with a general interest in the Arctic. The first part, approximately 100 pages in length, is a background piece on arctic environments, including chapters on physiography, climates and microclimates, permafrost, soils, botany, vertebrates, and invertebrates other than Arthropods and Crustacea. To my mind this is the best, and certainly the most up-to-date, summary on arctic environments that is available. The section has its own bibliography and could easily stand alone as a separate publication.

The second part of the book (264 pages) is focused more on arthropods, but in a manner that allows easy entry for a wide range of arctic specialists. The section is particularly rich in examples of biogeographic and ecologic interest. The low diversity of the arctic biota apparently conceals a considerable degree of complexity. As Danks points out, insects are an important part of arctic food chains. Because they are the most taxonomically diverse element of the arctic biota, knowledge of their repertoire of adaptations to arctic conditions provides a better insight to the real complexity of arctic ecosystems than can be gained by study of other organisms. But this is so only if the fauna is adequately known. A thread woven throughout Danks's text concerns the problem of dealing with a partially known fauna. Only about half of the estimated arthropod fauna (4000 species) of the Arctic has been described, and some of the common groups that extend furthest north are among the most poorly known taxonomically. Any reader who questions the need for further baseline faunal and taxonomic work would be well advised to read chapter 13 on needs for future work and chapter 10.1 on difficulties of interpretation.

One chapter in Part II is an overview of arctic arthropods. It includes a synopsis of the life history and status of knowledge of each family found in tundra regions. For the non-entomologist this is an extremely valuable section. But it also points up one of the major deficiences of the book — lack of a taxonomic index. I expect that few people will read the entire book from cover to cover. A reader will more likely be looking for information on a specific group. Danks's text is peppered with examples that refer to named taxa, but without a taxonomic index, a reader will have difficulty locating the refrences to his/her target group. A subject index would also be of great help to the non-entomological reader.

Other important chapters within Part II deal with Adaptations of Northern Arthropods, Ecosystem Structure and Function, and Historical and Ecological Determinants of Distribution. It was particularly refreshing to note the balanced approach the author takes in the historical-ecological section. His statement, "The facts that underpin interpretation of historical events for arthropods are exceeded by speculations based on taxonomic and distributional evidence" is especially timely in view of the accumulating fossil record that reveals drastic changes of the North American Coleoptera fauna over the last 15 000 years.

The final section of the book (153 pages) is a checklist and will probably be of interest only to entomologists. It is similar in format to the list developed for arctic beetles by the late W.J. Brown. Brown's manuscript was widely circulated and cited by Coleoptera specialists, but unfortunately never published. At one time there were plans to publish Brown's manuscript posthumously. Danks's comprehensive checklist makes that unnecessary, but it is regrettable that Brown's seminal thinking on the subject of arctic insects was not acknowledged.

There is a tendency for books of this type to be slanted in favour of the author's particular special interest. It is a credit to Danks that this book is so evenly balanced. The organization of the text is excellent and there are few typographical errors. Many of the chapters contain brief point-by-point conclusions which provide the reader with ready clues as to where to search for specific data.

Arctic Arthropods is the latest book to be produced under the auspices of a National Museum of Natural Sciences project entitled "Biological Survey of Canada (Terrestrial Arthropods)". A companion volume to the one reviewed here is *A Bibliography of Arctic Arthropods of the Nearctic Region*, and an earlier Entomological Society of Canada Memoir dealt with the entire insect fauna of Canada. Together these three books constitute a comprehensive statement on the status and history of the northern North American fauna. Of the three, *Arctic Arthropods* is the one that will be of interest to the widest audience. Unfortunately the original press run was small, so it will probably be out of print by the time that the "wider audience" becomes fully aware of its existence.

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AN ACCOUNT OF A VOYAGE TO THE NORTH WEST COAST OF AMERICA IN 1785 & 1786. By ALEXANDER WALKER. Edited by ROBIN FISHER and J.M. BUMSTEAD. Vancouver and Toronto: Douglas and McIntyre, and Seattle: University of Washington Press, 1982. 319 p. incl. 7 maps, 7 line drawings, notes, bib., index, Appendix: "A vocabulary of the language of Nootka Sound", edited by B. Carlson, J. Thomas and F. Charlie. Hardbound. Can$24.95.

In 1786 Alexander Walker, a young ensign of the Bombay Army, participated in one of the earliest private trading voyages to the Northwest Coast of North America. Commanded by Capt. James Strange, this expedition hoped to collect scientific information and establish a permanent shore facility, as well as trade for sea otter pelts with the Indian inhabitants. Although their more grandiose plans did not come to fruition and Walker was not left on the Northwest Coast in charge of a small military garrison as originally intended, he did manage to make copious observations about the aboriginal inhabitants and their customs, particularly during a ca. one month's stay in Nootka Sound on the west coast of Vancouver Island in July 1786. Only the journals of the Cook expedition in 1778 provide an earlier, equally detailed, ethnographic account of this area. Like Cook, Strange sailed his ships north to Prince William Sound, Alaska, after their stay at Friendly Cove, where Walker collected further ethnographic data on the Chugach. In his later life as a military officer and administrator in India and St. Helena, Walker maintained his interest in what today would be clearly labelled anthropology and continued to edit and prepare his Northwest Coast manuscript for publication. Unfortunately he never finished this task and after his death in 1831 the journal lay unnoticed until its acquisition by the National Library of Scotland in 1952. Thus, its final publication in 1982 is the long overdue culmination of the effort, thought, and ambition of a man dead for over 150 years.

Walker's descriptions of the native cultures of Nootka and Prince William Sound result from one of the earliest intensive contacts with those people and should therefore represent a source of baseline data about Pacific Coast aboriginal lifeways as valuable as any that exists. As the editors, Fisher and Bumstead, point out in their introduction, anthropologists are not always noted for their effective use of primary historical documents. For archaeologists at least, an account such as Walker's ought to be as priceless a trove of new information about aboriginal culture as any assemblage of excavated tools. Anthropologists and archaeologists are prone to uncritical recitation of normative generalizations about ethnographic cultures; and one turns to documents such as Walker's with the hope of obtaining new insights or widened vistas on native cultures at time of contact, not previously integrated in standard contemporary ethnographic generalizations. In fact, it is clear that some of Walker's specific observations are of unique interest, such as his long Nootka word-list, which is one of the earliest substantial vocabularies from the Northwest Coast. This may prove of value to scholars studying rates of post-contact change in native languages, and origins of the Northwest Coast ("Chinook") trade jargon. Alaskan archaeologists may also be intrigued by Walker's detailed description of a large abandoned native village in Prince William Sound, replete with "winter" semi-subterranean houses connected by covered passages to "summer" pole-frame, thatched-roof dwellings. However, in sum one must be just a little disappointed by what seems to be little in Walker's account — of Nootka culture, at least — that is significantly new or different from already published and deeply ingrained perceptions of those people as they were at time of contact. This is not to dispute the undoubted value of Walker's work; but, in general, his overall observations simply complement and confirm those of many others from Cook to Drucker, rather than modifying or greatly amplifying them.

Walker's overall agreement with extant ethnographic generalizations about Nootka culture could be taken simply as a verification of their validity — a new voice from the past confirming that we've been exactly right all along! However, satisfaction with this unlikely state of affairs must be tempered by consideration of an apparent problem with the Walker account. That is the fact that the original diaries were lost shortly after the expedition, and the final published manuscript was reconstructed from rough notes, diligently worked and reworked as late as 1828 — i.e. up to 42 years after the actual voyage. In addition Walker was obviously inclined to scholarly endeavour and he incorporated in the final manuscript published and unpublished opinions and observations of other explorers dating as late as the 1820s. Although the contributions of others are often carefully acknowledged by Walker and in some cases he even points out how his own opinions differ, one can not help feeling that his account, as published, may be in many ways more a perception of the Northwest Coast as seen in the 1820s, near the climax of the maritime fur trade, than of that in the 1780s, during the earliest contact events. It is a great pity that his original journal could not have been published immediately after the voyage, in which case it unquestionably would have become famous as one

of the two or three most important primary descriptions of the initial contact period on the Northwest Coast. In its present "retroactive" form it mainly provides collaboration for the long-published and well known accounts of Cook, Jewett, Mozino, and others.

Perhaps the greatest source of interest in the Walker account is in the insight it gives its readers to the thoughts and reasoning of a scholarly and sensitive man of the late eighteenth and early nineteeth centuries, wrestling with questions of cultural relativism and the impact of European contact on native cultures. For instance, he laments one occasion when they forced a terrified inhabitant of Nootka on board ship to face punishment for a minor theft, saying that "...we lost a fine opportunity for establishing a character for moderation and humanity" (p.65). Later he describes the European custom of taking possession of a new land in the name of the king as "...no less ridiculous than unjust." (p.130). Walker's observational abilities and interpretive acuity, if reliably reflected in the final manuscript, were also exceptional. In two instances he comments on the presence of shell heaps as evidence of native occupation of an area — probably the first historical reference to Northwest Coast shell midden sites — and his excavation of a recent Chugach burial in Prince William Sound included observations on the layering of the grave fill. This may well be the earliest example of "archaeology" on the Northwest Coast, but the negative reaction that disturbance of the burial site caused among the native inhabitants would be no less today. Finally, Walker's speculation that the Chugach and the "Esquimaux" were culturally related, if true to his 1786 journal, would probably be one of the earliest suggestions of relationships between the people of the Gulf of Alaska and those of the High Arctic.

In sum, despite some concern about the primacy of portions of Walker's data and interpretations, his account is still a valuable contribution to the growing file of publications pertaining to the early maritime fur trade period on the Northwest Coast. Fisher and Bumstead should be commended for their scholarship in locating the manuscript and for bringing it to public light. The volume is well presented and organized and remarkably free of obvious errors in proofreading. Considering today's book prices it is a good buy for historian, anthropologist, and layman alike.

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ARCTIC BREAKTHROUGH: FRANKLIN'S EXPEDITIONS, 1819-47. By PAUL NANTON. Toronto and Vancouver: Clarke Irwin and Company, 1981. 262 p. Paperback. Can$9.95.

Close on 150 years after his death, both public and scholarly interest in Sir John Franklin seem undiminished, and may even increase with the bicentenary of his birth in 1986. Literature about him continues in an unabated stream, while he is widely commemorated afresh in the naming of places, colleges, and institutions. For example, Calgary (though it never came remotely within the orbit of his discoveries) recently named a junior high school and a shopping mall in his honour. Further, with the encouragement of the Scott Polar Research Institute and The Arctic Institute of North America, a project is now underway to edit all the journals and letters relating to the four Franklin Arctic expeditions.

Franklin's continued popularity is due in part to the lasting fascination and lingering mystery of his tragic final expedition (1845-48) and its many terrible ironies. It also derives from the renewal of arctic exploration (albeit intermittent, and for different reasons), and from concerted attempts to provide an adequate history of the Canadian north and its peoples partly as an assertion of Canadian identity.

The work under review, Paul Nanton's *Arctic Breakthrough*, is a testimony both to Franklin's renewed popularity and to the success of its author, since it is a paperback reprint of the 1970 hardcover edition. The paperback has a smaller format, though this has not made the seven black and white illustrations from the land expeditions and the facsimile of the last message from the final expedition any worse than the insufficiently clear set in the first edition. A foreword by Joseph B. MacInnis has been added and the useful bibliography updated to include such works as Roderick Owen's *The Fate of Franklin* (1978).

The bulk of Franklin scholarship seems to have been mainly concerned with the fate of the last expedition — a subject of diminishing returns, though sustained by the hope that journals may come to light in an overlooked cairn, or that the hull of one of the ships may be located, raised from the depths, and found to reveal a crucial secret. By refreshing contrast, Nanton devotes only a small fraction of space to the last expedition, totally shunning the attendant conjecture, and focuses mainly on the two somewhat neglected land expeditions which Franklin led in the 1820s. However, to give a sense of perspective and continuity, Nanton sensibly includes a brief summary of Franklin's early adventures at sea under Nelson and Captain Flinders, his period as governor of Tasmania, and salient features of his private life. There is also an Appendix containing recent evaluations of Franklin's achievements, one of them adverse, since, inevitably, no explorer can escape at least the occasional mud pie thrown by fashionably iconoclastic critics, though in this case Franklin is left with only a faint smear on his countenance.

Nanton's general approach is more that of a sympathetic chronicler and alert copy editor than of an interpretative historian. He derives his text almost exclusively from Franklin's own published account of his land expeditions, quoting from them at length verbatim, paraphrasing, or simply summarizing, all with little or no comment. On the whole, the narrative is quite well stitched together, though it is hard not to feel that Nanton could well have improved some of the climaxes by direct quotation rather than summary, even if Franklin's prose is seldom fully equal to the occasion.

Franklin shows through very clearly in the narrative, much as he does in his unpublished letters and journals. His style seems a combination of Robinson Crusoe's and Lemuel Gulliver's. Like Crusoe, he is devoted to a wealth of accurate detail combined with God-fearing wonderment and gratitude, and an overpowering belief in the superiority of the white man, in particular, an Englishman; like Gulliver, his strong sense of modesty and integrity alternates with a naive pomposity which sometimes makes him unwittingly almost a figure of satire to the modern reader. Also apparent are Franklin's unfailing care for his men, his willingness to share privation equally with them, and the fact that, while lacking the flair and imagination of a Nelson, he had the same ability to command undying loyalty and affection. With Indians, Eskimos, and *voyageurs*, Franklin can scarcely be regarded as enlightened, but by the standards of his day he was remarkably understanding, and readier to learn in this respect than most of his peers and subordinates.

One of the special pleasures of reading the narratives of the land expeditions is to see a then virtually unknown country through the fresh eyes of explorers: in particular, to feel with them the staggering impact of the first glimpse of the Rockies or of the Arctic Sea. The actual discoveries and charting of the North-West coastline, though remarkable in themselves for the period, seem secondary in interest to the description of the native peoples, for example, the Copper Indians and the Dog-Rib Indians, with the engaging character sketches that emerge of Chief Akaitcho and his brother, of the Indian princess "Green-stockings" (who, we learn from other sources, caused a heated rivalry between Back and Hood), to say nothing of the two Eskimo guides, nicknamed Augustus and Junius. Especially compelling are the gruelling descriptions of protracted starvation, with only loathsome "tripe de roche" for main sustenance, and the resulting dark tale of murder and cannibalism perpetrated by a *voyageur*, who had to be summarily executed by Richardson in self-defence. All in all, the two land expeditions, even if of limited success, were a remarkable achievement in context, and are crammed with invaluable by-products, particularly for the anthropologist and social historian.

Though the narratives are fairly easy to follow, Nanton's work has several drawbacks. As a chronicle it suffers from occasional injudicious selection and abridgement, and we are often made to rush and saunter alternately, when a uniformly brisk pace would be preferable. The almost complete lack of commentary leaves us with an imperfect understanding of some of the leading characters (for example, Richardson, Back, and Hood) or deprives us of guidance in assessing cause and effect and relative achievement. In addition, little attempt seems to have been made to include hitherto unpublished material, of which a great abundance is to be found, especially in the Scott Polar Research Institute.

It is perhaps for this reason that Franklin's first expedition to the Arctic, under Buchan in 1818, is completely but unjustifiably neglected. A minor blemish on the book is that the index is too selective to include even the lovely "Green-stockings". These reservations aside, Nanton's work does a great service in keeping Franklin before the general public and providing a good sense of an unusual and often gripping narrative of arctic exploration.

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