find their cultural values and languages threatened or displaced by a more powerful group.

Kasten has done an excellent job of accommodating the variety of approaches to bicultural education in the north, and this book is extremely valuable for those working in this field. (Patrick Moore, 1005 Fir Street, Whitehorse, Yukon Y1A 4B7, Canada.)

FRANK WILD. Leif Mills. 1999. Whitby: Caedmon of Whitby. xiv + 343 p, illustrated, hard cover. ISBN 0-905355-48-2. £25.50.

Although the names most frequently associated with the 'Heroic Age' of Antarctic exploration are Roald Amundsen, Robert Falcon Scott, Ernest Shackleton, and Douglas Mawson, none of these renowned explorers spent as much time in the far south nor were as experienced there as was a short, physically powerful, and mentally determined Yorkshireman, Frank Wild. The only man to have served on expeditions under each of the great native-English-speaking triumvirate of Scott, Shackleton, and Mawson, Wild was in the unique position of being able to judge all three leaders from personal experience. So a biography of him — sadly lacking in the past — has been long hoped for and looked forward to.

Born in 1873, Wild joined the Merchant Navy at 16, and by the year 1900 had sailed to Australia, New Zealand, Japan, India, China, and South Africa, amongst other destinations. In 1900 he left the merchant fleet and joined the Royal Navy. The next year he was selected for a position as an able-bodied seaman on *Discovery* on Scott's first expedition, 1901–04, on which Wild made lasting friendships with Shackleton and Ernest Joyce.

Having gained a taste for the far south, Wild quickly volunteered when Shackleton announced his British Antarctic Expedition, and in 1907 he was lent to that expedition by the Royal Navy, with his costs to be borne on the books of HMS *President* for the period of his service. Wild was officially in charge of stores on Shackleton's expedition on *Nimrod*, and he and Joyce were also in charge of printing *Aurora Australis*, the first book published in the Antarctic. Wild then proved his stamina and determination as one of four men — with Shackleton, Eric Marshall, and Jameson Adams — who made the magnificent journey across the Ross Ice Shelf, up the Beardmore Glacier to the Polar Plateau, and to a farthest south of but 97 miles short of the Pole.

Wild now had gained an Antarctic reputation of his own, and thus he was selected by Mawson to serve as the leader of Western Base party on Mawson's Australasian Antarctic Expedition, 1911–14. Dropped off by Aurora in a little-known part of the continent, and in charge of a party of Antarctic novices, Wild made his first major impact as a true leader. Guided by Wild's experience and skills, his group of youngsters made six major sledge journeys, mapped 350 miles of coastline, and made regular scientific observations.

Upon his return, Wild was selected as second-in-

command of Shackleton's British Trans-Antarctic Expedition. He fulfilled this role during the long period that *Endurance* was caught in the ice and then while Shackleton's party made its way to Elephant Island. He then proved himself yet again in perhaps his most trying of circumstances, when Shackleton left him in charge of the party that remained on Elephant Island while 'the Boss' and five others made their famous open-boat journey to South Georgia for help. Despite unbelievably difficult physical and mental condidtions, Wild managed to hold the party together until it was rescued by Shackleton.

After his many years in the south, Wild, like Shackleton, proved out of place when back in Europe. In 1917 he was posted to Archangel as a Royal Navy transport officer controlling the movement of British shipping in and out of that strategic port, through which the Allies attempted to provide Russia with enough supplies to keep involved in the war against Germany. After the First World War, Wild was employed by the Northern Exploration Company, leading an expedition to prospect for mineral resources on Spitsbergen as well as to forestall any German companies from entering Svalbard.

Shackleton's last Antarctic expedition was also Wild's. Selected again as number-two on the *Quest* expedition, Wild took over command when Shackleton died at South Georgia in 1922. He then made remarkable efforts to complete the vague goals of the expedition, despite multiple problems with his extremely poorly equipped ship. Wild moved to South Africa in 1923, where he lost his life's savings in an disastrous farming venture. His latter years were neither successful nor, seemingly, overly happy. He died on 19 August 1939.

Unfortunately, this book does not do great justice either to Wild's exciting life or to the significance of his role in the exploration of the Antarctic. Whether this is because of a lack of primary data available by and about Wild or because the author — a long-time union official rather than an academic — did not have the background to address many of the questions that a professional historian would have asked nor the research experience to find out where to investigate many aspects of his subject, I cannot say. But comparative questions about Wild's views of the leaders he served go unanswered, and issues of his own abilities when in overall charge of an expedition are not fully addressed. And certainly when the author does use Wild's diaries, they are frequently word for word without a great deal of in-depth interpretation or explanation. In a sense, this book is therefore simply a story of various Antarctic expeditions, with Wild just along for the ride.

Equally as disappointing as the lack of new material, is the quality of the editing of the book. It appears that the author produced a manuscript that was then moved straight into page form complete with misspellings, uncorrected punctuation, and other annoying errors.

Despite all these problems, Frank Wild remains a positive addition to the Antarctic literature, because it is the first attempt at a study of a man of significance in the

exploration of the far south. A reader will perhaps not finish the book knowing everything he wants to know about Wild, but he should be more informed than previously.

This book is obtainable by direct mail from that excellent publisher of polar books, Caedmon of Whitby (128 Upgang Lane, Whitby, North Yorkshire YO21 3JJ, United Kingdom), for £25.50 plus £3.00 packing and postage. (Beau Riffenburgh, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

## ANTARCTIC ENVIRONMENTS AND RE-SOURCES: A GEOGRAPHICAL PERSPECTIVE. James D. Hansom and John E. Gordon. 1998. Harlow: Addison Wesley Longman. xiv + 402 p, illustrated, soft cover. ISBN 0-582-08127-0. \$21.99.

In their introduction, James D. Hansom and John E. Gordon proclaim the need for a 'new' geography of Antarctica. My first reaction to this assertion was that Antarctic geography is still hardly out of diapers, so why is it that we already need a new one? Aristotle may have postulated in the sixth century BC the existence of a large southern continent, but it was not until the late eighteenth century that humans began to look for it, and only in 1820 that Bellingshausen first sighted it. The first major scientific expeditions of the 'heroic era' were launched only 100 years ago; year-round scientific observations on Antarctica did not begin until 1944 when Britain established a base at Port Lockroy. Furthermore, we had to wait until even more recently before cartographers had a complete map of the frozen continent, and even today we know little about the continent that lies below its shroud of ice. No. Antarctic geography is young.

Even so, the authors make a persuasive case for writing a geography that integrates the legacies of past exploration and exploitation with today's burgeoning growth of scientific knowledge and the environmental agenda that currently permeates all aspects of human activity in the Antarctic. In the brief span of time since man's first contact with Antarctica, we have decimated the whale stocks, over-exploited several fish stocks, and nearly exterminated several species of seals. Some 10,000 tourists now visit Antarctica every year. Major scientific discoveries have placed the Antarctic at the center of key global climate processes. Yet Antarctica is still widely regarded as Terra Australis Incognita, described as 'a pole apart,' and depicted as an unrecognizable white mass at the bottom of world maps if it is shown at all. Standing at the door to the twenty-first century, popular notions of Antarctica as a remote, icy wilderness need updating to reflect current scientific understanding of the Antarctic region as a central component of the engine that drives critical global processes.

Hansom and Gordon divide their geography into three parts. Part I describes the nature, functioning, and spatial patterns of the major physical systems and the ways they interact and influence the region's natural systems. Comprising fully half the text, this part lays the essential scientific foundation necessary to understand Antarctic environments and resources. While comprehensive in scope and uncompromising in detail, this scientific review constructively links Antarctica to the larger world in which we live through two different perspectives. The first perspective is outward-looking, examining the ways in which the geography of Antarctica's physical systems have global significance in terms of climate, heat balance, oceanic circulation, and marine nutrient cycling. The second is inward-looking, considering the potential for global phenomena such as climate change to alter the physical and biological systems of the Antarctic.

For a continent lacking traditional human settlements, writing a human geography of Antarctica might at first seem odd. Yet Antarctic resources and environments have provided the stimulus for a wide range of human activities in the region. The authors turn our attention to the human element in Part II, with chapters on Antarctic exploration, exploitation, science, and politics, and the effects of these and other human activities on Antarctic environments. Taking a historical perspective, this section examines the changing (yet remarkably similar) motives for human interest in the Antarctic, from early exploring expeditions, whaling, and sealing, to their modern counterparts of national scientific programs, tourist adventures, and marine-resource exploitation. And geopolitics remains as active today as it was yesterday, although science is now the vehicle of choice for maintaining a strategic presence on the continent, as well as for staking a claim to any future benefits from mineral or other resources that might be found.

Part III looks at past and future environmental management of the Antarctic, focusing on the various conventions, protocols, and actors within the Antarctic Treaty System (ATS). Compared with environmental management in other parts of the globe, the Antarctic Treaty Parties have been relatively foresighted in creating management regimes for seals, living marine resources, and minerals. Adoption of the Protocol on Environmental Protection has further reinforced conservation and environmental management, placing it at the core of the ATS along with peace and science. Even so, the ATS faces challenges. The explosion of Antarctic tourism is one concern. Some tour operators are from non-Treaty states and thus not legally bound to abide by its precepts. This underscores the difficulties of effectively implementing environmental management regimes in the Antarctic.

Antarctic environments and resources integrates an impressive range of geographic disciplines relevant to the Antarctic. Indeed, a stated aim of the authors was to provide, in one book, a comprehensive reference text on the key issues related to Antarctic environments and resource management. What they have in fact produced is a veritable Antarctic bibliography, boasting a 49-page reference list with some 1500 entries. Furthermore, it is packed