

order to effect sales. None of the extracts has a specific reference, although there is a list of sources, and there is no index, which is always tiresome. The maps — of the North Polar region, the Ellesmere Island region, Zemlya Frantsa-Iosifa, and Svalbard — are taken from those that appeared in Holland's encyclopaedia, save that the place names have been, where necessary, anglicised. There are also one or two minor slips. According to Holland's encyclopaedia, the leader of the British 1818 expedition toward the North Pole was indeed David Buchan but he sailed on *Dorothea*, while his subordinate John Franklin sailed on *Trent*, not the other way round, as is indicated. The complements of the ships also differ from those quoted in Holland's encyclopaedia. And mention is made of Horatio Nelson's famous incident with the bear, and there is a quotation from Southey's biography of Nelson, but this work is not included in the list of sources.

The presentation of the book is attractive and of a much higher quality than would be suggested by the price. The illustrations are well chosen to inspire the interest of the reader who might casually flip through the work in a bookshop. The dust jacket is very well designed, using the well-known picture of *Fram* frozen in the polar ice on the front and a suitably robust one of Peary on the rear.

To conclude, the book demonstrates that established experts can produce works that will attract the attention of a non-expert reader, hold that attention by careful juxtaposition of original text and inserted comment, and, one hopes, inspire further reading in the subject. At all events, this book is very much more to be welcomed as an introduction to Arctic exploration than some of the recent popular productions by authors whose actual knowledge of the subject is at most very limited. It is highly recommended. (Ian R. Stone, The Registry, University of Kent at Canterbury, Canterbury, Kent CT2 7NZ.)

THE ALASKA TRAVEL JOURNAL OF ARCHIBALD MENZIES, 1793–1794. Wallace M. Olson (Editor). 1993. Fairbanks: University of Alaska Press. xv + 247 p, illustrated, soft cover. ISBN 0-912006-70-6. \$17.50.

The Scottish surgeon Archibald Menzies served on board Captain George Vancouver's command, *Discovery*, on the great British expedition to the Pacific in the 1790s. Menzies had previously been to the Pacific, with Captain Colnett, a maritime fur trader, and was thus familiar with certain aspects of the northwest coast and its native peoples. His journal provides a 'window on the world' at that particular time, and its publication in this form is a useful addition to the literature of science and exploration. The full documentation is available in the original, in London and Australia, from whence the editor has gathered materials for this edition.

Menzies, it seems, was a matter-of-fact observer, and his 'travel journal,' as the editor classifies it, is a rather dry and unenlivened account. Even so, Menzies was thorough in his work and particularly careful in recounting that which he saw. It is clear that Vancouver and Menzies had

little in common. The captain did not endear himself to the surgeon-scientist by trying to get hold of the latter's papers and records. Menzies, however, held his ground.

It is not clear to this reviewer that this edition can be classified as 'definitive.' Surely, discussion of Vancouver's near meeting with the North West Company trader Alexander Mackenzie on the northwest coast in 1793 needs proper citation from the W. Kaye Lamb edition of Mackenzie's letters and journals. Moreover, Menzies' appointment to the Vancouver voyage, and his connections with the scientific circles of the day, need further examination. Menzies advised government on what trade goods the northwest Indians would consume, and, as the government was anxious to win friends among these people, its agents took his advice, as they did that of Vancouver. This book has extensive notes, many of which do not include follow-up references, and a bibliography. Of particular value is a list of the botanical collections contained in an appendix. This was a project well worth doing, and northwest coast history is the better for it. Taken together with C.F. Newcombe's *Menzies' journal of Vancouver's voyage: April to October 1792, with biographical note by J. Forsyth* (Victoria: Archives of British Columbia Memoir, 1923), we have a rather full covering of the waterfront, as it were. Much more remains to be discovered about Vancouver, his officers and men, and surgeon Menzies. This book points the way to showing the complexities of the lives of these explorers on such long-ranging expeditions. Not least, this edition brings into print a valuable journal. When Menzies' correspondence is published, and this is promised from the Natural History Museum, we will have an enlarged assessment of Menzies, his life, and times. (Barry M. Gough, Department of History, Wilfrid Laurier University, Waterloo, Ontario N2L 3C5, Canada.)

THE PHYSICS OF GLACIERS. Third edition. W.S.B. Paterson. 1994. Oxford: Elsevier Science. ix + 480 p, illustrated, soft cover. ISBN 0-08-037944-3. £25.00.

The 14 years that have passed since the publication of the second edition of *The physics of glaciers* have seen major advances in the understanding, measurement, and modelling of ice masses. So rather than simply revising one of the most-cited glaciological textbooks, W.S.B. Paterson has rewritten much of it in order to produce the long-awaited third edition.

Although the aim of the book, and the level of mathematics, remains unchanged — being appropriate for the graduate level — since both the structure of the book has been altered and much of the information is new, this edition could be considered not so much an update as a new book. The revision includes an original chapter on the deformation of water-saturated sediments at the base of glaciers, and significant chapter rewrites on the issues of basal sliding, glacier surging, glacial hydrology, and numerical modelling of ice masses. One very welcome addition is the appendix on the concepts of stress and