

a similar canoeing accident. The deaths of Grinnell's sons have no connection with the events of the 1950s barrenlands trip, but, as one might well imagine, those deaths three decades later did give Grinnell pause to rethink his own earlier experience.

This much is history, one might say, and should have no bearing on our evaluation of the artistry of the book. But it is the realization of Grinnell's 40-year struggle to tell this story of growth — and the loss that always accompanies growth — that forges the undeniable emotional link between author and reader. Writing the book had, no doubt, a crucial therapeutic effect on Grinnell. And while *A death on the barrens* adheres to few of those classical unities Aristotle lauded in Greek tragedy, the bond of humanity any reader must feel through Grinnell's troubled effort to share his loss creates a great deal of empathy in the reader. I am indeed a more complete person for having read this book, and one wonders if a book can ever achieve a higher end. (Richard C. Davis, Department of English, University of Calgary, 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada.)

THE FROZEN ECHO: GREENLAND AND THE EXPLORATION OF NORTH AMERICA, ca AD 1000–1500. Kirsten A. Seaver. 1996. Stanford: Stanford University Press. xviii + 407 p, illustrated, hard cover. ISBN 0-8047-2514-4. £40.00.

It must be stated straightaway that this work is a major achievement. The author has tackled difficult questions concerning the nature of Norse settlement in Greenland. She has also examined the relationships between those settlements and the exploration and exploitation of North America and of the North Atlantic by other Europeans, most notably the English and Portuguese. A central question is, of course, what was the cause, or what were the causes, that led to the extinction of the Greenland colonies?

The author uses a kaleidoscopic variety of sources, and approaches the questions she has set for herself from the point of view of different disciplines. The sources include historical texts, many in Scandinavian languages, and also the results of archaeological and cartographical studies. The book is divided into two parts. Firstly, there is a detailed study of North Atlantic exploration by the Norse, with an exhaustive analysis of the economic, social, and ecclesiastical conditions of the Greenland colonies. This is followed by an examination of the official and unofficial maritime efforts in the North Atlantic by, for example, the Bristol merchants and of the impact of these on Greenland. The author's central conclusion relating to the fate of the Greenland colonists is that:

...both circumstantial evidence and common sense suggest that the Greenlanders, who had so clearly taken active part in the North Atlantic economic community throughout the fifteenth century, had remained opportunists to the end and joined the early-sixteenth-century European surge toward North America.

As noted, the range and breadth of the author's sources

are breath-taking and the sheer diligence with which she has tackled them is an example to all who undertake historical study. Each of her chapters is a comprehensive analysis of its subject, and they inter-relate well. The totality of the work is a very impressive contribution on a difficult topic.

However, the book is, in some respects, poorly written. The author, in her acknowledgements, comments on the input of her editor, and one feels that the work would have had a more consistent style if the editing had been either more or less rigorous. In places, the author's approach is journalistic, and the uneasy juxtaposition of styles makes for uneven reading. Some of the writing is unfortunate. The first sentence of the acknowledgements — 'It is a truth universally acknowledged that anyone writing a book must be in need of a supportive spouse' — caused this reviewer to wince. One may wonder if the author is aware that Jane Austen was in fact single! Other examples are: 'The cresting wave of European exploration slammed onto the shores of the Americas' (page 254), and the comment that John Cabot 'would try to go Columbus one better' (page 265).

A further deficiency is the illustrations. The maps are adequate as far as they go, but it seems curious that the overall map of the North Atlantic, relevant to the entire argument of the book, is less than half a page in size and is relegated to page 215. The maps of the Greenland settlements are excellent, but the reproductions of contemporary maps and charts are on so reduced a scale as to make them of little use. The photographs of areas in the Greenland settlements, in particular those on pages 10 and 20, give little useful support to the text. Those of archaeological relics are much better and have been carefully selected.

To sum up, a worthy effort, and one that will be required reading for those with specialised interests in the period and area. However, with a more even style and consistent editing, a better book could have been produced, which might have served the needs both of specialists and of the more general reader. Sadly, this is not the book to do this. (Ian R. Stone, Tartu University, Ulikooli 18, Tartu, Estonia.)

TO THE ARCTIC BY CANOE 1819–1821: THE JOURNAL AND PAINTINGS OF ROBERT HOOD, MIDSHIPMAN WITH FRANKLIN. C. Stuart Houston (Editor). 1995. Montreal, Kingston, London, Buffalo: McGill–Queen's University Press. xxxvi + 217 p, illustrated, soft cover. ISBN 0-7735-1222-5. £13.95.

ARCTIC ORDEAL: THE JOURNAL OF JOHN RICHARDSON, SURGEON–NATURALIST WITH FRANKLIN, 1820–1822. C. Stuart Houston (Editor). 1995. Montreal, Kingston, London, Buffalo: McGill–Queen's University Press. xxxiv + 349 p, illustrated, soft cover. ISBN 0-7735-1223-3. £13.95.

Unquestionably one of the most significant exploring efforts of the nineteenth century was the Arctic Land Expedition of 1819–1822, under the command of Lieutenant John Franklin. Not only was it the first expedition to

explore large parts of the north coast of the North American mainland, its members also made detailed scientific observations and recordings and compiled extensive collections of botanical, zoological, and geological interest. The expedition also launched the career of three of the most famous and influential polar explorers of the first half of the century: Franklin, John Richardson, and George Back. And, perhaps most importantly, the extreme hardships of the journey led to tragedy and the deaths of 11 of its 20 members. These calamities were, in turn, so well-publicised that they became major factors in developing the popular images of the Arctic that flourished throughout the western world for much of the rest of the century. This despite the fact that the only first-hand published account of the expedition for a century and a half was Franklin's long and tedious *Narrative of a journey to the shores of the Polar Sea* (Franklin 1823).

Several years ago, Stuart Houston of the University of Saskatchewan completed a remarkable academic labour that had taken him more than two decades: editing, annotating, and introducing the journals and other expedition materials of the three naval officers serving under Franklin. As opposed to Franklin's book, which had been designed for reading by the British lay public, each of these journals was an official document, written without the concern of what the public might think. Thus, each of the three volumes that Houston edited opened up new vistas in understanding the expedition, not only because the use of the journals allowed differing, more personal perspectives on previously recorded events, as well as insights into the specific individuals recording those events, but because the men were at times separated and therefore were writing about different occurrences in different times. This trilogy was further increased in significance with the recent publication of Franklin's own official journals and correspondence (Davis 1995), an effort that expanded and deepened the understanding of both the expedition and its leader's perceptions.

These two volumes are the initial paperback editions of the first two volumes of Houston's masterly trio, both of which have long been out of print and have become hard-to-find and very expensive commodities. Released following the publication of Houston's volume on the expedition materials of George Back (Houston 1994), and almost in sync with Davis' Franklin opus, these two books allow polar scholars who were not on the scene a decade or two ago to complete the cycle of primary publications about the Arctic Land Expedition.

To the Arctic by canoe records the journal entries of Midshipman Robert Hood, an astute observer of both nature and mankind, and a very talented artist as well. Unfortunately, Hood's writings — which showed an impressive understanding not only of his naval colleagues but of North American native peoples and their relationships to both their environment and the steadily encroaching onslaught of men of European descent — ended prematurely, because he was killed by a voyageur on the return south from the Arctic coast. Houston has combined

Hood's journals with extensive background information, annotation, and commentary on Hood's paintings, a number of which are reproduced in the book.

Arctic ordeal — presenting the journal of Richardson, the expedition naturalist — is a more involved work, as it required not only a detailed introduction and careful commentary on the journal, but extensive annotation about Richardson's many and varied scientific observations, including those on geology, botany, birds, and land and water wildlife. However, by carefully editing together Richardson's journals and his official report, Houston has managed, despite his attention to historical accuracy and the presentation of a mass of scientific detail, to make the book flow with the excitement usually reserved for a less scholarly publication.

These two books legitimately received extensive praise when they were first published. Now that the final of the three works has also made a positive impact on polar community, those who value polar scholarship should be grateful to McGill-Queen's for making the first two accessible again. (Beau Riffenburgh, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

References

- Davis, R.C. (editor). 1995. *Sir John Franklin's journals and correspondence: the first Arctic Land Expedition, 1819–1822*. Toronto: The Champlain Society.
- Franklin, J. 1823. *Narrative of a journey to the shores of the Polar Sea in the years 1819, 20, 21, and 22*. London: John Murray.
- Houston, C.S. (editor). 1994. *Arctic artist: the journal and paintings of George Back, midshipman with Franklin*. Montreal and Kingston: McGill-Queen's University Press.

PAST GLACIAL ENVIRONMENTS: SEDIMENTS, FORMS AND TECHNIQUES. John Menzies (Editor). 1996. Oxford: Butterworth Heinemann. xxiv + 598 p, illustrated, soft cover. ISBN 0-7506-2352-7. £40.00.

Past glacial environments represents an attempt to summarise what is currently understood about the various aspects of glacial geology with respect to the Pleistocene and pre-Pleistocene glaciations. The book consists of 17 chapters that have been written (and co-written) by 18 contributors. Subject matter varies widely, from sedimentary analysis of glacial geology, to descriptions of laboratory techniques used to make such analysis possible. The volume is edited by John Menzies and is intended for use as an undergraduate-level text book. It is therefore assumed that the reader possesses some previous knowledge about glaciology and glacial-geology.

This text book claims to offer a great deal. There is certainly a place in the market for an all-encompassing undergraduate text relating to the glacial-geology of ice-age activity. However, after initial examination of the book, one becomes quickly disappointed with it. The main reason for this is that it has no obvious structure. Certainly the book has an 'aims and objectives' section at the start,