

THE MAKING OF AN EXPLORER: GEORGE HUBERT WILKINS AND THE CANADIAN ARCTIC EXPEDITION 1913–1916. By STUART E. JENNESS. Montreal: McGill-Queen's University Press, 2005. ISBN 0-7735-2798-2. xxii + 418 p., maps, b&w illus., appendices, notes. Hardbound. Cdn\$49.95.

Hubert Wilkins, a young Australian photographer, was seconded by the Gaumont Company to Vilhjalmur Stefansson's Canadian Arctic Expedition of 1913–16 as official photographer. Having sailed north on board *Karluk*, he joined the group led by Stefansson that left the ship to go ashore on a hunting trip after *Karluk* became beset in the ice off the North Slope. Hence he did not experience the subsequent sinking of that ship or the dramas and hardships of the survivors who made it to Ostrov Vrangelya.

Instead, Wilkins traveled widely on the mainland coast, from Point Barrow to Herschel Island. Then, having been appointed Deputy Expedition Leader, he took the schooner *Mary Sachs* north to Sachs Harbour on Banks Island, in search of Stefansson, who had set off across the ice of the Beaufort Sea to demonstrate that one could live off the land (or the sea ice). Subsequently Wilkins reached the headquarters of the Southern Party of the expedition, led by Dr. Rudolph Anderson, at Bernard Harbour.

Jenness's book is largely based on Wilkins' diaries (housed in the Stefansson Collection, Dartmouth College, Hanover, New Hampshire), from which he quotes extensively. Apart from providing a detailed picture of Wilkins' involvement in Stefansson's expedition, the book stresses the role that these experiences played in the shaping of Wilkins' character and in his accumulation of skills that later stood him in good stead in what would become a life-long career as an explorer. Highlights of that career included his flight across the North Pole with pilot Ben Eielson from Point Barrow to Svalbard in 1928, his flight from Deception Island to and around the Antarctic Peninsula, also in 1928, and his attempt to reach the North Pole beneath the ice, in the submarine *Nautilus*, in 1931, an attempt that mechanical trouble forced him to abandon at 82° 15' N.

One of the unusual features of the Canadian Arctic Expedition is that, while a whole range of scientific reports emerged from it, no general narrative of the activities of the expedition was ever published. Stefansson's book, *The Friendly Arctic* (1921), to a degree fills that gap with regard to the Northern Party, but even there details are commonly quite meagre, while until recently there was no useful account of the activities of the Southern Party. Earlier Dr. Jenness went a long way to rectifying this situation when he published the diary of his father, Dr. Diamond Jenness, anthropologist with the Southern Party of the Canadian Arctic Expedition (Jenness, 1991). Now, through this account of Wilkins' activities with the expedition, he has made a further invaluable contribution to the history of the Canadian Arctic Expedition, one which throws a great deal of light on both parties of the expedition,

and especially on the considerable frictions that developed between the two parties and particularly between Dr. Rudolph Anderson, leader of the Southern Party, and Stefansson. It also throws considerable useful light on the whaling/trapping economy of the North Slope of Alaska and the Canadian Western Arctic at this period, and on the various Inuit groups. It also provides us with a candid picture of the erratic, self-serving behaviour of Stefansson as expedition leader, as seen by somebody close to him. From this viewpoint, it is an invaluable contribution to the literature on the complex character of Vilhjalmur Stefansson.

The text is wonderfully enhanced by the inclusion of numerous excellent, detailed maps relating to every stage of Wilkins' travels, and by an impressive array of Wilkins' photographs. As an important addition to the literature on the Canadian Arctic Expedition, this book will appeal to the specialist Arctic historian, but the general reader will also find it fascinating as the account of a formative period in the career of a multi-faceted polar explorer.

REFERENCES

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 STEFANSSON, V. 1921. The friendly Arctic: The story of five years in polar regions. New York: Macmillan. 784 p.

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DRIFT STATION: ARCTIC OUTPOSTS OF SUPER-POWER SCIENCE. By WILLIAM F. ALTHOFF. Dulles, Virginia: Potomac Books, Inc. ISBN 978-1-57488-771-6. xiv + 355 p., map., b&w illus., appendices, notes, glossary, selected bib., index. Hardbound. US\$39.95.

Drift stations are camps placed on sea-ice floes or ice islands (the tabular icebergs that calve from the ice shelves of northernmost Ellesmere Island, Nunavut, Canada), or occasionally aboard ships placed voluntarily, or not, in the pack ice. They take advantage of the ice cover as a platform for scientific studies of the ice itself, the atmosphere above, and the ocean and seafloor below. Drift stations are primarily associated with the Arctic Ocean, but a few have been used in Antarctica. Some drift stations, typically those supporting classified research, achieve their mission in a matter of weeks. Other drift stations remain open for months to years, using the patterns of large-scale ice

movement to facilitate long-term, primarily non-classified studies over broad areas.

This book is described in the preface as “a history of ice stations from which scientific research has been conducted in the Arctic Ocean” (p. ix). It begins with the three-year (1893–96) drift of the *Fram*, on an expedition inspired and led by Fridtjof Nansen, who reasoned that there were scientific lessons to be learned from the *Jeannette* disaster of the early 1880s. After the *Fram* success, it was some time before scientists voluntarily returned to the ice, this time with the ground-breaking Soviet *Severnnyy Polyus-1* (North Pole-1) or SP-1 expedition of 1937–38. Interrupted by the Second World War, Soviet drift station operations resumed after the war ended, and the first American drift station opened in 1950, early in the Cold War. After the end of the Cold War and the demise of the Soviet Union, drift station operations by the new Russia ceased until SP-32 in 2003–04. All the while, the United States continued to operate mostly short-term camps supporting underwater acoustics research related to submarine operations. This book focuses primarily on the Soviet/Russian-American rivalry in the Arctic Ocean as represented by their drift stations.

My association with Arctic drift stations began in April 1983, when Harold Serson, Gerald Holdsworth, two Bradley Air Service pilots, and I were the first to discover the ice island that subsequently became Canada’s only ice island drift station, known as “Hobson’s Choice.” At the time, I was a second-year doctoral student studying the structure and growth of the Ellesmere ice shelves, and it was exciting, to say the least, to be the co-discoverer of an ice island and its source. I was fortunate to return to the ice shelves and Hobson’s Choice on numerous occasions between 1983 and 1987. The author visited Hobson’s Choice at about the time it began its drift out of the Arctic Ocean and into the channels of the Queen Elizabeth Islands, thus thwarting Canadian scientists’ plans.

One can’t have studied the Ellesmere ice shelves and ice islands without being aware of some of the history of drift stations, yet also feeling certain that much more would be learned once the Soviet side of the story became available. Consequently, I gladly accepted the invitation to review this book, which promised previously unavailable information about Soviet drift stations and some substance to add to stories I had heard about U.S. and Canadian drift stations. For example, I knew of a murder at ice island T-3 in summer 1970, but I was not aware of the legal conundrum presented by a homicide at a U.S. station operated by the University of Alaska under contract to the U.S. Navy in waters claimed by Canada, nor did I know that the accused was an employee of the General Motors Defense Research Laboratories. When the news reached him in Washington, DC, recalls Admiral C.O. Holmquist, Chief of Naval Research at the time, “I knew it was going to be a long day” (p. 188).

To write this, the first “full written history” (p. x) of drift stations, the author corresponded with many individuals in

Canada, the United States and, most importantly, the former Soviet Union. In particular, he visited the Arctic and Antarctic Research Institute in St. Petersburg, the centre of Soviet, now Russian, polar science, and home to the *polyarniks* (polar researchers). They collectively logged over 37 years of nearly continuous presence on the Arctic pack ice, and occasionally ice islands, between spring 1954, when SP-3 opened, and summer 1991, when SP-31 closed as the dissolution of the Soviet Union approached. The logistical achievement alone is impressive, but the SP stations also amassed a large amount of basic scientific data that continues to yield dividends today as environmental change continues in the Arctic.

The author clearly admires the Soviets’ drift station achievements, and concludes (p. 262) that “The programs and missions of the United States in the North may appear desultory and episodic by comparison with Russian programs and persistence—intermittent, opportunistic bursts of furious activity interspersed by spells of relative quiescence. The Soviet Union (to exaggerate slightly) has *operated* atop the canopy whereas the United States has *experimented*.” I think this is a fair statement that is supported by the evidence; the United States and Canada simply did not match the continuous presence and scale of the operations of the Soviets, who often operated not one but two drift stations, and occasionally three, at once: for example, SP-4, -5 and -6 were in simultaneous operation from April 1955 to October 1956. In contrast, most American and Canadian drift stations have been short-lived, and rarely have two operated simultaneously.

SP-6 (ice island) subsequently operated simultaneously with SP-7 (ice floe) during the IGY (International Geophysical Year, 1957–58). IGY (the third International Polar Year) was a particularly busy time for drift stations; the United States established station ALPHA on an ice floe in March 1957, and then re-occupied ice island T-3 (station BRAVO) in March 1958. T-3 was also known as “Fletcher’s ice island” for Colonel Joe Fletcher (U.S. Air Force), who was among its discoverers in 1950 and led the three-man team that established the first station on it in March 1952. Fletcher is described as “an opinionated, dedicated and enthusiastic officer capable of total immersion in a project. His advocacy and zeal would realize the first drifting research station for the United States” (p. 75). Fletcher is just one of many individuals described and quoted in this book, for the history of the drift stations would be incomplete without mention of the many people, and not just scientists, who ensured their operational and scientific success.

It is appropriate that this book should have been published in 2007, the beginning of the fourth International Polar Year, as it is a useful contribution to the history of Arctic science. It contains much information not previously available to many people outside the former Soviet Union, and it is well illustrated, with many photographs from Russian, American, and Canadian sources. By and large I was not disappointed by this fascinating account of

the men (and a few women) and machines behind the drift stations on either side of the geographic and ideological divides in the Arctic.

I recommend the book, albeit with a few caveats. This is a popular history. Anyone looking for analysis and deep insight into superpower science in the Arctic will be disappointed; the book does not offer much detail about the many different scientific activities at drift stations, the scientific questions that were being addressed, the scientific and political rationale, the methods used and results obtained, and the immediate and longer-term significance of the data. The book would have benefited from the services of a good editor, as the prose is often turgid and repetitive. Rather than letting the facts speak for themselves, the author sometimes tries too hard to inject a sense of adventure and excitement into the story. I grew tired of the overuse of the image of drift stations as rafts, particularly as rafting has a specific meaning in the context of sea-ice dynamics and mechanical thickening. There are avoidable errors. For example, the Polar Continental Shelf Project is first described (p. xi), correctly, as an agency within Energy, Mines and Resources Canada (Natural Resources Canada since 1995), but later (p. 180) incorrectly, as part of Environment Canada.

Notwithstanding these objections, polar history enthusiasts will want to add this book to their collections. So, too, might Arctic (and perhaps even Antarctic) researchers. It is not a textbook, but university professors in the Arctic natural and social sciences could recommend it to their graduate students to broaden their horizons and place their studies in a wider context.

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A COMPLETE GUIDE TO ARCTIC WILDLIFE. By RICHARD SALE. Richmond Hill: Firefly Books Limited, 2006. ISBN 978-1-55407-178-4. 464 p., maps, colour illus., colour plates, b&w plate, index. Hardbound. Cdn or US\$49.95.

This book by Richard Sale, with color photographs by Per Michelsen and the author, is meant to be “a celebration of the Arctic” (p. 5). It sets out to describe, in a single volume, the entire Arctic—its geology, climate, habitats, adaptations and speciation, and sensitivity to human activities. It’s also meant to be a field guide to the common birds and mammals of the Arctic, as well as a guide for visitors. The author is an experienced writer and Arctic traveler, with several other books and articles to his credit (e.g., Sale, 2002; Potapov and Sale, 2005).

The introduction begins with an interesting discussion of alternative definitions of the Arctic based on (1) the positions of the sun on the vernal and autumnal equinoxes and the summer and winter solstices, (2) the locations of various polar water masses, (3) the extent of sea ice in the North, (4) the approximate location of the timberline, i.e., the northern limit of tree growth, (5) a measure of annual incident solar energy per unit area, (6) the 10°C (50°F) summer isotherm, and (6) a modified version of the 10°C summer isotherm that considers the mean temperature during the coldest winter month. The author adopts (p. 8) the modified 10°C summer isotherm definition as a “starting point,” with exceptions made for some species and circumstances described later in the book.

The sections on Arctic geology and climate are current and informative. The discussions on human occupation, habitats, adaptations for Arctic survival, speciation and biogeography, and the fragility of the Arctic make up the remainder of the introduction and set the stage for the field guides to Arctic birds and mammals, which comprise the remainder of the book.

The field guides are preceded by a concise “how-to-use” section that discusses how the accounts of each species are organized. The accounts themselves have subsections on identification, confusion species, size, voice, distribution, diet, breeding, and taxonomy and geographical variation. Another subsection describes the color plates associated with the species accounts and summarizes abbreviations that designate age and plumage or pelage for each species.

The remaining 400 pages consist of the species accounts, which are generally grouped by taxonomic family. General information is given about the various species for each family, and thereafter one to two pages are allocated for each bird or mammal species. The book has a distinctive European flavor, but care is taken that both New and Old World terminology/taxonomy is used. Each species account consists of text and a distribution map that shows the combined breeding and over-wintering range for the species.

The six-page visitor’s guide to the Arctic gives an excellent general summary of the interesting features of Iceland, Jan Mayen, Svalbard, Bear Island, Fennoscandia, Russia, Alaska, Canada, and Greenland. This section describes the physical environment, fauna, accessibility, climate and weather patterns, and travel regulations and restrictions.

The three-page index gives common and alternative common names, as well as scientific names of species with “full entries” in the field guides. Place names and topics covered in the introduction are not included in the index. There are no literature citations in the text, and there is no bibliography or reference list at the end of the book.

A book of this size and complexity that did not have a few omissions, typographical errors, and mistakes would be surprising; I found a few worth mentioning. The “pale-bellied black goose” illustrated in Plate 4 is actually a pale-bellied brant goose. The “saxifrage” depicted on page 33 is not a saxifrage, but moss campion, a member of the