



The Baseline

The Newsletter of the Alberta Geomatics Historical Society

Collecting, Preserving and Sharing the History of Land Surveying in Alberta

Vol. 1 No.1

September 2024

Message from the President

Introducing the Alberta Geomatics Historical Society:

We are thrilled to introduce “The Baseline”, the inaugural newsletter of the Alberta Geomatics Historical Society (AGHS). Much like a baseline in surveying serves as a starting point, this newsletter marks the beginning of our journey together. We are filled with purpose and excitement for the opportunities that lie ahead. Recognizing that history guides the future, our society is dedicated to preserving the rich heritage of land surveying in Alberta.

A Glimpse into History

Alberta's landscape is not just defined by its natural beauty but also by the efforts of land surveyors who have shaped and mapped its terrain over the years. From the early explorers who ventured into uncharted territories to the modern professionals using cutting-edge technology, the story of land surveying in Alberta is one of innovation, perseverance, and dedication. The Alberta Geomatics Historical Society aims to honor this legacy by documenting the stories, achievements, and contributions of land surveyors throughout Alberta's history. Through our research, articles, and educational initiatives, we will seek to ensure that their invaluable work is recognized and celebrated for generations to come.



*from the Hugh Pearson photograph collection,
Survey of Great Slave Lake, Season of 1922,
ALSA 2007.14.01*

Preserving Our Legacy

One of the primary objectives of AGHS is the preservation of historical artifacts, documents, and records related to land surveying in Alberta. When the Alberta Land Surveyors Association decided to focus on its regulatory role it transferred to the Society a rich legacy of over 700 survey artifacts, a vast collection of historical photographs, a treasure trove of survey history, and the extensive experience of many dedicated surveyors who have volunteered for decades. These materials serve as windows into the past, offering valuable insights into the techniques, tools, and challenges faced by early surveyors. By safeguarding these treasures, we are not only preserving our history but also providing valuable resources for future research and study.

We encourage members and supporters to contribute to our preservation efforts by sharing any relevant materials they may possess, such as old maps, surveying equipment, photographs, or documents. Together, we can ensure that Alberta's land surveying heritage remains alive and accessible to all.

Les Frederick, President

Names from the Past: Morrison Parsons (M. P.) Bridgland, D.L.S.



Guides in Charge of Climbing—Yoho Camp 1906. *Left to right:* Edouard Feuz, Swiss guide; H.G. Wheeler, asst. guide; M.P. Bridgland, chief guide; Gottfried Feuz, Swiss guide. *Canadian Alpine Journal* 1 (1907/08), facing 168.

Morrison Parsons (MP) Bridgland was born in Toronto, Ontario on December 20, 1878. He graduated from the Maths & Physics Program at Victoria University in Toronto in 1901 and then entered the engineering course at the Ontario School of Practical Sciences at the University of Toronto.

Bridgland worked as A. O. Wheeler's assistant from 1902 until 1909, where he honed his skills as a mountaineer, a surveyor and the use of a phototopographic camera to map the Canadian Rockies. On March 10, 1905, he was commissioned as a Dominion Land Surveyor, and in March 1906, Bridgland, along with A. O. Wheeler, became a founding member of the Alpine Club of Canada.

Bridgland's 1915 Survey of Jasper Park

With the importance of tourism a concern for the newly formed province of Alberta, Bridgland was sent to the newly named Jasper Park to undertake a phototopographical survey of the park to create an accurate map of the area. He had a crew of five men: one assistant, two labourers responsible for being packers and assistants, and two cooks who would also pack the horses. His assistant was Edward Hyatt, who had been articling with Bridgland for two years and had passed his first set of DLS exams. Utilizing two sets of instruments, Bridgland and Hyatt could separate and work in different areas.

On June 27, 1915, Bridgland and his team climbed the first of many peaks to come, Signal Mountain (2255 m), where he established two stations that enabled a 360-degree panoramic view for his photographs. At each station, the camera had to be perfectly level, with the horizon point consistent on each photograph, and the direction of each photograph determined by transit measurements. Bridgland not only took photographs but also took vertical and horizontal angles with his transit. He would take sufficient measurements with his transit from each station to at least two prominent points, such as mountain peaks or rock cairns they had built on earlier locations. These measurements would be invaluable in the map making process.

After more than a hundred days of fieldwork, including eight first ascents of snow covered mountains such as Mt. Majestic (3086 m) and Vertex Peak (2957 m), surveying through valleys with dense underbrush and windfall, and working in rain, snow and wildfire smoke, the field portion of the survey came to an end. Bridgland and his crew had surveyed and taken 735 photographic plates from 92 photographic control stations. On October 13, Bridgland took his final photograph of the survey and had collected enough data to map an area of approximately 2500 km².

Creating a map from the collection of photographs would take several more months of painstaking work. By the following spring, Bridgland and his office team had produced six sheets of the *Map of the Central Part of Jasper Park, Alberta* on a scale of 1:62,500 (approximately 1 inch per mile) with contour intervals of 100 feet.

All article information courtesy of "*Mapper of Mountains, M.P. Bridgland in the Canadian Rockies, 1902-1930*" by I. S. MacLaren. The University of Alberta Press

Bridgland Repeat Photography Project, 1998

In 1998, researchers at the University of Alberta initiated the Bridgland Repeat Photography Project, where members reoccupied the camera stations used by Bridgland during his 1915 surveys and re-photographed his scenes. This project allowed for direct comparisons of how landscapes, vegetation, glaciers, and other factors have changed in the area over time. In addition, the influence of fire prevention in the park over the past century has resulted in increased vegetation and forest cover.

This endeavor has now evolved into the Mountain Legacy Project, which has expanded to include other areas such as Banff, Waterton, and Kootenay National Parks. The photographs below show Bridgland photographs taken in 1915 beside its modern day equivalent.



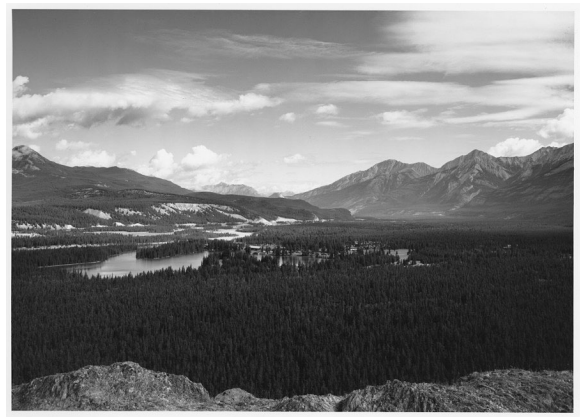
*M.P. Bridgland's photograph of Jasper from Signal Mountain, June, 1915
Courtesy Library Archives e011313274*



*Photograph taken from the same location on Signal Mountain by the Mountain Legacy Project in July, 2022
Courtesy Mountain Legacy Project DSCF4015*



*Photograph taken by M. P. Bridgland of Lake Beauvert and "Tent City" from Old Fort Point, Sta 26, no 220 in 1915.
Courtesy Library Archives Canada e011313267*



*Photograph taken from the same location on Old Fort Point showing Jasper Park Lodge by the Mountain Legacy Project in July 1998
Courtesy Mountain Legacy Project R217*

Bridgland Repeat Photography Project information courtesy of the Mountain Legacy Project, www.mountainlegacy.ca



Get Involved!

We invite all who share our passion for land surveying and Alberta's rich history to join us in this important journey. Whether you are a seasoned professional, a history enthusiast, or simply curious, there is a place for you in the Alberta Geomatics Historical Society. Together, we can make a meaningful impact in preserving the legacy of land surveying in Alberta.

By becoming a member, you help ensure the future of our collection and the financial sustainability of the Society. Your membership will enable the Alberta Geomatics Historical Society to share the rich history of land surveying for many years to come. As they say, the culture of a society is shaped by its knowledge of the past, and the same is true for the survey profession. You'll be part of celebrating the proud legacy of land surveyors, rooted in a culture of service and integrity, while also highlighting the exciting future of the profession.

Volunteering Opportunities: Contributing to our society can be incredibly rewarding and impactful! Here are some ways you can help non-financially:

- 1. Article Contributions:** Share your knowledge by writing articles related to the Society's mission, such as research findings, opinion pieces, or informative guides.
- 2. Editorial Review:** Assist in maintaining the quality and accuracy of our content by reviewing and editing submitted articles.
- 3. Project Ideas:** Bring innovative ideas and fresh perspectives for future projects, including brainstorming, planning, and implementation.
- 4. Event Planning:** Help organize events, workshops, or webinars by managing logistics, promotion, and coordination.
- 5. Mentorship and Training:** Offer your expertise to mentor new volunteers or provide training on specific skills or knowledge areas.
- 6. Community Outreach:** Engage with the community to raise awareness about our work and recruit new volunteers.

Volunteering not only benefits the Society but also provides personal growth and satisfaction. It's a fantastic way to make a positive impact and connect with like-minded individuals.

Join us today and help preserve Alberta's land surveying history and share its fascinating heritage!

Alberta Geomatics Historical Society Executive Board 2024-2025:

President: Les J. Frederick

Vice President: Ed Titanich

Treasurer: Monroe Kinloch

Secretary: Gayle van den Camp

Member at Large (Curator & Website): Gord Olsson

Contact AGHS Email: info@albertalandsurveyhistory.ca

Website: www.albertalandsurveyhistory.ca

For more information about how you can support the AGHS, please visit our website at www.albertalandsurveyhistory.ca or email us at info@albertalandsurveyhistory.ca