impact of this powerful work. On the surface, the book is an anthology of Murray-Smith's experiences on an Australian Antarctic resupply voyage aboard MV Icebird in 1985-86. Three landfalls were made, at Mawson's 1911-14 hut at Commonwealth Bay, and at Casey and Davis stations. This is not a travellers' tale which the diary structure might suggest. The reader is immediately involved in shipboard life, politics, and in Murray-Smith's interactions with companions who represent the crosssection of those involved in the Antarctic program. The descriptions and perceptions of shipboard and station politics, together with day-to-day situations, are entertaining and stimulating. The reader is skilfully drawn into personal (and at times frank) exchanges, mishaps and controversy. In addition, several press releases that Murray-Smith wrote during the voyage are dovetailed into the text as the end-product of the circumstance in which they were written. They are escapes or explorations of normal reaction to this splendid frontier.

At another level, Murray-Smith provides a lucid and frank investigation of the spirit, motives and operational sense of Australia's Antarctic program. Analyses are exposing and, with force, cut to the bone at several places. Each cut exposes a web of ideas and re-assessment. In his preface, Murray-Smith says he takes a more charitable view of shortcomings than he perceived at the time, but the published word will no doubt upset program administrators. However, Sitting on penguins is an analysis by an intelligent man whose Antarctic travel was at the request of Barry Jones, the (then) Australian Federal Government Minister responsible for the Antarctic Division, Murray-Smith knew the program's history and politics better than most involved; his target is the program's intellectual perception of Antarctica. The searching questions that vex him are relevant to other nations with Antarctic operations.

Hutchinson Australia have taken a great deal of effort to produce this book. Jan Sensberg's modern and busy sketches compliment the intensity of Murray-Smith's pen, although the combination might be too strong for some. Colour photographs of human activity, not wild-life, reinforce the human and political fabric that the author uniquely portrays. Sitting on penguins is expert writing and, together with its political, social and historical analysis, has immense literary value. It is an acquisition for all Australians with an eye on their Antarctic endeavour. In the longer term, I hope that the literary value of the book will be recognised in some formal way. (Peter L. Keage, Australian Antarctic Division, Channel Highway, Kingston, Tasmania, Australia 7050.)

ONE AUSTRALIAN'S ANTARCTIC

BREAKING THE ICE. Butler, R. Sutherland. 1988. Tring, Lion Publishing. 159 p. illustrated, hard cover. ISBN 0-7459-1189. £12.95.

Rowan Butler, a professional electronics engineer, has served with Australian National Antarctic Research

Expeditions (ANARE) since 1980. This book is an account of seasons spent at Mawson (1981-82), and Casey(1984) stations, a visit to Heard Island in 1985 on the Antarctic Division's BIOMASS Experiment (AD-BEX), and finally a trip to the Bunger Hills, Knox Coast, in 1986. Mr Butler's speciality was the setting up and servicing of automatic weather stations, but he also doubled as photographer and his professionalism in this field is exemplified throughout this well illustrated narrative. The photographs by no means eclipse the text, however, which presents a readable and exhilarating account of life on a modern Antarctic station. Daily routine has not fundamentally changed since Sir Douglas Mawson's time; the author succeeded in turning his hand to all manner of chores including scouring the latrines and acting as duty cook. His technical expertise found him frequently in the field sledging with dogs (an acknowledged favourite) or with skidoos, and on longer trips in tractor trains from whose heated cabins measurements of the ice sheet could be carried out.

The author has lurid tales to tell of the susceptibility of modern technology to the 'Antarctic factor', the dreaded jinx that plays havoc with electrical circuits and causes tractor engines to seize up. Amazingly, fatal accidents are few; heroics are not encouraged in present-day Antarctica. The nearest the author gets to being a polar hero is when he finds himself playing the part of Mertz in a production of 'The survivor', a TV film about Mawson's last famous trek in 1912, made on location. This involved some uncomfortable moments down a yawning crevasse, and the odd experience of listening to one's own burial service being preached.

Present-day Antarctic exploration has much to do with international cooperation as the good relations existing between Australian scientists and their neighbouring Russian colleagues make evident. The author quotes a message attached to a bottle of vodka left by the Russians at a cache: 'Accept our small gift please, as a symbol of friendship between Australia and Soviet people. For the peaceful world without wars'. The little note spoke volumes about Antarctica today. In conclusion, Mr Butler pays tribute in an appendix to Nella Dan, which for 85 voyages transported personnel and equipment safely between Australia and Antarctica. In December 1987 she sank off Macquarie Island greatly mourned by ANARE veterans. (H. G. R. King, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

POLITICS IN THE EASTERN ARCTIC

THE ROAD TO NUNAVUT: THE PROGRESS OF THE EASTERN ARCTIC INUIT SINCE THE SECOND WORLD WAR. Duffy, R. Q. 1988. Kingston and Montreal, McGill-Queen's University Press. 308 p, hard cover. ISBN 0-7735-0619-5. Can\$35.00.

Duffy must have spent several years in the basements and archives of government, to have produced this very thoroughly documented history of development in the eastern

Arctic. The book and its arguments rely quite heavily on quotes from correspondence, memos and reports (and Duffy has been able to find some pearls), most of them being from travellers, government employees, and observers of the arctic situation at the time. This reliance, coupled with an apparent lack of direct experience in the North, makes for somewhat questionable arguments at times, but overall the book makes very interesting reading.

Duffy traces the increasingly complicated web of government involvement in the North, with all its complications and difficulties. It started with concerns about Inuit health and the treatment of the native people by traders; it evolved, as time went by and consciousness grew in southern Canada, into concerns about and programs to do with housing, emplyment, education, economic development, political involvement. It is easy to criticise in hindsight, but Duffy's book also cannot help but illustrate how unprepared Canada was when it came to administering the North; ignorance may not be an excuse, but it was certainly a factor. The documents referred to show that, no matter how well-meaning the government's actions, there was no understanding of the quagmire which would be entered upon with the first attempts at social intervention. The progression of these documents. and Duffy's implied rationale, also show how policies required to solve one problem at one time may be counterproductive for other problems and other times.

The book comes at an interesting time. Recent elections for the Inuit Tapirisat stirred the communities so little that many did not bother to set up polling stations. The great strides in Inuit political involvement may not yet be what Duffy claims. As well, a current furore centres on a report claiming that the educational system has failed here, because it has not adquately taught both traditional skills and the three Rs. That echoes the theme from The road to Nunavut, but one is left wondering if it is truly possible to have all things, as Duffy seems to want protection of traditional ways as well as full participation in the moden economy and Canadian society. With the benefits of each option, come some inevitable trade-offs. The road to Nunavut is nonetheless a very interesting history, and will doubtless be a source of fuel for the discussions and debates during long winter nights to come. (Heather Myers, Pond Inlet, NWT, Canada.)

REMOTE SENSING

DIGITAL IMAGE PROCESSING IN REMOTE SENS-ING. Muller, J.-P. (editor). 1988. London, Taylor and Francis. 275 p, illustrated, hard cover. ISBN 0-85066-314-8. £38.00, US\$84.00.

This attractively-produced book arose from a workshop held in 1984 at University College London, under the sponsorship of IBM and of the Remote Sensing Society. It contains seven chapters from speakers at that meeting, and several chapters contributed by other experts in the field. Digital image processing is a general term describing a range of computing techniques for the extraction of information from the raw data yielded by any electronic imaging system. It is thus of importance to anyone who uses remotely sensed data, whether or not he actually manipulates them himself on an image-processing system. The intention of the book, which it largely meets, is to provide an introduction to how these manipulations are performed, and what kind of results may be achieved. The 'how' covers both equipment and algorithms; the 'what', although largely devoted to fairly theoretical considerations, includes by way of practical example entire chapters on oceanographical and astronomical imaging.

This book is not a collection of programming recipes, and it is unnecessary to be a computing expert to make use of it. Many of the chapters are in the nature of reviews, or at least contain significant components of this kind, and the lists of references are extensive. It does, unfortunately, contain the jargon and inelegant constructions to which computer experts habituate themselves, but which seem so strange to the rest of us. It also suffers from the lack of coherence which is difficult to avoid in books with one author (or more) per chapter, although this is to some extent mitigated by the editor's introductory chapter. The typesetting is excellent, as one would expect in this age of sophisticated 'desktop publishing', although the gremlins still manage to attack here and there. The book, then, will be of interest to anyone who works with digital images, although the largest readership will, I imagine, be amongst those whose business it is to construct efficient methods for the analysis of those images. (Gareth Rees, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

GREENPEACE IN ANTARCTICA

ICEBOUND: THE GREENPEACE EXPEDITION TO ANTARCTICA. Knight, Stephen. 1988. Auckland, Century Hutchinson Group. 126 p, illustrated, soft cover. ISBN 1-86941-020-3. NZ\$24.95

This account of the 1987 Greenpeace Expedition to Antarctica, to establish a quasi-permanent base on Ross Island close to Scott Base (New Zealand), McMurdo (USA) and Captain Scott's memorial hut, is written by a New Zealand journalist recruited in Auckland to join the Greenpeace team. A bright red sticker on the front cover of the book declares this is the first independent account of the expedition. This distinguishes it, and perhaps distances it, from John May's recent Greenpeace book of Antarctica: a new view of the seventh continent, reviewed in the September 1988 issue of Polar Record.

The first four chapters are concerned with the discovery of Antarctica, the Antarctic Treaty, and the aims of Greenpeace as an environmental pressure group. Not until Ch 5 do we read that MV *Greenpeace* is leaving Christchurch sailing south for Ross Island, and then the narrative is as much concerned with personalities as it is with policies. The story is told rather in the manner of a child's composition, jumping from paragraph to paragraph with