

in the Arctic and has made a number of important contributions to the understanding of its geology. He has clearly kept in touch with the literature and presents a very up-to-date view of the geology, something difficult to find elsewhere.

The Arctic provides a great example of how geology should be done. Its remoteness prevented any significant geological studies before about 1950. Then, a small number of extremely talented geologists and paleontologists working for the Geological Survey of Canada established a consistent geological framework for the entire region. This means that the Arctic was spared the proliferation of stratigraphic names that curses more southern areas. Eyles and Miall tell the story well, starting from the 600 to 370 million-year-old rocks that formed the ancient margin of North America. Their collision with another continent that formed the Ellesmerian mountains around 370 million years ago, and the subsequent protracted separation from that continent formed the Sverdrup Basin and the modern continental margin of the Arctic Ocean. The final phase of Arctic tectonics, called the Eurekan Orogeny, was caused by the rotation of Greenland and its collision with northern Ellesmere Island. The timing and impact of this little-known collision are well explained. This chapter should go a long way to plugging the enormous gap in knowledge that most Canadians have about the geological development of the Far North.

The rest of the book looks at geological issues that are more closely related to human society, including the last ice age, resource development, water issues, and challenges for the future. Some of Canada's key resources, past and present, are discussed, and the oil sands and diamond mines, source of western Canada's current economic boom, are given prominence.

Despite being billed for an educated but non-geological audience—the back cover calls it a reference for naturalists, rockhounds, students, and engineers—this book almost requires the reader to have some level of geological background. The authors, like most geologists, forget that not everyone speaks Geology. Most of the technical words used are defined in the text and there is a helpful glossary at the back, but if the words, “eustatic,” “detrital” or “clastic” do not conjure an image in your mind, you may find yourself flipping pages for definitions.

This book introduces new paradigms, but leaves some outdated ideas intact. The most interesting new slant this book takes is on the development of Canadian geological thought. Giants of science are brought to the public eye. For instance, Tuzo Wilson and A.P. Coleman get short biographies, and Yves Fortier, Tim Tozer, Ray Thorsteinsson, and Hans Trettin are given credit for the impact that their work had on the current understanding of Arctic geology. Other great Canadian stories, such as the history of the late Precambrian between 750 and 550 million years ago (Snowball Earth, the Ediacaran fauna at Mistaken Point, Newfoundland) and the Burgess Shale are told piecemeal, and fail to bring out the force of new research.

The book is lavishly illustrated, and the publisher did not waste any space. Photographs often have a smaller photograph inserted to cover a boring area of sky or sea. This practice introduces several problems: the book appears busy, lacking white space; there is often a wide separation between the text and pertinent figures; and the reader often has to jump several pages of figures to find the continuation of a sentence. Given that some of the figures are duplicated or recycled (you can still find the USSR on a map), I would have preferred fewer illustrations more strategically placed. I suspect that the non-technical reader could use more prompts in some figures as well, for instance labeling of key features or contacts in the photos, or an arrow showing the original way up in overturned rocks.

I really enjoyed this book. I caught up on topics that I have not thought about since my undergraduate degree, and I learned new things about climate and recent earthquakes. I enjoyed the sections on how geology and humans interact. Historical snapshots help bring the science alive. Almost everyone could find something to enjoy in this book, and it will give students and amateur geologists an important entry point into the fascinating story of Canada's past.

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THE NORTHERN HORIZONS OF GUY BLANCHET: INTREPID SURVEYOR, 1884–1966. By GWYNETH HOYLE. Toronto, Ontario: Natural Heritage Books, The Dundurn Group, 2007. ISBN 978-1-55002-759-4. 240 p., maps, b&w illus., notes, bib., index. Softbound. Cdn\$24.99; £13.99.

“Make up your mind. Don't stand on one foot; do whatever you think is best, but do it” (p. 131). Guy Houghton Blanchet's philosophy stood him in good stead for 50 years as a surveyor, though it was not easy work. The complications often came from supervising others and his interactions with institutions.

Born in 1884, Blanchet was the ninth of 11 children of a Quebec family that traces its roots back to an original French family in the new world (Finnie, 1985). Gwyneth Hoyle's biography of Blanchet places the man firmly in his times, usually in context, and always on the snowshoes, in the canoe, and along the survey line that were his life for five decades. Meticulously crafted, this detailed review of the life of a little-known northern legend illuminates the individual as well as the type.

By his early twenties, Blanchet was a mining engineer in the Canadian West, where he was to work for most of his life. He inhabited that slice of Canadian history between the explorers and the settlers, helping to draw the invisible lines across the land that forever changed the landscape

and made way for a type of progress he questioned. For example, while he was staying in an igloo with a family, the seal oil lamp flickered out as they were settling in for the night. “How natural strange situations really are,” he wrote, “when you yourself are part of them” (p. 119). He ventured time and again “into a new area of unmapped country” (p. 81) for the Topographical Survey of Canada, eventually earning the title of Dominion Land Surveyor.

“The word ‘impossible’ was unacceptable both to the office in Ottawa, and to Blanchet,” Hoyle (p. 52) writes, and this is the book’s central theme. Blanchet survived where Hornby died. Several encounters between the men show that they both danced with danger and lived by the maxim that “the impossible just took a bit longer.” As an accompanying story to Hornby’s, this book has great merit. But Blanchet’s luck held and his acts of stamina, bravery, and bullheadedness are no less legendary than Hornby’s, except that he kept returning from yet another impossible venture with such regularity that his exploits became routine.

This biography provides a detailed account of life on a survey crew. Blanchet was always called “Chief”: the title distanced him from his men enough to allow him to oversee “a harmonious camp” (p. 52). He always worked harder than his men and yet had to fire only one worker. In 1944, however, three summer employees from Edmonton quit his employ because of the heat, bugs, monotonous food, and the “Chief’s” leadership style. One of them wrote that Blanchet was “aloof” and did not mix with any of the crew, white or Native. “There was no racial discrimination but neither was there any human compassion. He was a hard man to work for” (p. 201).

Blanchet was also a hard man to be. A loner by temperament, he was almost always responsible for a crew of 20 or more men. Often weary at the end of long, hard days, he retreated to his private tent where his reading of classics and philosophy gave him solace. His journal writing gave him an outlet for his thoughts and provided his biographer excellent source material.

Always a detailed strategist and willing to accept any new technology to accomplish a task, he was thwarted many times by the unreliable nature of early airplanes and nearly lost his life more than once in the rickety contraptions that took many lives in the early years of northern aviation.

A married man with a wife to support—he and Eileen had no children—he was one of the 442 civil servants who lost his job on May 1, 1931 as part of government cutbacks. Though he was 47 years old and had an excellent reputation, he was unemployed for most of the next four years.

Many unusual twists and turns fill the pages of this biography, including his trip to New Zealand in 1931, without his wife, before he signed up for war service. “Change in mental attitude,” he wrote of his disgust with the military while in training, “impatience with youth and stupidity, and an increasing intolerance” (p. 166). He had lied about his age—lopping off 10 years—but was caught out and rejected from military service because of a heart

murmur. Just as well, because Blanchet became involved with surveying the Canol pipeline route, which delivered outrageously expensive oil from Fort Norman on the Mackenzie River to Whitehorse for just a few months during World War II. Hoyle could have expanded on this project’s futility. “[I] always thought more of the work than my job,” (p. 187) Blanchet wrote while embroiled in conflict with the American generals in charge of the Canol project—know-it-alls who made uneducated decisions that challenged the alignment of Blanchet’s carefully researched route.

As always, Blanchet was happiest when stomping through the bush. His career ended on a high point in the 1950s, when he surveyed the route for the Trans Mountain Pipeline, a line that continues to move oil through the mountains to this day. He settled down to a writing life on Vancouver Island in his later years—though he had already been publishing articles and book reviews in *The Beaver* magazine since the 1930s. Spurred on by the success of his first book, *Search in the North* (1960), he began writing his autobiography, but he died of a heart attack in 1966 before completing his work.

“Westerners are Barbarians,” (p. 215) Blanchet wrote while on a solo holiday in Japan during his retirement. Like his friend and neighbour R.M. Patterson, Blanchet seemed most at home when seeking adventure—or at least away from the crowd that represented the encroaching civilization. And yet, a relative said that Blanchet had “a smile like the sun coming out” (p. 216). Hoyle concludes that Blanchet was “a man of contrasts,” and his excellent biography introduces us to parts of the complex outer and inner life of a man who epitomized the northern surveyor.

#### REFERENCES

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OWLS OF THE UNITED STATES AND CANADA: A COMPLETE GUIDE TO THEIR BIOLOGY AND BEHAVIOR. By WAYNE LYNCH. Vancouver, British Columbia: UBC Press and Baltimore, Maryland: Johns Hopkins University Press, 2007. ISBN 978-0-7748-1459-1. xxii + 242 p., 19 maps, 2 tables, 208 colour photos, bib., index. Hardbound. Cdn\$44.95.

This book warrants only superlatives. Wayne Lynch, a doctor who gave up medicine to pursue his passion for wildlife photography, has made wise use of his scientific