such accretion was often sold to riparian landowners for a nominal fee.³⁶ The legislation was recently repealed, and the province is now providing accretion guidance to administrators, surveyors, and riparian landowners. Second, legislating away accretion discounts how watercourses work. Rivers and lakes will continue to encroach onto and retreat from parcels; sometimes gradually and sometimes suddenly.

Doctrinal change

Although Canadian critics³⁷ have not suggested how legislation might change the doctrine of accretion, American observers are more forthcoming. They have suggested that the criterion of “slow, gradual and imperceptible” be abandoned, and that the upland title should follow a moving water boundary regardless of “the rate, perceptibility, or suddenness of the movement.”³⁸ The recommendation is subject to three general exceptions, where:

- The watercourse shifts to a wholly new channel, as by a meandering river cutting across the neck and creating an oxbow.
- The shift is caused deliberately by the riparian landowner.
- The shift is transient as for the 2 m rise and fall of Lake Huron. So, a waiting period would be set before accretion is claimed.

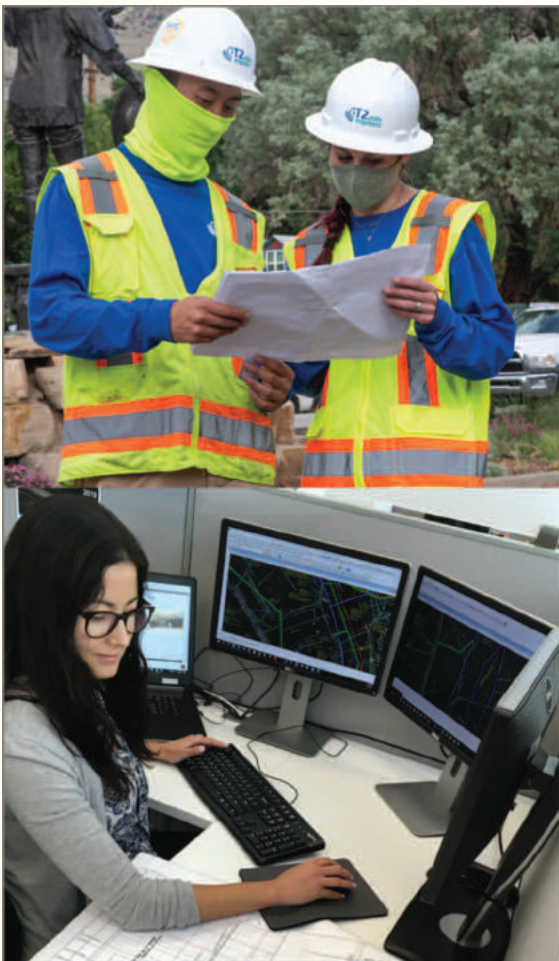
Conclusion: Gradualness?

The theme that pervades these quirks is that the rate of change is becoming irrelevant to accretion, given that gradually/suddenly means nothing to watercourses. Gradualness was irrelevant to the demise of Miletus and to the use of accreted land in 13th century Britain; it is now irrelevant to the behaviour of two-channel rivers, to the creation of reservoirs, and to legislative reform. Let’s give the last word to David Lambden, who observed that “nature is not only capricious – nature is irreverent.”³⁹



¹ David Lambden. Telephone chat. December 20, 2011.
² Relied upon three times by the courts: *Robo Management v Byrne* (1989); *Bowers v Bowers* (2002); *Black v Norris* (2012).
³ Even then he ignored the seminal case on accretion: *Clarke v Canada*, 1929 CanLII 38 (SCC).
⁴ Relied upon twice by the courts: *Westwood Plateau WSP Construction* (1997); *Brydon v Thom* (2014).
⁵ He merely quoted Justice Dickson’s dissent in *Chuckyry v Manitoba*, 1972 CanLII 962 (MB CA).
⁶ Relied upon twice by the courts: *Tiny Township v Battaglia* (2013); *Becker v Walgate* (2019).

- ⁷ Paraphrasing (and expurgating) *Blackadder*. Season 2 – Beer episode. 1986.
- ⁸ Sax. The accretion/avulsion puzzle. 23 *Tulane Environmental Law Journal* 2009. p306.
- ⁹ Which gives us the verb: to meander.
- ¹⁰ Miletus. Wikipedia. (Eric Gaba – [Wikimedia Commons user: Sting](#))
- ¹¹ Over 1,500 years: Seal. *Meander: East to west along a Turkish river*. Vintage Books. p340. 2013.
- ¹² Seal. *Meander: East to west along a Turkish river*. Vintage Books. p339. 2013.
- ¹³ Himerius the Sophist. Translated by Chandler. *Travels in Asia Minor*. 1776. Recounted in Seal. *Meander: East to west along a Turkish river*. Vintage Books. 2013.
- ¹⁴ Seal. *Meander: East to west along a Turkish river*. Vintage Books. p343. 2013.
- ¹⁵ Seal. *Meander: East to west along a Turkish river*. Vintage Books. p342. 2013.
- ¹⁶ As acknowledged in: *Municipality of Queens County v Cooper*, 1946 SCC 584.
- ¹⁷ Sax. The accretion/avulsion puzzle. 23 *Tulane Environmental Law Journal* 2009. pp305-367.
- ¹⁸ Sax. The accretion/avulsion puzzle. 23 *Tulane Environmental Law Journal* 2009. pp320 & 325.
- ¹⁹ *AGBC v Neilson*, 1956 SCC 819.
- ²⁰ *0640453 BC Ltd v Tristar Communities Ltd*, 2018 BCCA 460, at para 40.
- ²¹ *Duarte v Ontario*, 2018 ONSC 2612, at para 95.
- ²² *Paul v Bates*, (1934) 48 BCR 473; *Re: Brew Island*, [1977] 3 WWR 81.
- ²³ *Andriet v Strathcona County*, 2008 ABCA 27.
- ²⁴ Kwasniak. Accretion, Torrens & law reform. *J of Environmental Law & Practice*. fn 109. May 2013.
- ²⁵ Campbell & Osborn. River channel movement and boundary law in Alberta. *GeoCanada 2010*. 3pp.
- ²⁶ Campbell. *Wandering gravel-bed rivers in southern Alberta*. MSc thesis. University of Calgary. 2012.
- ²⁷ *Dale v Tiny Township*, 2015 ONSC 7340, at para 75.
- ²⁸ *Duarte v Ontario*, 2018 ONSC 2612, at para 105.
- ²⁹ Ontario Office of the Surveyor General. *Reasons for decision – Case No. 884 Continued*. April 7, 2020.
- ³⁰ *Fonseca v Gabriola Island Local Trust Committee*, 2021 BCCA 27, at para 25.
- ³¹ *Fonseca v Gabriola Island Local Trust Committee*, 2021 BCCA 27, at para 31, 57 & 64.
- ³² *Erik v McDonald*, 2019 ABCA 217, at para 13.
- ³³ Kwasniak. Accretion, Torrens & law reform. *J of Environmental Law & Practice*. p168. May 2013.
- ³⁴ Kwasniak. Court of Appeal conjures a creative accretion approach. *ABlawg.ca*. March 26, 2008.
- ³⁵ Kwasniak. Court of Appeal conjures a creative accretion approach. *ABlawg.ca*. March 26, 2008.
- ³⁶ Not to be confused with the “nominal service charge” levied by the mystery man. Zappa. *Cosmik Debris. Apostrophe*. 1974.
- ³⁷ Kwasniak. Accretion, Torrens & law reform. *J of Environmental Law & Practice*. p168. May 2013. The article did “not attempt to offer a legislative solution.”
- ³⁸ Sax. The accretion/avulsion puzzle. 23 *Tulane Environmental Law Journal* 2009. pp353-354.
- ³⁹ David Lambden. Email critique. CIG talk – Toronto. September 20, 2012.



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Flooded Lands. Still a Question of Boundaries?

By Dr. Peter Knight, Certified Hydrographic Surveyor (CPHS1), Member of the New Zealand Institute of Surveyors

Abstract

Where is the boundary of title to a flooded parcel of land located? The cases of Herold Estate v Attorney General 2021 and the case of Erik v McDonald 2019 contain judicial comment on the subject. The cases are considered in the context of Knight's 1994 Master thesis: Flooded Lands. A Question of Boundaries? Knight, under the supervision of David Lambden, had concluded that the Canadian law supports a flooded boundary remaining in its pre-flooded position. Has the law changed as a result of the newer cases?

Introduction

When I was a student at Erindale College in the early 90s, Professor David Lambden, my then supervisor, suggested that I might look at the question of the location of flooded boundaries. David would have suggested this for two reasons. The first is that he was involved around this time in the case of *Gall v Rogers (1993)*¹—a case involving a flooded boundary. The second is that there was then, and perhaps still is question as to where Canadian law stands on the subject.² My masters research was published in *The Ontario Land Surveyor*³ and in 1994, I was awarded a Master's degree by the University of Toronto.⁴ The thesis developed the argument that a flooded boundary remains in its pre-flooded position. It reached this conclusion from an examination of the 'natural doctrines'⁵, from the principles that emerge from the natural doctrines; from an investigation of lengthy submergence, and rights of flowage; and finally, by reviewing American and Canadian case law. In the twenty-seven years since I wrote my thesis on flooded boundaries, there has been a small number of new Canadian cases relevant to the subject. These are: *Herold Estate v. Canada (Attorney General) 2021*⁶; *Van Diepen v Thomson (2020)*⁷, *Erik v McDonald (2019)*⁸; and *Gall v Rogers (1993)*⁹. Of these *Gall v Rogers* and *Van Diepen v Thomson* support the contention that flooded boundaries remain in their pre-flooded position. Because my thesis is that a flooded boundary remains in its pre-flooded position, it is the aspects of a contrary argument found in *Herold*, and *Erik v McDonald* that I wish to address in this paper.

Herold Estate v. Canada (Attorney General) 2021

Herold Estate v. Canada (Attorney General) 2021 concerned land adjoining the Trent-Severn Waterway about a kilometre southwest of Lock 27 at Young's Point, Ontario.

The shoreline in question was flooded to various levels and for a variety of purposes in the 19th Century, and the land in question, formerly part of the mainland, had become an island, by the time the land was patented in 1868. The trial judge (the application judge—Justice C.M. Smith), relying on a survey of 1818, found that the original (i.e., prior to flooding) shoreline was the boundary of the lands in question. However, the appeal judge (B. Zarnett J.A.) found that the application judge erred in failing to give the required importance to the intent of the parties to the 1868 patent. The appeal judge found that in 1868 the intent of the parties was to convey the lands bordered by the then shoreline (i.e., the flooded shoreline).¹⁰

The appeal judge finds the application judge's decision on the location of the boundary of the flooded land (i.e., the pre-flooded shoreline) to be an error in law.¹¹ The appeal judge invokes a 'Flooding Principle'¹² (first referred to by the application judge) whereby lengthy and gradual changes in water levels do not result in a change of boundary position. The appeal judge charges that while the application judge has allowed that a flooded boundary can change position, this was an error because in the application judge's own words—following an assessment of facts—the process was, 'lengthy and gradual'.¹³ Does the finding of an error in law amount to a legal decision on the location of the boundary? It is beyond the ability of this writer to answer that question. It is possible, however, to examine the appeal judge's reliance on a 'Flooding Principle' in light of existing research.

When suggesting a 'Flooding Principle' in *Herold*, the application judge must have had in mind the 'natural doctrines'.¹⁴ The natural doctrines are described in detail in the Natural Resources Canada (NRCAN) publication on water boundaries to which both the application judge and appeal judge referred.¹⁵ But while these natural doctrines might be very influential in a consideration of flooded boundaries, and might correctly be called principles, they do not, in themselves, amount to a 'Flooding Principle'. Indeed 'flooding principle' is not a term I have ever come across before. The NRCAN publication on water boundaries, which was cited as an authority by the appeal judge in *Herold* speaks to flooded boundaries but does not use the term 'flooding principle'. The application judge in *Herold* possibly inferred a principle which took on a life of its own after receiving the appellation. The appeal judge appears to

accept the ‘Flooding Principle’, and then discovers a contradiction between the rapid movement of the water acting on the boundary required by the so-called principle, and a statement by the application judge that the changes to the water levels, and hence the location of the boundary in question, were a lengthy and gradual process.

The appeal judge stated that, ‘... the application judge ... did not make any factual findings that the change in water levels was non-gradual. He found the opposite – that the property was altered through a “lengthy and gradual process”’.¹⁶ The appeal judge is rightly mindful of the factual situation, but focuses entirely on the rapidity of movement of the water levels. The precedent, however, for applying the principles that come from the natural doctrines requires a broader scope of investigation, “... in proposing to apply the juristic rules of a distant time or country to the conditions of a particular place at the present day, regard must be had to the physical conditions to which the rule is to be adapted”.¹⁷ And, “The rule that accretions must be gradual, slow and imperceptible only defines the test relative to the physical conditions of the place to which it is applied.”¹⁸ The physical conditions of the place surely have wider scope than rapidity of the rise in level of the water. In the case of *Herold* they would include the number of dams built together with their timeframes, the size of the water-course affected, and perhaps cultural settlement.

Gall v Rogers found that a flooded boundary remains in its pre-flooded position. The case contains a description of the flooding of the Muskoka River, which took place over at least a 50-year period, and is not unlike the slow and gradual process, so named by the application judge in *Herold*:

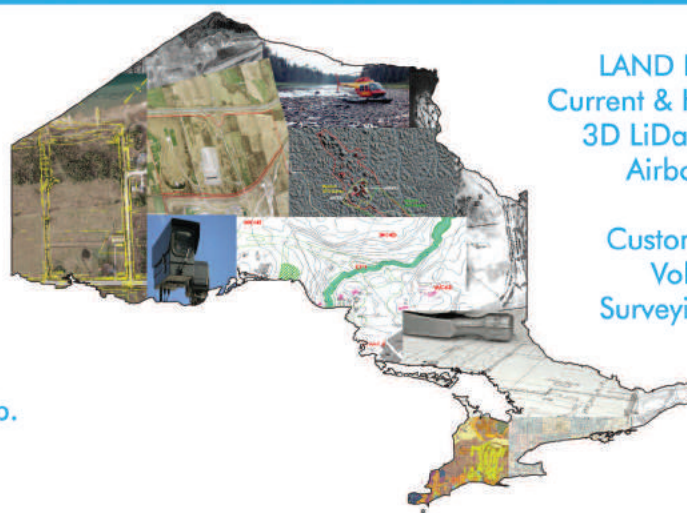
*“As stated above, in the latter part of the 19th century, the logging operations became the main economic undertaking in the area. For several reasons, the water level was raised so that the booms of logs could be more expeditiously delivered to their point of destination. As a result, dams were erected in the Muskoka watershed and in particular at Port Sydney, where the north branch of the Muskoka River continues to Bracebridge and Lake Muskoka. These dams were enlarged and reconstructed from time to time into the 1940s and, when logging ceased, hydro-electric facilities had been established. Boathouses had been erected and it was deemed advisable to keep the water level as it had been.”*¹⁹

The appeal judge in *Herold* relies on the application of a principle—slow and gradual changes do not result in boundary changes—that strictly applies to accretion and erosion, relocation and avulsion, and not to flooding. Furthermore, the appeal judge was apparently not invited to consider the important qualification of the ‘slow and gradual’ principle made by Lord Chelmsford in *Attorney-General v. Chambers (1859)*, “Of course, an exception must

cont’d on page 20

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always be made of cases when the operations upon the party's own land are not only calculated [as flooding surely is, P.K.], but can be shown to have been intended to produce this gradual acquisition of the seashore, however difficult such proof of intention may be."²⁰

Erik v McDonald 2019

Erik v McDonald is a case from the Court of Appeal of Alberta that concerns the ownership of the bed of a small reservoir created by the damming of a natural stream flowing through a natural ravine. The appellants and respondents are neighbours in the case, and the appellants seek to overturn the judgement of the lower court in which their right to build a fence across the reservoir on lands that had been flooded, was denied.

Erik v McDonald demonstrates several of the issues that must be considered in dealing with flooded boundaries. Relevant legislation has particular bearing on this case. Title to the beds and shores of all permanent and naturally occurring bodies of water in Alberta are vested in the Province.²¹ The appeal judgement, supporting the decision at the trial, found that the flooding of the reservoir pushed back the boundaries of the adjoining owners.

*Since the statute preserves the status of a naturally occurring body of water despite human intervention, [in this case the building of a dam that flooded the boundary, P.K.] the result is that the construction of the Pedersen dam effectively altered the boundary of the appellant's property.*²²

Erik v McDonald would thus suggest that flooding can indeed result in a change in property boundaries. Yet study of the case reveals that much of the argument relates to the enjoyment of the reservoir for recreational purposes including the navigation by sailboats and canoes. The case arose because the fence built by the appellants prevented their neighbours from the use of the waters of the reservoir; waters which are vested in the Province by statute.²³ In Ontario, the *Beds of Navigable Waters Act*²⁴ has a similar import to the Alberta legislation, in that it secures for the public the important right of the use of the surface of the water for navigation.²⁵ In my thesis I make the following statements:

"... navigability is sometimes spoken of as though it confers title to the state, or Crown; in Ontario the Beds of Navigable Waters Act states explicitly that this right is with the Crown.

One result of the conflict between private riparian and public rights to navigable waters has been the raising of questions of title. Somehow the public right of navigation transforms itself to a public title to the soil of the beds of navigable waters. Rather than limit the issue to one of qualifying or restricting title of the riparian owner and merely recognizing a public right of navigation, simplified summaries of cases lead one to believe that these cases are dealing with a conflict between two absolute titles. ...

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*... many of the cases concerning flooded lands [here I am discussing American cases, P.K.] are cases concerning relative rights, and are not true boundary cases for which a determination of the boundary is essential. It is the perhaps unfortunate position of the surveyor to be forced to make the decision that the courts have avoided.*²⁶

And in a relevant personal communication with David Lambden on the subject, he had the following to say,

*If the surveyor represents by his survey and a plan that a boundary is in a certain position because he has decided the waters are navigable and that the bed is property of the state—the Crown in Ontario—a grave risk of error and consequent liability arises for the surveyor simply because a decision on navigability, quite apart from the effect on property rights that may flow from the decision, is a matter of title and outside the ambit of a surveyor's authority to decide.*²⁷

In summary, care must be taken before concluding that statutes, pertaining to water resources for the purpose of allowing public access and navigation, deprive property holders of their rights of ownership. Ownership of the lands in question may be qualified, but perhaps not eliminated. The cases of *Gall v Rogers (1993)* and *Van Diepen v Thomson, (2020)* both allow that boundaries of flooded navigable waterways remain in their pre-flooded position,

hence allowing some degree of ownership to the beds of navigable waters.

Conclusion

Flooded boundaries present a situation that must be uniquely considered in law; they are different from boundaries that have been eroded, accreted, torn away by avulsion, or relicted (i.e., have experienced a rapid fall away of water). While the ‘natural doctrines’ of erosion, accretion, etc. are relevant, they are not, in themselves, determinative of the location of a flooded boundary. Neither must statutes that vest title to waters (navigable or not) be taken as answering the question as to the location of a flooded boundary. If I succeed in these arguments, it would appear that the common law continues to recognize that a flooded boundary remains in its pre-flooded position.



¹ *Gall et al. v. Rogers et al.* [1993]15 O.R. (3d) 250.

² See footnote 44 in *Everything’s Coming up Millhouse: Island 27 in the Otonabee River*, Brian Ballantyne. Ontario Professional Surveyor, Vol. 64, No. 4, pg. 33.

³ *Flooded Lands. A Question of Boundaries?* The Ontario Land Surveyor, Vol. 37, No. 1, Winter 1994, p. 19.

⁴ *Flooded Lands. A Question of Boundaries. An inquiry into the law regarding the location of artificially flooded boundaries.* Peter Knight 1994, Master Thesis, University of Toronto.

⁵ This is my term intended to encapsulate the ancient doctrines of accretion, erosion, avulsion and reliction for which the rapidity, or not, of changes to water courses is key, and from where we obtain phrases like, ‘gradual and imperceptible’. The doctrines are examined at length in my thesis (see note 4), and in

shorter form the Ontario Land Surveyor (see note 3 above).

⁶ *Herold Estate v. Canada (Attorney General)*, 2021 ONCA 579.

⁷ *Van Diepen v. Thomson*, 2011 ONSC 2020.

⁸ *Erik v McDonald*, 2019 ABCA 217.

⁹ See note 1 above.

¹⁰ It is well-settled law (Brian Ballantyne’s personal comments) that the critical date for the determination of a water boundary is that of the patent and not the survey.

¹¹ “On the factual findings of the application judge, the Flooding Principle was not applicable. It was thus an error of law for him to apply it.” *Ibid* p.29.

¹² *Ibid* p.25.

¹³ *Ibid* p. 26.

¹⁴ See note 5 above.

¹⁵ *Water boundaries on Canada Lands: That fuzzy shadowland*, Brian Ballantyne. 2016 Natural Resources Canada Surveyor General Branch.

¹⁶ *Herold Estate v. Canada (Attorney General)*, 2021 ONCA 579 p.28.

¹⁷ *Clarke v City of Edmonton*, [1929] 4 DLR 1010 (SCC). p.149.

¹⁸ *Clarke v City of Edmonton*, [1929] 4 DLR 1010 (SCC). p. 148.

¹⁹ *Gall et al. v. Rogers et al.*, [1993]15 O.R. (3d) 250 p.14.

²⁰ *Attorney-General v. Chambers* (1859), 4 De G. & J. 55; 45 E.R. 22 at 27.

²¹ *Public Lands Act, RSA 2000, c. s. 3 of the P-40*; See also *Water Act, RSA 2000, c. W-3*.

²² *Erik v McDonald*, 2019 ABCA 217 p.5.

²³ See Note 19.

²⁴ *Beds of Navigable Waters Act, R.S.O. 1990 c. B4*.

²⁵ The original purpose of the Beds of Navigable Waters Act, S.O. 1911. c. 6 was to secure Provincial control over the beds of rivers important for the production of hydroelectricity. The need for the appropriation of private interests in the beds of navigable waterways is a moot point.

²⁶ See Note 4 at p. 35.

²⁷ See Note 4 at p. 47.

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Who follows in his Train?

A Tribute to the memory of David W. Lambden

By Hugh Goebelle, Hons. B.A., B.Sc., M.A., O.L.S., C.L.S.

I am finding it difficult, if not impossible, to return to the state of mind which I enjoyed some thirty years ago. That being said, I think the highest praise that I can pay to David Lambden comes from the novels which I was reading when I began sitting down for his evening lectures – *The Chronicles of Thomas Covenant*. These novels taught me that ACCEPTING A GIFT HONOURS THE GIVER.

And what did David Lambden give me? Well, in addition to many books from his library, which continue to reside in my library today, he gave me a venue in which to shine. He recognized my particular abilities as a surveying student and gave me a niche in which I could excel – Survey Law. For David, my background, earned at one of the top liberal arts universities in the country, was a clear asset. The world into which he introduced me and the career path onto which he set me ultimately led me to a position in the same office that he once occupied – the Office of the Examiner of Surveys.

I think this gift of the world of survey law is by far more important than the anecdotal stories which I remember from sitting in his classroom many an evening. These stories are too numerous to recall as he offered so many during each and every lecture. I particularly wonder though how I could excel in his survey law classes given that so few of us in attendance were the descendants of royalty. I did learn though how to spell the word “boundary” which indeed became a useful skill within my chosen profession.

I can only hope that he owned shares in the photocopying industry. Normally, I spent the day after attending his lectures eagerly photocopying articles and statutes and notes. My articling surveyor must have thought that I was on a mad quest or that I was just plain mad... Regardless, the paper which I used amassing survey law knowledge seemed trivial to me but must have helped to build a fortune for anyone in the photocopying industry.

David Lambden also gave me the gift of a life-long friendship. Early in my survey law career, I told David Lambden that I wanted to do what Brian Ballantyne was doing. At that time, Brian was my Teaching Assistant and getting ready for his New Zealand years. So, he gave me Brian’s home telephone number and I contacted him there. Needless to say, I have never looked back since that time. Over the years, my friendship with Brian Ballantyne has produced many of my best post-Erindale moments. Often, those moments involved meeting with me and my daughter at a couple of downtown Toronto pubs during his visits back to Central Canada.

David Lambden also gave me sage advice regarding the career-path into which he had steered me. He told me that I

could not pursue a career in survey law unless I had a patron. His words guided my decisions and my path throughout my many years of private practice. As a result, my career path went in a radically different direction than I may have originally expected.

At the last, David Lambden gave me one of his largest gifts of all. While at his home, attending a dinner of like-minded surveyors, David Lambden told me that he felt that my thesis about double-front townships “got it right”. High praise for what had been the culmination of many years of academic work and endeavours.

Yes, David Lambden leaves a void in all of our professional lives which no one could ever fill.

Some additional thoughts...

As I dug further into the effects which David W. Lambden had upon my life, I re-discovered the following quote hanging upon the wall of my less frequently visited office in London (a side-effect of the COVID-19 Pandemic):

“Neither the words of a deed, nor the lines and figures of a plan, can absolutely speak for themselves. They must, in some way or other, be applied to the ground.”

This quote - words by which surveyors should live – was taken from Richmond, J., in *Equitable Building & Investment Co., v. Ross* (1886), 5 N.Z.L.R. S.C. 229, and was a framed gift to me from David W. Lambden on August 6, 1993.

I’ve heard it said that travel broadens the mind. Well, thanks to David W. Lambden, I travelled far and wide in the first half of the 1990s – all without leaving the confines of southern Ontario. I remember undertaking four projects for him. These undertakings included:

- Examining, amongst other issues, aspects of early surveys near the Big Grassy River in Northern Ontario;
- Examining certain reservations in Sarawak Township and Owen Sound amongst other issues;
- Preparing a case report and study guide for the trial case of *Gibbs v. Grand Bend*; and
- Searching for evidence, if any, that the Crown used the Niagara Escarpment as a natural boundary during its original township surveys and its subsequent letters patent.

This time of my life represented the most active period of my academic studies filled with opportunities made possible by David W. Lambden. Unfortunately, I have lost these contributions over the last thirty years due to moving and computer upgrades.

In the mid 1990s, I embarked upon a different path and at a different university. That being said, David continued to contribute to my academic life. Under his direction, I produced an unpublished paper titled the “Original Surveys in Ontario’s Rainy River District”. This paper examined the township outline surveys and the township surveys in the Rainy River District undertaken by the federal government during the years of the Ontario-Manitoba boundary dispute. This paper also examined how the provincial government incorporated these surveys, originally performed by the federal government, into its own system for township surveying. I also produced an unpublished thesis paper titled “The Double-Front Era of Township Surveying in Upper Canada (1818-1829)” which, in turn, led to three articles published in *The Ontario Land Surveyor* quarterly entitled “The Trials and Tribulations of Thomas Smith”, “The First Double-Front Township of Ontario”, and “The Double-Front Era of Township Surveying in Upper Canada (1818-1829).”

When I thought about how to contribute to this edition of the quarterly paying tribute to the memory of David W. Lambden, I wanted to revive one of my unpublished articles which I had prepared under his direction. With that in mind, I remembered the thoughts of Peachy Carnehan – a character from the 1975 film adaptation of “The Man Who Would Be King” – about how a virtually impassable river gorge on the ground became represented by a little, insignif-

icant, wavy blue line on a map. From this memory, I thought about the Niagara Escarpment. In translation, I asked myself how a virtually impassable cliff wall on the ground became represented by a little, seemingly insignificant, often hachured, line on an original township plan. Unfortunately, no copies of my original work on this topic seem to have survived. I have also been forced to accept this fact after repeated efforts to uncover a surviving copy.

As a result, I have returned to a much larger unpublished summary of my research paper titled “The Shorelines of Double-Front Townships 1818-1821.” Also unfortunately, I have not been able to complete the revival of this 28-year-old paper. So, I beg your indulgence and I ask for you to look for this paper in a future edition of this quarterly publication. When my article appears, I ask you to remember the contributions which David W. Lambden made to your life – professional and otherwise.

In the meantime, I would like to leave you with a quote from “The Man Who Would Be King”, written about 120 years ago by Rudyard Kipling, (New York: Doubleday and McClure Company, 1899, p. 1): “The law, as quoted, lays down a fair conduct of life, and one not easy to follow.”



Hugh Goebelle is an Assistant Examiner Of Surveys with the Ministry of Government and Consumer Services in London, Ontario.

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A Beach becomes a Public Highway

By Tom Bunker, O.L.S., C.L.S., P.Eng., C.P.A. (Ret)

Background

There was a generational gap between the years when David Lambden (1929 – 2021) and I qualified as Ontario and Canada (Dominion) Land(s) Surveyors, he in the 1950's and I in the 1970's, but we both trained in an era where measurement technology was mostly unchanged.

A surveyor typically carried a steel tape repair kit, a book of six-place trigonometric tables and likely a hand-held Curta mechanical calculator in his field bag. David's background was in forestry while mine was in engineering, but both were led to surveying by our love of the out-of-doors.

David's Ontario career was primarily in government and academic areas with only a two-year period in private practice in Northwestern Ontarioⁱ while my career was solely in the private sector in both Northern and Southern Ontario. Our differing educational backgrounds and experiences formed the basis for our individualized approaches in analysis to give opinions on boundary issues. This became particularly clear to me when I tried to find "process" solutions to water boundary issues as an AOLS councillor in the 1980'sⁱⁱ.

The case particulars

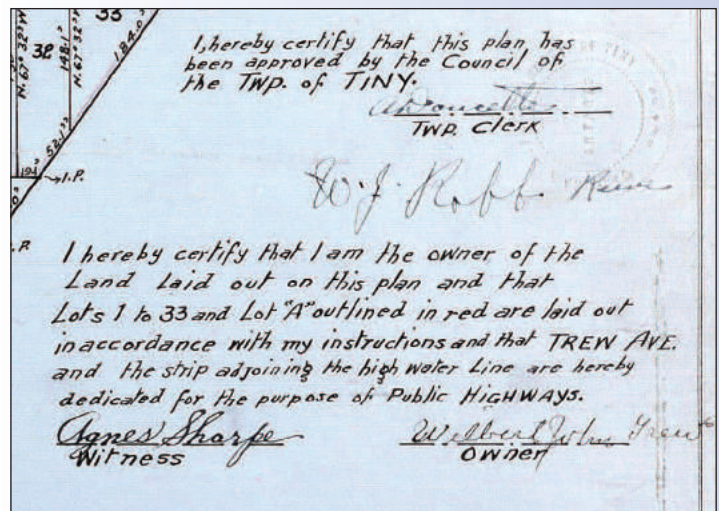
There are at least 100 cottage lot subdivision plans laid down along the Georgian Bay shore of Tiny Townshipⁱⁱⁱ with many registered in the early part of the twentieth century. The plans created streets, lanes and "strips" that were dedicated as public lands but it was not common in the period for Tiny (and indeed other townships) to follow through with registration of acceptance documentation.

In 1999 David was engaged by the municipality to prepare a master schedule of public lands for which the Township had no registered title^{iv}. His recommendation was to correct the oversight prior to the e-conversion of Land Registry Office (LRO) records. Together with the Township planner and solicitor, a strategy of registration of transfers by the

Township to itself and creation of acceptance/assumption by-laws was implemented to create the LRO paper trail.

Township dealings with Registered Plan 813 had court-house ramifications.

By-law 2001-085^v was passed^{vi} to accept the dedication of Trew Avenue as "a public highway of the Township of Tiny assumed for maintenance and construction purposes" and an unnamed 1,760 ft long shoreline strip "is accepted by The Corporation of the Township of Tiny and assumed as a highway of the Township of Tiny for public use." Of course the owners of the beach-front lots were aghast that a "public highway" separated their property from the beach, notwithstanding the clear dedication on the plan. (See enlargement below.) They hired a lawyer^{vii} and proceeded with an action^{viii} to reverse the Township decision.



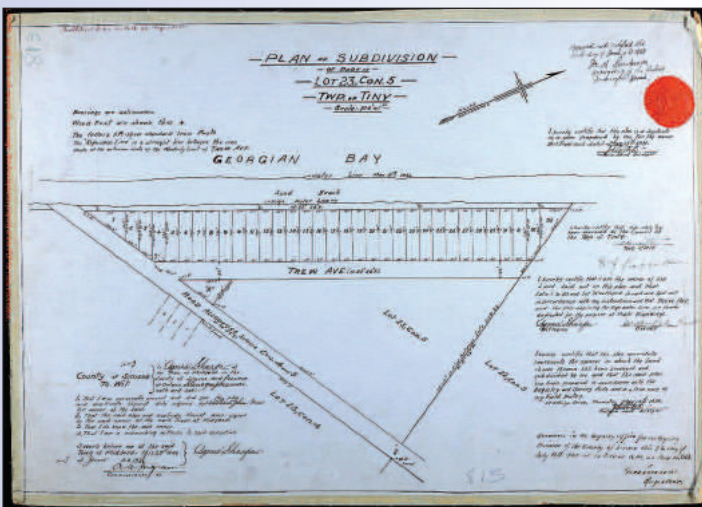
The challenge was launched using two approaches.

1) The Township process and By-law was invalid as no notice given, etc.

This matter was heard at Barrie on March 13, 2006 by R. MacKinnon J. with his decision reported in four pages issued two days later, finding the Township process and By-law valid^{ix}.

2) The second challenge relied on the "mechanics" of riparian ownership

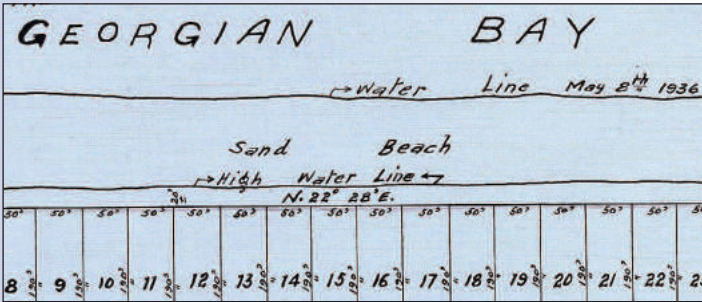
R. MacKinnon J. notes: "Counsel have agreed that the other issues not argued before me (including the applicants' claims both for interests in land by reason of their long-standing use, occupation and/or possession and also their erosion and inundation arguments) should proceed to trial at Barrie with *viva voce* evidence, and I so order. I also direct that those issues be placed on the civil trial scheduling court list at Barrie..."^x



My Involvement

I was engaged in September 2004 by the Township's litigation solicitors Russell, Christie, Miller, Koughan, now Russell, Christie, LLP, to review the evidence that had been disclosed under pre-trial examination, including that of David Lambden for the respondent and James Nicholson, OLS, for the applicant.

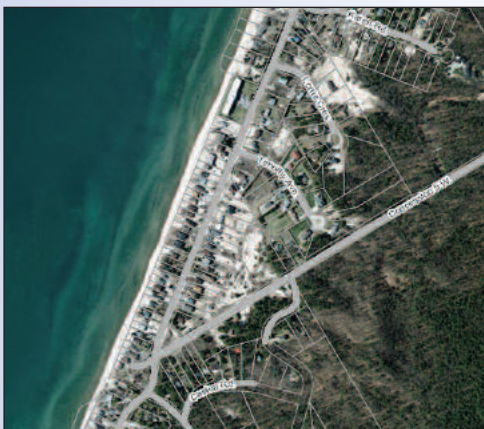
Under examination David confirmed his opinion that the description of the strip as lying between the tier of lots and the "high water line" meant that it was riparian^{xi} and extended always to the water's edge^{xii} to include the "Sand Beach". (See enlargement below.)



The applicant was arguing as follows:

- As a riparian property, the horizontal extent of the strip lying between the lots and the water varied over time, and in particular with changing water levels^{xiii}.
- Any soil under water from time to time is characterized as Crown owned lake bed.
- The highest recorded water level in 1986^{xiv} inundated the whole of the strip and ran into the lots so that the strip effectively disappeared.
- There was no longer a riparian parcel extant and when the water level later lowered, the exposed soil remained as exposed Crown owned bed of Georgian Bay.
- The cottage lots were not riparian and their boundaries were not influenced by changing water levels and inundation.

I attended the site^{xv} on September 4, 2004^{xvi} with Rusty Russell^{xvii} who expressed concern that David did not have an



Imagery opengis.simcoe.ca

adequate response to this proposition. He commented to me that "the Professor took me on a trip around the world of ideas and brought me home with no conclusive solution".

I observed the dynamic nature of the site. The broad sand beach was exposed as water was now low and the sand was constantly shifting along the water's edge with each wave. The upland area could be classified as sand dunes. Evidence of wind movement of the fine sand was observed all around existing physical structures.

The Nicholson evidence included considerable topographic survey work carried out in 2002, including the determination of elevations of existing survey monuments along the water-side of the tier of lots.

I expressed no opinion as to whether the subdivision "strip" was riparian since both the applicant and respondent were taking that position.

My memo report to Russell included:

- it would seem to me that the onus of proof is on the party seeking to extinguish rights, not on the party asserting their known right, and accordingly if we can argue that, on balance of probabilities, any portion of the land (even one square inch) was not lost by erosion (inundation), then as the waters receded we regained all the parcel.

I noted there were two important pieces of evidence that had been produced.

- 1) A top elevation on a particular iron bar set by OLS C.P. O'Dale was shown by Nicholson to be higher than the highest observed water level. Ontario Regulations mandated that iron bars be set with the top not more than 10 cm above ground level. A prudent surveyor would not likely leave a survey bar protruding in a beach^{xviii}. Since O'Dale had retired before 1986^{xix}, its placement preceded the high water spike. If it had been exposed by sand erosion, I posited that someone would have driven this "tripping hazard" in the beach front down to current ground level.
- 2) A contour map had been derived from April 1988 aerial photography. I commented:

My review of the mapping from April 1988 photos suggests that a few small sections were above the spike maximum 1986 water height. Is it reasonable to use the 1988 mapping as a proxy for the conditions that existed in November 1986? I'd note that over the two winter periods (Nov/86 to April /87 and Nov/87 to April/88), there was likely reduced building of dunes since the sand and lake were frozen and over the intervening summer period only a narrow expanse of sand was available as building materials as the waters receded. Is the mapped water level consistent with the recorded data? As the water receded, is it likely that dunes were washed down by wave

cont'd on page 26

action? Our position then is that some portion of the strip remained intact during the high water periods and there is no conclusive proof otherwise.

Final Commentary

Each surveyor can bring a researched and thoughtfully valid opinion to a case that will be founded on his/her training and experience. My training in engineering gave me an understanding of soil mechanics. An on-site observation provided a useful perspective of the factual situation. I understood the complexities of water boundaries after thirty years of experience. My focus in the private sector was to find solutions for my client.

I could find no report on the case that was referenced to the May 2006 schedule of the Barrie Court. The solicitors at Russell Christie LLP that had knowledge of the case are no longer available, but the firm confirmed that their records indicate the case had not continued.

In 2009 OLS G. Preston deposited a description reference plan 51R-36676 illustrating the strip lying between the RP813 lots and the *water's edge* as PART 1 and being the strip subject to the 2001 by-law. There are no further dealings shown on PIN 58393-0001(LT) with the Township as registered owner.



- i David Lambden Obituary - Guelph, ON | Gilbert MacIntyre & Son Funeral Home and Chapel Ltd.
- ii AOLS Water Boundaries Working Group revisited – Ontario Professional Surveyor, Summer 2020
- iii Par [3], Becking v. Tiny (Township), 2006 CanLII 8720 (ON SC) tinycottager.org/articles/2000Fall/lambdenstudy.htm
- iv Township of Tiny By-laws: Township website
- v By-law was registered as RO1458598 on 2001/07/13
- vii Izaak de Rijcke, lawyer and surveyor
- viii Certificate of pending litigation registered as RO1459665 on 2001/08/10
- ix Becking v. Tiny (Township), 2006 CanLII 8720 (ON SC)
- x Par[4], ibid
- xi See similar issues decided by later cases: Battaglia v Tiny, Ellard v Tiny, etc.
- xii Water level May 1936 – 176.01 IGLD55
- xiii Water levels on the Great Lakes have regularly been recorded since the 1840's. See the Canadian Hydrographic Service: www.tides.gc.ca
- xiv Highest in fall 1986 - 177.5 IGLD55
- xv Site attendance cannot be over emphasized when giving an opinion as an expert witness: see Par [72] Collingham v. Algonquin Highlands (Township), 2007 CanLII 1321 (ON SC)
- xvi Water level - 176.3 IGLD55
- xvii W.D. (Rusty) Russell (1925 – 2019) was a founding principal of the firm and author of "Russell on Roads", 3RD Edition, 2015, Carswell
- xviii Reference to claims to the Liability Insurance Program, Association of Ontario Land Surveyors
- xix 1986 Annual Report, Association of Ontario Land Surveyors

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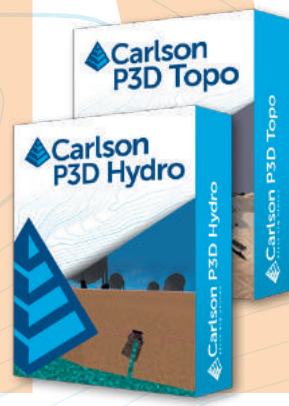
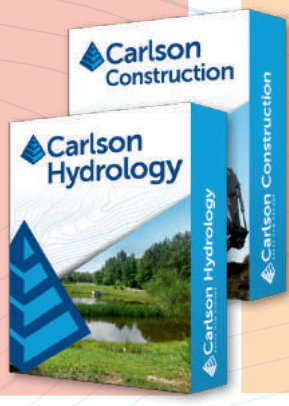
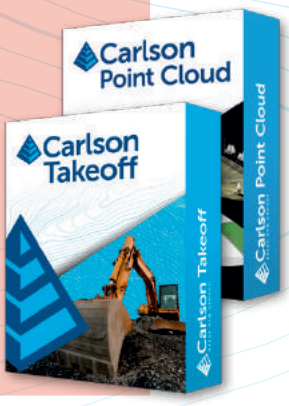
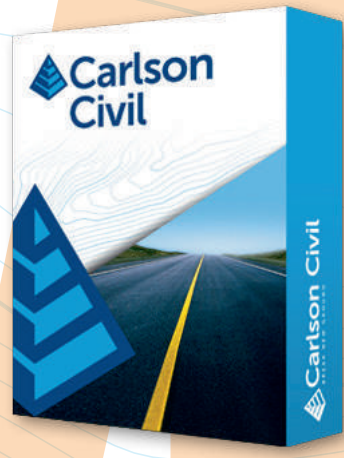
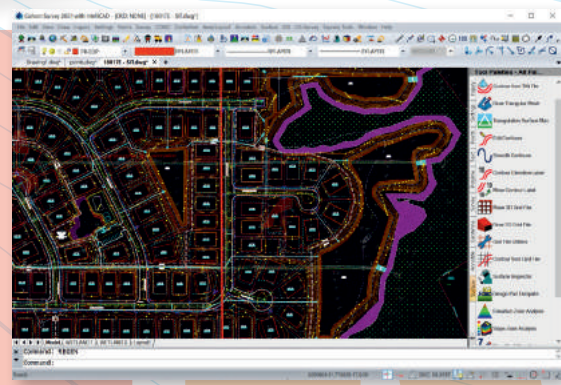
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Survey Review Department Forum



By Paul Wyman, O.L.S., Manager Survey Review Department

Introducing the Survey Review Department

For my first article, as the manager of the AOLS Survey Review Department (SRD), I will introduce the staff members of the SRD department.

The outgoing manager is Tom Packowski who has done a remarkable and consistent job of maintaining and improving the department. I inherit a department that is financially solvent, well run and meeting its mandate. Our Association owes a dept of gratitude for Tom's hard work over the past 3 years. Tom has not completely retired as he has become the SRD consultant who will undertake the annual Systematic Reviews (plan reviews) for every surveyor signing survey plans.

In addition to the Manager, the SRD has 3 staff members and 6 consultants (including Tom):

Paul Wyman, OLS - SRD Manager

Learning from peers, university and college courses, self-study and participating in Association activities have helped me develop as a surveyor and as a person. My motto has become: *Professional Excellence through Lifelong Learning*. I am a strong believer in the AOLS commitment and duty to protect the public interest.

Commissioned (1344) as an Ontario Land Surveyor in 1973, I worked in private practice up to 2001 and then worked with the federal government Real Property Geomatics Services until retiring in 2014. Along the way, I undertook SRD comprehensive reviews, AOLS registrar's investigations, wrote articles for the AOLS *Ontario Professional Surveyor* magazine and provided seminars on behalf of the AOLS Continuing Education Committee (CEC). This work career has provided me with the opportunity to be involved with a wide variety of survey work including activities as an expert witness.

Throughout the years, I served on several AOLS committees, including 6 years on AOLS Council, and had the privilege of being president in 1993. In September of this year, I became the Manager of the AOLS Survey Review Department. I am looking forward to being actively involved in the administration of the Department.

Sheila Lavina – SRD Administrative Officer

Sheila has been with the AOLS for 11 years, the last 7 as the SRD Administrative Officer. Many survey firms will be familiar with Sheila as she handles the sale of plan submission stickers. In addition, her duties include:

- Providing month end reports required by Accounting and

the SRD Manager,

- Ordering and maintaining supplies,
- Coordinating the flow of files, reports and other support materials and tracking submissions to ensure that time-lines are met,
- Coordination and Maintenance of Comprehensive and Systematic Review lists and the SRD database.

Alan Worobec, OLS – SRD Examiner

Al graduated from the University of Toronto (U of T) with a B.Sc. in the Survey Science Specialist program in 1984 and was commissioned (1613) as an Ontario Land Surveyor in 1986. He joined the Survey Review Department to conduct Field Examinations in 2014 after 22 years of private practice.

Al has been active in the AOLS including election to Council for 6 years and AOLS President in 2009. He has been actively involved with the Rotary Club of Barrie Huronia and enjoys fishing, hunting, working and playing in the bush, and exploring desert trails in Arizona & California.

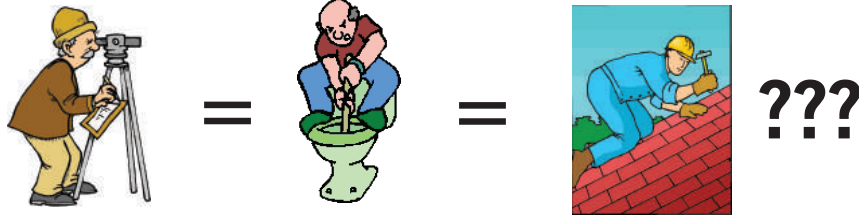
As the SRD Examiner, he enjoys travelling the province while augmenting the Peer Competence Review process with onsite verification of survey evidence and physical features to ensure compliance with the Standards of Practice and Statutes that govern Ontario Land Surveyors. His role helps surveyors, and their staff, uphold the AOLS standards that protect the Public Interest.

Herman Bernardo – SRD Examiner Assistant

Herman graduated from the George Brown College, Survey Technician program in 1978 and has worked with various surveying firms. He began work with the AOLS in 2009 as the SRD Surveys Examiner Assistant. He works with Al Worobec to complete the field examinations and he works in the AOLS office where he is responsible for the following tasks:

- Sorting and storing hard copy and E-plans received from Land Registry system,
- Assisting with Systematic Review plan selection & tracking,
- Reviewing Comprehensive Reviews supporting documentation for missing material,
- Performing Comprehensive Review plans selection,
- Coordinating Field Examination travel,
- Assisting with the Annual General Meeting and the Geodetic Picnic,
- Acting as the go-to person whenever something needs to

cont'd on page 30



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be assembled, disassembled, moved, or fixed in the AOLS office.

Thomas Packowski, OLS – Systematic Review Consultant

Tom worked as a survey assistant for several years before going to U of T and graduating from the Erindale College Survey Science program in 1979. He was commissioned (1572) as an Ontario Land Surveyor in 1984.

In 1985, Tom joined Fred G. Cunningham OLS in Milton, Ontario, becoming the owner in 1989. There is a bench in a gazebo overlooking the Mill Pond in Milton. On the bench is an inscription that says “Fred G. Cunningham 1921 to 2001 – Ontario Land Surveyor. He was an honourable man.” And he was.

Tom served 10 years on the AOLS Discipline Committee and is Chair of the AOLS Continuing Education Committee. He has been on the committee for about 15 years, the last 7 serving as Chair. In 2018 Tom joined the AOLS as the Manager of the SRD and is now an SRD Consultant.

Drew Annable, OLS – Comprehensive Review Lead Consultant

Commissioned (1434) as an Ontario Land Surveyor in 1977, Drew worked at and became a partner in Archibald, Gray & McKay Ltd., Ontario Land Surveyors in London, Ontario until retiring in 2011. His work experience encompassed the full range of cadastral surveys including appearances in court as an expert witness.

Drew has served on numerous AOLS committees including AOLS Council (1991 to 1997) and was AOLS President for the 1995 term. He has given papers and lectured on behalf of the Association. He has also been active in the community being a Past President of the Rotary Club of London–Lambeth.

Drew has been a consultant to the AOLS Survey Review Department from 2012 to the present. He is the most experienced of the SRD consultants and provides training and advice for the other consultants – and the SRD MANAGER.

Phillip Hofmann, OLS – Comprehensive Review Consultant

Phil graduated from the Erindale College Survey Science program in 1979 and was commissioned (1533) as an Ontario Land Surveyor in 1982. He worked in private practice for over 35 years. His primary work area was the GTA, with some work in the Collingwood and Barrie areas. He undertook a variety of cadastral surveys with emphasis on subdivision development and condominium surveys.

Phil has been an SRD consultant for one and a half years.

He enjoys soccer, baseball, and golf. History is a passion, particularly the Middle Ages and Naval history.

Danny Quinlan, OLS – Comprehensive Review Consultant

Dan graduated from the Erindale College Survey Science program in 1981 and was commissioned (1579) as an Ontario Land surveyor in 1985. He worked in private practice until

1992, and then moved to the City of Scarborough (amalgamated into the City of Toronto) for the next 28 years.

Dan has served on several AOLS committees, including the AERC and Discipline. He has been an SRD Consultant for the last 18 months.

Ernest Sperling, OLS – Comprehensive Review Consultant

Ernie graduated from the Survey Science program at U of T in 1993 and was commissioned (1799) as an Ontario Land Surveyor in 1996. He has worked in private practice and continues to operate Sperling Surveying Inc., formerly in the Bradford area, relocating to Minden in mid-2020.

From 2009 to present, Ernie has also been teaching Surveying courses as part of the Civil Engineering and Architectural programs at Georgian College, Barrie Campus and from 2012 and 2017 he was the General Manager for Westin Homes Limited (Bradford).

Ernie is the SRD’s newest consultant. He has recently completed the training and is now finishing up his first comprehensive reviews.

Chester Stanton, OLS, CLS – Comprehensive Review Consultant

In 1982 Chester graduated from the University of Toronto with a Bachelor of Science, specialist degree in Survey Science. In 2015 he received his Master of Business Administration from Lakehead University. He also has his private pilot’s license.

Chester was commissioned (1570) as an Ontario Land Surveyor in 1984 and as a Canada Lands Surveyor in 1995. He has been and continues to work in private practice, currently being the president of Dearden and Stanton Ltd. and C.T. Strongman Surveying Limited (a Division of Dearden and Stanton Ltd.). His work experience encompasses the full range of cadastral surveys including appearances as an expert witness in court.

Chester has served on several AOLS and CLS committees and has published papers in the AOLS *Ontario Professional Surveyor*. He was also a presenter at the *Fifth Annual Boundary Law Conference* hosted by Four Point Learning.

Chester has been a consultant with the SRD since 2018.

In conclusion, I urge all Ontario Land Surveyors and survey companies to work collaboratively with the SRD staff and consultants. As we do, please view the process as an educational activity and a chance for everyone to learn and improve their surveying practices.

One final item, when ordering plan submission stickers, consider the ‘digital’ sticker option instead of the physical plan sticker. There are a few advantages, such as:

- There is little or no delay in obtaining the digital stickers – we send them to you by e-mail,
- There is a cost savings to the AOLS in printing, shipping, and labour,
- There is a cost savings to the survey firm for not having to apply a physical sticker to a plan print and transport it to the LRO.





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Registrar's Review

By Kevin Wahba, B.Eng., LL.B., O.L.S., Barrister & Solicitor



Earlier this year, a risk management approach to Registrar's Investigations was developed and published in the members' portal of the AOLS website. To review the document, enter the members' portal, go to member tools, policies and internal policies.

Section 30 of the *Surveyors Act* sets out the power to launch a Registrar's Investigation:

"Where the Registrar believes on reasonable and probable grounds that a member of the Association has committed an act of professional misconduct or incompetence or that there is cause to refuse to issue or to suspend or revoke a certificate of authorization, the Registrar by order may appoint one or more persons to make an investigation to ascertain whether such act has occurred or there is such cause, and the person or persons appointed shall report the result of the investigation to the Registrar."

The determination of what allegations or evidence may reach the standard of reasonable and probable grounds is not a simple determination. The phrasing reasonable and probable is vague and may be subject to a spectrum of interpretation when applying that standard to a set of facts. This may have been intended to allow the Registrar discretionary decision making and flexibility when considering triggering an investigation. Notwithstanding the above, a guide which recommends certain factors to be considered when understanding when an investigation may be appropriate. Although the document attempts to act as a guide, the Registrar has the discretion and flexibility to consider factors which may not have been discussed in the document, and ultimately, an investigation should flow from a need to ensure that the Association of Ontario Land Surveyors' primary mandate of protecting the public is discharged. Nevertheless, the document attempts to assist the Registrar

in the decision-making process in the context of Registrar's Investigations.

The factors, which may be considered when considering a Registrar's Investigation, include the characteristics of the notification of potential professional misconduct or incompetence, the practice type and settings of the member in question, and the characteristics of the practitioner. Additional considerations, which may be taken into account, include two or more complaints raised recently from the public against the same surveyor, a complaint raised by another member, a historic pattern of complaints against the same member, repeated interventions from the AOLS related to CPD, fees, etc., an SRD referral and a combination of the issues indicated above.

In general, a Registrar's Investigation is one of several tools available to the AOLS to discharge its primary mandate to protect the public. As such, public protection will be the main factor when considering whether an investigation under Section 30 should be launched. If there is more urgency related to the concern, the more likely an investigation will be considered.

The contents of the document attempt to guide the Registrar's decision-making process, however, there is minimal discussion related to the implementation of an investigation. Generally, if the evidence allows the Registrar to conclude that reasonable and probable grounds exist, an investigation will be triggered immediately. There may also be an instance where there is uncertainty if those grounds have been established. If so, the Registrar will attempt to implement a preliminary investigation with the member of concern.

The document attempts to facilitate consistency when implementing a Registrar's Investigation, however, the Registrar is afforded the discretion to act as they deem appropriate in a particular instance.



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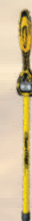
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EDUCATIONAL FOUNDATION NEWS

Congratulations to our Fall Award Winners!

Ryerson University – Awards were recently presented to the following Civil Engineering students who achieved academic excellence in CVL 323 – Fundamentals of Surveying: **Chloe Thorp, Faisal Awan, Aameer Irfan** and **Tess King**. The following students received awards for academic excellence in CVL 323 and CVL 352 – Geomatics Measurement Techniques: **Anish Nothoo, Bhumikakumari Patel, Syeda Ali Shaw** and **Arsalan Khan**. All of these students have expressed an interest in pursuing a career in land surveying. **Michael Villafuerte, Jr.** received the **Fernando De Luca Memorial Award**, which recognizes a graduate of the Civil Engineering program who demonstrates high academic achievement in CVL 650 – Satellite Geodesy and shows an interest in pursuing a career in Geomatics Engineering. The **Genesis Land Surveying Baird and Mucklestone Award** was presented to **Mikhail Moshe**. This

award is presented to a student entering 4th year who demonstrates high academic achievement, shows professionalism, and has an interest in pursuing a career in Geomatics Engineering.

Update on the Supplementary Letters Patent

Last year at the Annual Meeting of Members, a Special Resolution was passed to file Supplementary Letters Patent, which if accepted by the federal and provincial governments, would allow the Foundation to provide awards to Geomatics students across Canada. Unfortunately, we have not yet received a response regarding our requested changes. We will notify the members once any information is received.

Annual Meeting of Members

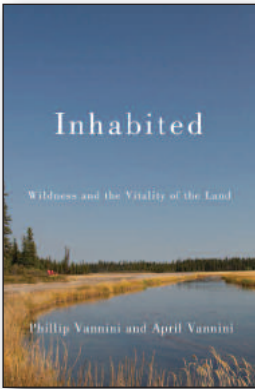
The date of the Educational Foundation Annual Meeting of Members has not yet been determined due to the uncertainty of in-person attendance at the AOLS AGM. Details about the meeting will be announced in the In Sight newsletter in the new year.

BOOK REVIEWS

Inhabited

Wilderness and the Vitality of the Land

By Phillip Vannini and April Vannini



Published by McGill-Queen's University Press
ISBN 978-0-22800-896-5

Through an ethnographic exploration of Canada's ten UNESCO Natural World Heritage sites, *Inhabited* reflects on the meanings of wildness, wilderness, and natural heritage. As we are introduced to local inhabitants and their perspectives, Phillip Vannini and April Vannini ask us to reflect on the colonial and dualist assumptions behind the received meaning of wild, challenging us to reimagine wildness as relational and rooted in vitality. Over the three years they spent in and around these sites, they learned from Indigenous and non-Indigenous peoples about their entanglements with each other and with non-human animals, rocks, plants, trees, sky, water, and spirits. The stories, actions, and experi-

ences they encountered challenge conventional narratives of wild places as uninhabited by people and disconnected from culture and society. While it might be tempting to dismiss the idea of wildness as outdated in the Anthropocene era, *Inhabited* suggests that rethinking wildness offers a better – if messier – way forward.

Part geography and anthropology, part environmental and cultural studies, and part politics and ecology, *Inhabited* balances a genuine love of nature's vitality with a culturally responsible understanding of its interconnectedness with more-than-human ways of life.

Information taken from the publisher.

University Women

A History of Women and Higher Education in Canada

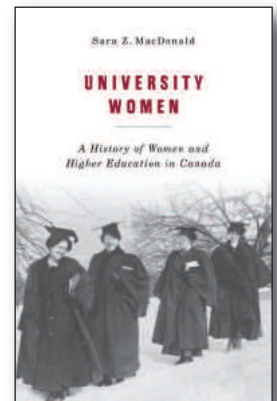
By Sara Z. MacDonald

In *University Women* Sara MacDonald explores the processes of integration and separation that marked women's contested entrance into higher education. Examining the period between 1870 and 1930, this book is the first to provide a comparative study of women at universities across Canada. MacDonald concludes that women's higher education cannot be seen as a progressive narrative, a triumphant story of trailblazers and firsts, of doors being thrown open and staying open. The early promise of equal education was not fulfilled in the longer term, as a backlash against the growing presence of women on campuses resulted in separate academic programs, closer moral regulation, and barriers that

restricted their admission into the burgeoning fields of science, technology, engineering, and mathematics. The modernization of higher education ultimately marginalized women students, researchers, and faculty within the diversified universities of the twentieth century.

University Women uncovers the systemic inequalities based on gender, race, and class that have shaped Canadian higher education. It is indispensable reading for those concerned with the underrepresentation of girls and women in STEM and current initiatives to address issues of access and equity within our academic institutions.

Information taken from the publisher.

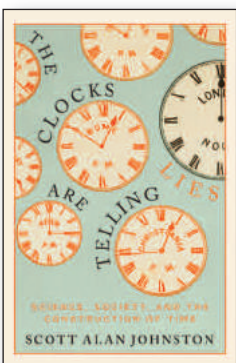


Published by McGill-Queen's University Press
ISBN 978-0-228-00864-4

The Clocks are Telling Lies

Science, Society, and the Construction of Time

By Scott Alan Johnston



Published by McGill-Queen's University Press
ISBN 978-0-228-00843-9

Until the nineteenth century all time was local time. On foot or on horseback, it was impossible to travel fast enough to care that noon was a few minutes earlier or later from one town to the next. The invention of railways and telegraphs, however, created a newly interconnected world where suddenly the time differences between cities mattered. *The Clocks are Telling Lies* is an exploration of why we tell time the way we do, demonstrating that organizing a new global time system was no simple task. Standard time, envisioned by railway engineers such as Sandford Fleming, clashed with universal time, promoted by astronomers. When both sides met in 1884 at the International Meridian Conference in Washington, DC, to debate the best way to organize time, disagreement abounded. If scientific and engineering experts could not

agree, how would the public? Following some of the key players in the debate, Scott Johnston reveals how people dealt with the contradictions in global timekeeping in surprising ways – from zealots like Charles Piazzi Smyth, who campaigned for the Great Pyramid to serve as the prime meridian, to Maria Belville, who sold the time door to door in Victorian London, to Moraviantown and other Indigenous communities that used timekeeping to fight for autonomy.

Drawing from a wide range of primary sources, *The Clocks are Telling Lies* offers a thought-provoking narrative that centres people and politics, rather than technology, in the vibrant story of global time telling.

Information taken from the publisher.

The Last Word

The Rideau Canal

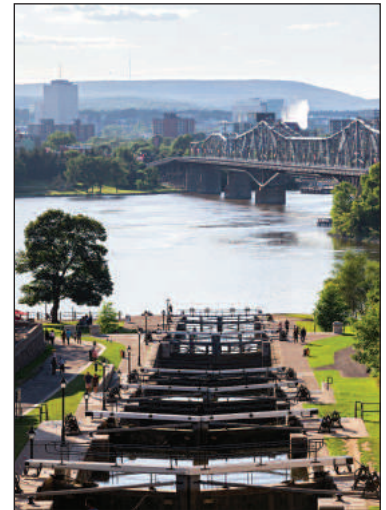
The Rideau Canal is a recreational paradise, attracting visitors from across North America and beyond to travel its 202 km length and explore its historic engineering and military feats at 24 unique lockstations. Consisting of a series of beautiful lakes and rivers connected by canals, it stretches from Kingston to Ottawa, Canada's capital, and is the oldest continuously operated canal in North America.

This engineering marvel and the fortifications built at Kingston to protect it were constructed at a time when Great Britain and the United States of America vied for control of the north [part] of the American continent. Conceived in the wake of the War of 1812, it was to be a war-time supply route providing a secure water route for troops and supplies from Montreal to reach the settlements of Upper Canada and the strategic naval dockyard at Kingston. Through a stroke of brilliance, Lt. Col. John By of the British Royal Engineers envisioned and built a canal that would join the Cataraqui and Rideau Rivers. Thousands of Irish immigrants, French Canadians and Scottish stonemasons were among the labourers who helped push the canal through the rough bush, swamps and rocky wilderness of Eastern Ontario. Opened in

1832, the Rideau Canal was one of the greatest engineering feats of the 19th century, and today is the best-preserved 'slack-water' canal in North America, and the only canal from the great 19th-century canal-building era that still operates along its original route and with most of its original structures intact.

When the fear of war passed, the canal soon became a major artery for regional commerce. Today, the log rafts, barges and steamers have given way to pleasure boats and paddlers, while scenic driving, cycling and hiking routes along the waterway provide easy access to the lockstations by land.

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