CARIBOU HERDS OF NORTHWEST ALASKA 1850–2000. By ERNEST S. BURCH, JR. Fairbanks: University of Alaska Press, 2012. ISBN 978-1-60223-178-8. xix + 203 p., maps, b&w illus., works cited, index. Hardbound, US\$45.00; Softbound, US\$29.95; e-book, US\$29.95.

"The wolves did it"! Ernest ("Tiger") Burch has written an intriguing detective story about the dynamics of caribou populations in Northwest Alaska during the last 160 years. Burch boldly identifies the "perpetrators" responsible for the fall and marshaled rise of caribou into the current distinctive herds. He has collected a substantial body of evidence to support his indictments, but unfortunately and sadly, Tiger died before he could argue his case before the jury.

In his book, Tiger Burch gathers information from a diversity of sources to create a history and speculate about why caribou and human populations fluctuate through time and move across landscapes of Northwest Alaska. To create a dynamic caribou herd distribution map of Northwest Alaska in the mid 19th to the 20th century, Burch used reports from explorers, reindeer agents, interviews with native elders, and for the later years, reports from wildlife biologists. He theorizes that major caribou populations were distributed across the region in distinct herds in a configuration very similar to the present one. Nevertheless, he intrepidly uses early explorer reports and oral histories of native elders to speculate about the existence of three previously unrecognized satellite herds that disappeared because of human harvest and never reappeared because of wolf predation. The book makes a significant contribution to Alaskan history, the social sciences, and human and wildlife ecology. Burch has teased out information and data from obscure sources to weave a story that likely no one but he could tell. One is impressed with the tenacity, courage, and imagination it must have taken to write this book.

The book is a short read, only five chapters, because Burch died before completing the manuscript. The editors should be commended for providing the impetus to publish the unfinished manuscript with little speculative editing. The context in which the book is written and a tribute to Burch's significant contribution to northern studies are provided by an informative foreword, preface, and postscripts. In a way, the unfinished nature of the book encourages more reader engagement. Burch definitely sticks his neck out with some provocative hypotheses: that fluctuation and emigration of native Alaskan populations vary according to caribou abundance; that novel historical caribou herds with unfamiliar calving grounds formerly existed; and that humans and wolves are the major drivers of caribou numbers and distribution. It is unlikely that any historian, anthropologist, area resident, or biologist has read the book without an increased level of agitation: either a new awareness or vehement disagreement. On reading the book, one is immediately inclined to organize talking points for a rigorous debate with Burch, but then remembers that he is no longer with us and we are left on our own to mull over the book.

However, this is a book of theoretical history. Burch uses written and oral observations of presence and absence of caribou in localized vicinities to estimate herd abundance, and in many cases, he uses very few observations. It will be difficult or impossible to corroborate or counter Burch's premises of caribou distribution around the turn of the 19th to the 20th century because the cohort of native elders who provided his source material is no longer alive. Caribou are mobile and whimsical; often they are seen in the tens of thousands in a location one day and gone the next. Although caribou demonstrate fidelity to regions, the year-to-year variation in concentrated calving areas may be hundreds of miles. Caribou may not return to a specific calving area even though the overall population is expanding. Burch's "hypotheses" are based on these observations. In his search through oral histories of Alaskan natives and explorer reports, he gives the most weight to observations made during spring and early summer to estimate caribou abundance and distribution, particularly continuous use of calving grounds. Locating ephemeral caribou would be difficult during that time because rivers swollen with snowmelt limit cross-country foot travel. Even today, with the technologies of radio-collars, aircraft, and satellite surveillance, it is not easy to estimate caribou population trends.

It is unfortunate that Burch died before completing the book. Several proposed chapters were never written, most importantly the Summary and Conclusions chapter, and he likely would have polished the chapters in draft. One gets the impression on reading Chapters 1, 4, and 5 that Burch believed the welfare and emigration patterns of human populations of Northwest Alaska during the 19th and early 20th century were exclusively tied to caribou. This may not have been the case for some communities, especially those located on the coast, where marine mammals and fish were the principal sources of food and clothing Today, marine mammals and fish are the primary components of the subsistence harvest in coastal villages on the Seward Peninsula, while caribou are taken only opportunistically even though the current population of the Western Arctic caribou herd is high.

In Chapters 2 and 3, Burch gives a good review of the natural histories of caribou and reindeer and how predation, particularly by wolves, influences *Rangifer* populations. Nevertheless, the extensiveness of his references and scope of his discussion are somewhat limited with regard to the nuances of human, *Rangifer*, and wolf interaction. Reindeer, through the domestication process, have become distinct from caribou, with morphological, behavioral, physiological, and genetic differences. The two grazing systems are distinct because the *Rangifer* subspecies respond very differently to environmental and human factors. High predator populations probably had widespread consequences because even though reindeer were available, wolves would likely not abandon killing and eating caribou, as is happening today on the Seward Peninsula. Burch may

have been planning to expand the discussion of these topics upon finishing the book, but we, regrettably, have lost the opportunity for further discourse.

The maps Burch created to demonstrate human and caribou distributions and complement the text are clear and detailed enough to orient oneself in Northwest Alaska. The map legends could have been in a larger font so that readers, particularly older readers, could more easily discern the scale of caribou distributions across a vast landscape. The photos of human and *Rangifer* activities contribute to the historical setting of the book. More photos would have been a treat, but the spectacular panoramic photo on the back cover, which shows a large concentration of caribou, in itself justifies purchasing the book.

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THE LAST VIKING: THE LIFE OF ROALD AMUND-SEN. By STEPHEN R. BOWN. Vancouver and Toronto: Douglas & McIntyre, 2012. ISBN 978-1-55365-937-2. xxii + 356 p., maps, b&w illus., note on sources, selected bib., index. Hardbound. Cdn\$32.95.

During the summer of 2012, a Norwegian crew was busy planning the salvage of the remains of Roald Amundsen's former expedition vessel, *Maud*, from the freezing waters of Cambridge Bay on the south coast of Victoria Island. Making up for its ignoble final use as a storage place and telegraph station for the Hudson's Bay Company, the Norwegian government had secured rights to bring the old wooden vessel home to its birthplace in Norway. The salvage team members may have reflected on the fact that in the fall of 1905, *Maud*'s original owner had skippered his first wooden vessel, *Gjøa*, through those same waters on the first successful navigation of the Northwest Passage.

Roald Engelbregt Gravning Amundsen is the subject of Stephen R. Bown's latest book, a biography of one of the most impressive explorers of the polar regions. As a student of Arctic exploration, I was curious to read this book, wondering what more could be revealed about Roald Amundsen that had not come to light in other publications, including his autobiography (1927) and Tor Bomann-Larsen's Norwegian biography (1995).

In the prologue, Bown catches the reader's attention by describing the somewhat absurd vision of an Italian flag and fascist standard celebrating the attainment of General Umberto Nobile's flight over the North Pole in the airship *Italia* in 1928. The subsequent crash of the airship led to a massive international rescue effort and set the stage for Roald Amundsen's final entry into the history books as he

ventured out on a hastily conceived and hazardous rescue flight. In Part One, Bown uses a similar approach to fire the reader's imagination by opening the first chapter with a scene of Amundsen and his men scurrying onboard their single-masted wooden vessel,  $Gj\emptyset a$ , in June 1903. They were taking a hasty leave of Christiania Fjord (now Oslo Fjord), with creditors closing in, trying unsuccessfully to stop what became an epic conquest of the Northwest Passage.

Some people are born to a life of adventure, or so it seems. A distaste for the ordinary and a hankering for testing boundaries are in their nature. In that way, Amundsen reminds me of his contemporary Danish Arctic explorer and adventurer, Einar Mikkelsen. Amundsen grew up in a country that after centuries of Danish domination simply slipped into Swedish hands and had yet to experience its own sovereign status. The author describes a young man whose scholastic ambitions were promoted mostly by his mother and whose interest in learning English led to a fascination with the fate of Sir John Franklin and the commander's fatal search for the Northwest Passage.

One man in particular provided Amundsen with exceptional examples of exploration daring: the scientist, explorer and diplomat, Fridtjof Nansen, who in 1888 led the first crossing of Greenland's ice cap by skis and sleds. In the following two chapters, the author describes other polar events that shaped Amundsen's future expedition life. In 1896, Nansen and Hjalmar Johansen returned to great jubilation in Norway after spending a winter in a hovel they built on Franz Josef Land. The two men had left their ship *Fram* during its slow ice drift over the Polar Basin, and many had given them up for dead.

The following year Amundsen joined the Belgian Antarctic expedition under the leadership of Adrien de Gerlache. The expedition was the first to winter in the Antarctic ice pack, an experience that taught Amundsen much about how isolation and dietary deficiencies affect both the minds and bodies of expedition members. One of his shipmates was Dr. Frederik Cook, a man who had many things to teach the eager Norwegian about survival and travel in polar regions.

In chapters 4 and 5, Bown takes the reader back to the hasty departure on  $Gj \omega a$  and the successful "conquest" of the Northwest Passage in the 70-foot, former herring fishing vessel. In a small bay on the southeast coast of King William Island, the seven men spent two winters before proceeding westward. Amundsen's keen observation of the neighbouring Netsilingmiut, their igloo building, winter clothing, and use of dog sled transportation served him well during later expeditions.

Part Two, chapters 6 to 9, is devoted to Amundsen's daring and successful conquest of the South Pole, a feat considered by most people as his most masterful accomplishment. The story has been told by many, scrutinized by many more, and received with acclaim or contempt, depending on the nationality of the reader. Bown presents the sequence of events, public response, and political reaction with sensible