

Book Reviews

THE ODDEST PLACE ON EARTH. Christopher Pala. 2002. San Jose: Writer's Showcase. viii + 314 p; softcover. ISBN 0-595-21454-1. US\$17.95; £14.99. DOI: 10.1017/S0032247403213310

In this book Christopher Pala, a freelance journalist, proposes the first 'expedition to nowhere.' It's a premise that could only be carried out at 'The oddest place on Earth,' the North Pole, which, as a real place, has no more substance than the mathematical conception it represents, since, there, even direction and time are, in any real sense, meaningless. A century ago, just reaching it was the ardent dream of many explorers. Today, since anyone with enough money can go there any spring, rather than making the Pole his goal, Pala will start his expedition at the Pole itself, drift away on the floating ice that covers it while he sleeps, and return to it every 24-hour period, day after day. This will put him in a position to record the daily activities of other visitors, who, we learn, have become surprisingly common.

An 'expedition to everywhere' is a possible alternate metaphor for the book itself, as it covers a lot of ground. We get explanations of natural and metaphysical phenomena associated with the Pole, a synopsis of *Twenty thousand leagues under the sea*, an account of a gargantuan hot-air balloon meet in Sweden, a mini-history of submarines from the time of Robert Fulton to the nuclear age, a small dose of Soviet politics and the improvised logistics necessary in the wake of the Soviet collapse, and even a few details on the South Pole and its environs.

There is also a fair glimpse of Russian mentality, which Pala clearly admires for its 'utter contempt for creature comforts' and stoic adaptation to the nasty surprises the Arctic can spring. Pala is accepted by the Russians who facilitate the polar tourist trade as a *normalny chelavyek* — a normal person — because of his command of the Russian language; his willingness to participate in Russian rituals, such as endless rounds of vodka-downing and sauna-sitting; and a certain shared less-than-serious attitude toward life and work that frustrates so many others in the book who have to deal with Russians to reach the Pole. By contrast, the French, who also occupy Pala's attention (he grew up in France), come off rather badly. Their insistence on bringing their culture with them rather than adapting to local conditions, and their general disdain for the improvisational and maddeningly undisciplined Russian approach to things never gains them 'normal' status.

For the most part, the book jumps back and forth between North Pole history and the current adventure tourism scene now focused on it. Along the way, many of the usual cast of characters appear, among them

the model of the romantic explorer, Fridtjof Nansen, and the practical, all-victorious, but never-fulfilled Roald Amundsen, who is now finally being recognized as first to reach both ends of the Earth. The hoary Cook–Peary fight over, it now seems, who was the best liar, Salomon Andrée's quixotic attempt to fly to the Pole in an uncontrollable hydrogen balloon in 1897 and the sensational discovery of his fate only 40 years later, and Hubert Wilkins' equally mad attempt to take a battered hulk of a submarine with non-functional diving planes under the polar ice each get generous treatments. More valuable are Pala's explorations of some less well-known stories, such as Storker Storkerson's Arctic drift, Ivan Papanin's establishment of the first drifting Arctic base, and, perhaps most valuable of all, his account of Alexander Kuznetsov's flight to the North Pole in 1948, previously published in the pages of this journal, which resulted in the first undisputed claim of a man to have stood at the actual Pole.

Nor are recent explorers neglected. We meet Björn Staib, whose 1965 attempt reawakened an interest in surface travel to the Pole; Ralph Plaisted, a Minnesota insurance man, whose first undisputed over-ice journey to the Pole in 1968 convinced him that Peary had not told the truth in 1909; and a host of others, like Borge Ousland and Madeleine Griselin, each seeking to carve out a place in polar history by achieving one of a diminishing number of specialized 'firsts.'

Among these is one magnificent first, however: that of Richard Weber and Mikhail Malakhov, who in 1995 were first to reach the Pole and return to any point of land unassisted. In the odd world of polar politics, this amazing and still unduplicated journey has gotten so little acknowledgement that its repetition is always welcome, and Pala gives it the space it deserves.

Pala's eye for detail is always evident, but when he turns it to the current events at the Pole, this virtue of his writing can sometimes blunt his narrative's forward momentum. Literally scores of characters are named, but none but a few take on any substance, perhaps because, ultimately, they have none. The impression of the world of adventure tourism that is left is one of vast egos, petty rivalries, and the excesses of excess money, where it costs \$6000–12,000 for either a three-minute polar parachute jump or 15-minute snorkel under the ice, \$30,000 to be guided the 'Last degree' toward the Pole, or as much as \$100,000 to fly a hot-air balloon there. All of this invented adventure is drowned down by toasts of champagne, or, when it is frozen, vodka, nonetheless. But the adrenaline rush is difficult to transmit to the printed page, and without it the adventure tourism scene seems as empty as the champagne bottles left to drift south with the ice when

one group leaves the Pole to make room for the next helicopter-load of thrill seekers.

One is left to wonder if the historic and modern polar scenes are really so different. After all, the classic polar explorers were all about ego, money, and fame, weren't they?

When Pala eventually does go on his own 'expedition to nowhere' with his ex-fiancée, Silvia, he describes the polar peregrinations of a self-confessed 'couch potato' and a woman who detests cold with self-effacing humor and good grace. But underneath it all, one gets a sense of what an alien place the North Pole still is, even with a heated tent, luxurious French freeze-dried rations, the navigational aid of a GPS, and the security of modern communications. It is easy to imagine (and Pala does) any number of accidents or chance events that could quickly find them lost in the Arctic, where everything is white and nothing is permanent.

Of all of this, Christopher Pala writes with enthusiasm, and achieves a high standard of accuracy in his historical asides. Unfortunately, the lack of another pair of eyes for this self-published book results in a considerable number of distracting word-processing errors and a certain lack of continuity, which makes it read more like a collection of articles than a unified whole. If the writing is sometimes uneven, even so, Pala is a skillful writer at his best, and editors these days, even at the big publishing houses, hardly edit anything anymore. And if Christopher Pala's book about an 'expedition to nowhere' wanders up a few dead-end streets along the way, it finds a number of interesting byways that lead to an occasional unforgettable vista as well. That, in the end, makes this expedition to nowhere and everywhere a rewarding journey, after all. (Robert M. Bryce, Head Librarian, Montgomery College, 20200 Observation Drive, Germantown, MD 20874, USA.)

NARRATING THE ARCTIC: A CULTURAL HISTORY OF NORDIC SCIENTIFIC PRACTICES.

Michael Bravo and Sverker Sörlin (Editors). 2002. Canton, MA: Science History Publications. x + 373 p; illustrated; hardcover. ISBN 0-88135-385-X. US\$39.95. DOI: 10.1017/S0032247403223317

In the mid-1990s anthropologists and historians of science initiated 'the Northern Space,' a project on the relationship between polar exploration, science, and nation-building aspirations in the Nordic countries. The main book originating from this project is the anthology *Narrating the Arctic: a cultural history of Nordic scientific practices*.

In geographical terms, both Arctic and sub-Arctic areas are included. However, the central issues relate to comparisons in the art of story telling — how, when, by whom, and in what terms have Arctic stories been produced and distributed?

The key concept presented is 'narratives as technologies of travels,' whereby narratives themselves are seen as constituting equally important precision instruments

in the history of science as any other instrument for measurement or cartography. Narratives are presented as strategic practices of importance for those being explored, as well as for the explorers and their national self-images. As such, story telling is about themes aimed at legitimising the entire enterprise of the traveller-scientist. Editors Michael Bravo and Sverker Sörlin argue for the necessity to analyse the national histories of science and culture with regard to the Arctic within the context of some larger entity, putting forward the ideas of an 'Arcticity' analogous with 'Orientalism, Tropicality etc.' However, as will be shown, there are some impediments to this line of thought.

Travellers to the Arctic were scientists, missionaries, or other non-local men sent northwards in order to produce and disseminate knowledge about the 'desolate North.' However, the practices of mapping, measuring, naming, and writing meant inscribing Arctic life into the world of scientists based in scientific centres. Integral to the needs of their governments was to construct an Arctic heritage, while peripheral areas were to be positioned in relation to the central areas.

Nevertheless, travels to the north differed in Denmark, compared to Sweden and later Norway. The authors comment upon the varieties in missions, style, and the resulting national historiographies of Norway, Denmark, and Sweden. The editors conclude that these variations are considerable enough to deter the initially intended comparisons to the respective routes of the Nordic countries of colonising the Arctic by means of science and travel. The larger entity does not permit too much homogeneity as to the degree of 'Arcticness.'

To exemplify such differences, the articles under the heading of 'Meta narratives of northern nations' are useful. Sörlin shows how official Sweden entered the northern regions by means of developing forestry and the mining industry, coupled with scientific practices, particularly within the field of natural history, constantly with a 'cameralist' approach. The resulting encounter between officials and the Saami people involved an extensive disrespect for the culture of the Saamis. The prime motive was to make the Saamis into Swedes and increase the amount of taxpayers.

As Michael Harbsmeier argues, this was in contrast with the strategy of Denmark. In the first place, there were other types of sciences and scientists involved in exploring the north. Further, these officials established a long-standing, somewhat more spiritual colonial relationship to indigenous populations along side the scientific practices. Occasionally, the officials even felt guilty concerning the destiny of the Greenlander.

Three of the contributors are grouped below the next headline of 'Claims and controversies of the field,' which is about measurement, classification, and cartography. Pär Eliasson highlights the notion of how Lapland was said to be empty of people and desolate, and therefore the land was particularly suitable for urban scientists to produce careful inventory work. These scientific practices were

also exercised in the field of mapping the European Arctic, in the sense of placing them within the boundaries of one's own nation. Urban Wråkberg considers what arguments were used in the field of cartography. In the article by Christopher Ries, a controversy between modern and traditional polar science in Denmark is explored. Again, the modes of knowledge production raise issues of what kind of stories are to remain as the correct representations of genuine knowledge gathering of the north.

Under the heading of 'Technologies of indigeneity,' Michael Bravo sets out to explore the comparative dimension of the role of science in the relationship between a nation and its colony, bearing in mind the wider regional aspects (page 237). Bravo argues that anthropogeography in Nordic scientific practice at the turn of the last century was one method of exercising social Darwinism.

Gisli Pálsson elaborates gender in the contribution on the anthropologist and explorer Vilhjalmur Stefansson (1879–1962). Stefansson presented himself as explorer and hunter, but he was later to become known as introducing 'modern' scientific practices to the method of participant observations. However, he never acknowledged the crucial collaboration in data collection with the local woman who also gave birth to his son.

Kirsten Thisted explores the power to represent in the famous novel by Peter Høeg, *Smilla's sense of snow* (*Miss Smilla's feeling for snow* in the United Kingdom). Thisted shows that it does matter who discovers what and when and to what end. All descriptions and accounts involve the practice of representing, and more often than not there are asymmetries in the division of power between those who represent and those who are being represented. Thisted unfolds how the entire history of both Greenland and Denmark's relationship to Greenland are dealt with within the novel.

It is possible that travellers to the Arctic during previous centuries informed their audiences more about what they strived to find, than what they documented about their actual findings. Each contribution in its own way exposes these unintended efforts on behalf of the travellers. All of the articles, without exception, provide fascinating reading. All present encounters involving unequal counterparts in Arctic or sub-Arctic settings. Although actual geography definitely does matter, still the images, visions, and representations are at the fore.

The editors' departure from 'narratives as technology of travels' within the realm of scientific practices is indeed well argued for, but the editors possibly could have elaborated this theme even further. As each author vividly describes the deeds and doings of the missionaries, bureaucrats, scientists, mappers, photographers, and writers, each article in itself certainly contributes to the bulk of representations with regard to Arctic and sub-Arctic areas. The reader easily may get stuck in the (f)actual, national story told by each author, missing out the particular narrative forms presented. Seemingly the editors have had high expectations on their readers to

actually grasp all the dismantling and construction work each individual author has been engaged in. Besides this minor complaint, this book is necessary and pleasant reading for those with an interest in science and the polar regions, although my impression is that the editors did abdicate a bit too early. (Lisbeth Lewander, Department of Gender Studies, Göteborg University, Box 215, SE-405 30 Göteborg, Sweden and Department of Political Science, Karlstad University, SE-651 88 Karlstad, Sweden.)

INNOVATIVE APPROACHES TO THE ON-SITE ASSESSMENT AND REMEDIATION OF CONTAMINATED SITES. Danny Reible and Katerina Demnerova (Editors). 2002. Dordrecht, Boston, and London: Kluwer. xxxii+263 p; illustrated; hard cover. ISBN 1-4020-0956-9. £69.00; \$US101.00; EUR110. DOI: 10.1017/S0032247403233313

Innovative approaches to the on-site assessment and remediation of contaminated sites is the product of an Advanced Study Institute (ASI) sponsored by the North Atlantic Treaty Organisation. Essentially the book is a compilation of some of the lectures from the May 2001 ASI, edited by Danny Reible and Katerina Demnerova. The objective of the ASI, and presumably the book, was to 'balance state of the art science with techniques for field application of a variety of technologies for in situ assessment and remediation of contaminated sites' (page xxxi). The ASI organisers rightly recognised the importance of bringing recent technical advances to a wide audience, and the editors state that they 'hoped that the recognition of the range of contaminants and sites with which we must deal and an improved understanding of in situ management approaches and their effectiveness will be the result, leading to an enhanced ability to respond to these sites both within Europe and North America' (page xxxii). Although none of the book chapters specifically considers issues relating to contamination in seasonally frozen ground, the principle that on-site assessment and remediation is generally cheaper than off-site treatment is even more pertinent in cold regions, where excavation and transport costs are generally much higher than in temperate areas. At first glance, the book title should be of interest to cold-regions practitioners, at least for those who hope to find an overview of current scientific and technological advances in temperate regions.

The book is divided into seven chapters, each written by a multi-author team. Chapter 1 — 'Using a field analytical approach to accelerate site assessments' — gives an overview of the general principles and practices of using field analytical methods, primarily X-ray fluorescence, field portable gas chromatography, and immunoassay kits. This is one area where the potential advantage and cost saving for remote area use is enormous, especially in the polar regions. As the authors point out, the advantages of using field analytical methods include greater amounts of fit-for-purpose data, more timely analysis, less chance of sample degradation, and lower transport costs associated with shipping samples to established laboratories. The

main strength of the chapter is that it provides a good overview of the general utility of the techniques, and some of the pitfalls, such as the heavy reliance on well-trained specialist operators. Overall though, the chapter is poorly referenced, repetitive, provides no hard data on detection limits, and includes what must rank as one of the worst diagrams ever published (Fig. 1, page 13). For anyone who has ever wondered how field analytical methods could be used during site assessment and remediation, this chapter would give a conceptual framework of how it might happen — but little else.

The second chapter — ‘Mobility and availability of contaminants’ — is a little better. The authors highlight an important general point, and one that is highly relevant to cold regions: that ‘to set or establish realistic endpoints for remediation process, the physical-chemical and biological mechanisms that govern contaminants release, transport and fate in soils, sediments and associated fluid phases must be understood and quantified’ (page 31). The chapter goes on to describe selected soil toxicity tests, methods for the estimation of the properties of organic contaminants, miscible transport and availability, and the availability of contaminants in non-aqueous phase liquids. Although the application of the various tests and models would be very different for soils that freeze, the chapter does provide a good general overview on which to build.

Chapter 3 concerns the principles and applications of ‘Biodegradation and bioremediation.’ The topics covered include discussion of technology transfer issues, bioremediation of chlorinated volatile organic compounds, and alkylbenzene and polycyclic aromatic hydrocarbons. Using a number of case studies and laboratory trials, largely from the US, the authors provide a reasonable overview of the principles and applications of biodegradation use in remediation. The last section describes ‘Ecological, legal and methodological approaches to biological indication of soil quality,’ although I found it hard to discern anything particularly innovative here and found the section to be largely irrelevant — although that could be because sections 6.1 and 6.2 are missing from the text. Chapter 4 — entitled ‘Advances in phytoremediation: phytotransformation’ — was one of the better reviews of the fundamental principles behind this remediation strategy that I have come across. The chapter structure was clear, the information concise and broad in scope. However, I would have liked to see a few brief case studies to really make the case for actually using this technology. I don’t know what the phytoremediation potential is for use in polar regions; I suspect the potential is limited in the Arctic and non-existent in the Antarctic, but anyone wishing to explore this novel approach in a cold-regions context would benefit from reading this chapter.

Chapters 5 and 6 both concern *in situ* treatment, with chapter 5 focusing on monitored natural attenuation, and chapter 6 discussing bioremediation of munitions and dense non-aqueous phase liquids, surfactant-enhanced aquifer remediation, and a modification on permeable reactive barriers using *in situ* redox manipulation through

pumping appropriate buffers into an aquifer. Taken together, the two chapters provide a useful overview of some of the technologies that are currently available, including the sorts of issues that should be considered when using monitored natural attenuation as the preferred management technique for a site. The review is not as broad as I would have liked to see, with permeable reactive barriers, for example, getting only a brief mention, and recent advances in air sparging not mentioned at all.

The final chapter — ‘PCB: approaches to removal from the environment (current status of bioremediation in the Czech Republic)’ — is, as the title suggests, a review of biological approaches to PCB degradation. Given that there are 10 co-authors for this chapter, it is surprising and unfortunate that the chapter is not well written or edited. Although difficult to follow, the chapter begins by briefly describing three related physical-chemical systems for PCB desorption and separation. Although described as expensive, these systems might be of interest to those in the Arctic trying to manage the extensive PCB contamination at the DEW Line sites — almost certainly one of the most pressing contamination issues in the polar regions. It is difficult to ascertain from the text whether the technology can remediate to the standard of the DEW Line Cleanup Criteria, although I suspect not. The utility of *in situ* or on-site treatment in the Arctic by biodegradation using the approaches described from the Czech Republic is even less certain. Generally such processes are used in conjunction with a physical-chemical process, but for cold-regions application, additional issues, especially low temperatures or the cost implications of heating, would need to be addressed. As a review, there is some useful information in this chapter on the biodegradation pathways for PCBs, and an overview of methods suitable for bacterial cultivation. As a guide to possible technologies suitable for use in the north, the chapter is not a comprehensive resource of the subject.

Overall the book suffers because it is not a comprehensive balanced account of the subject matter. It swings between highly detailed and weakly generalized. There is a bewildering and indigestible suite of acronyms, the referencing is hit-and-miss, and the overall editing should have been much more thorough. The bottom line for cold-regions practitioners: should you buy the book for your office? I wouldn’t — but if you’re in the library and have a spare hour, it is worth a flick through. (Ian Snape, Human Impacts Research, Australian Antarctic Division, Channel Highway, Kingston, Tasmania 7050, Australia.)

ISLANDS OF THE ARCTIC. Julian Dowdeswell and Michael Hambrey. 2002. Cambridge: Cambridge University Press. xvi + 280 p; illustrated; hardcover. ISBN 0-521-81333-6. £25.00; US\$38.00. DOI: 10.1017/S003224740324331X

This is a richly illustrated book with a 10- × 10-inch format that allows it to be considered in part an introduction to earth and life sciences of the Arctic islands, and in part a coffee table book for those who are simply taken with the

beauty of the Arctic. The two authors have spent a large fraction of their careers working on and around the Arctic islands and many of the superb color photographs are from their own collections. Both authors have made significant contributions in the fields of glaciology, glacial geology, and marine geology, and both have spent many months in total in field camps or on research cruises into the region. Julian Dowdeswell is director of the Scott Polar Research Institute, and Michael Hambrey is director of the Centre for Glaciology at the University of Wales, Aberystwyth.

A map of the Northern Hemisphere indicates that Arctic islands form a substantial fraction of the land north of the Arctic Circle. In this geographic category, one would include Greenland, Iceland, Baffin Island, and the numerous other islands, large and small, that form the Canadian Arctic archipelago. Moving east of the zero meridian, the Arctic islands include the area of Svalbard and the various Russian islands that stretch eastward along the Eurasian Arctic margin to nearly 180°E, Wrangel Island. The Arctic islands thus fall under the jurisdiction of several Arctic nations, and this has led to differences in research and the roles of native peoples.

The scope of the book is best expressed by the authors' words (page 5): 'We hope that this book will serve as a source of information about the landscape, and how it influences and is influenced by, animals (including humans) and plants.' The book is not organized as a geographic text — a chapter on Greenland, one on Svalbard, etc — but is thematic in structure. The book consists of 10 chapters, a list of selected further readings, and two useful indexes, one geographic and the other by subject. The chapters are all about 30 pages in length, but this includes the numerous and spectacular photographs. After an introduction to the geography of the area (chapter 1), the book leads the reader through the early geological history of the region (some of the oldest rocks on the planet have been found in Greenland and date from around 3800 million years ago) to the present time. By 10 million years ago, the distribution of land and sea was essentially similar to today, and the stage was set for the area to be affected by glaciers and large ice sheets. Thereafter, we are first introduced to the physical environment and the processes that have shaped the islands, and then the book goes on to discuss the plant and animal life (chapter 8), with chapter 9 being devoted to issues of 'Indigenous peoples, exploration, and environmental impacts.' The Arctic islands have undergone much change in terms of the earth, life, and social sciences; hence, it is appropriate that the last chapter investigates 'Postscript: the future of the Arctic islands.'

Given the quality and quantity of the color photographs, my initial reaction was that this would be a moderately expensive book to purchase, hence its use as a classroom text might be limited. However, in checking the price in Amazon.com, I was surprised to see it listed at only \$26.00. This raises the question for whom is the book intended? Is it primarily a physical geography text for this Arctic region, or is it meant more to delight

the eye? The intent of the authors is well stated in the preface (page x), where they write: 'We also hope that the reader will become better informed about current environmental issues, so that we all may be encouraged to adopt a more sustainable approach to human activity in the Arctic.' Hence this book is really a tribute and a warning from two experienced researchers who clearly love their research but also show their deep affection for a region they know well and obviously plan on knowing better. For those wishing to know something about the past, present, and future history of the Arctic islands, this book is both affordable and informative, and it carries the added attraction of being exceptionally scenic. (John T. Andrews, Institute for Arctic and Alpine Research, University of Colorado, Boulder, CO 80309, USA.)

WILLIAM SPEIRS BRUCE: POLAR EXPLORER AND SCOTTISH NATIONALIST. Peter Speak. 2003. Edinburgh: National Museums of Scotland Publishing. 144 p, illustrated, soft cover. ISBN 1-901663-71-X. £9.99. DOI: 10.1017/S0032247403253316

Now that access to the polar regions is open to all and sundry, and the density of the population at the Poles at any time is likely to equal that at the summit of Mount Everest, it is hardly surprising that by some form of literary symbiosis there has been a parallel growth of biographies concerned with those who pioneered in these areas in the so-called 'Heroic Age of Polar Exploration.' Writing in 1957, the Fishers in their biography of Ernest Shackleton commented that he was already 'a surprisingly vague figure.' It would be difficult to say the same today. We have had television programmes and biographies, not just of Shackleton but of almost all the major characters (and many of the minor ones) of this 'Golden Age' — Scott, of course, but also Nansen, Amundsen, and a whole lot of lesser personages including Mrs Scott (we have even had an 'autobiography' of *Endurance's* cat). But so far there has been no new biography of one of the more complex characters who sailed south. Is it because Wilson's brand of austere muscular Christianity has little appeal for us for our own indulgent age?

Now we have another polar biography, but this time with a difference. Peter Speak has chosen to write of somebody who was hardly known outside Scotland even in his own lifetime and does not fit any conventional pattern of polar hero. He saw himself as a scientist and had no interest in any spectacular dashes to unknown regions — quite to the contrary he tells us: 'To reach the North Pole or South Pole is an athletic feat which may be put on the same level as an Olympic race or gymnastic performance. It is not serious scientific work.'

This is all too true, and William Speirs Bruce's refusal to play polar hero — apart from the fact that he was physically and temperamentally unsuited — is to be applauded. In his age, nationalism was turning polar discovery, in essence geographical discovery, into a race. Bruce did not join this race but he invoked nationalism and patriotic pride when seeking his own funds. The passions

aroused at the time and well described by Mr Speak seem, a century later, incomprehensible — who owned ‘a route to the Pole’ or had ‘rights’ to certain areas for exploration. Bruce’s quarrel with Sir Clements Markham was more than a clash of personalities. To Markham, Bruce was encroaching on ‘his’ territory; the *Scotia* expedition was ‘mischievous rivalry.’ For Bruce, there was simply no clash of interest: ‘if my friends are prepared to give me money to carry out my plans, I do not see why I should not accept it . . . I do not see how there cannot be room for my small expedition.’ For all that, Bruce was being naïve, not to say disingenuous, if he had not realised that by his behaviour he had aroused a dangerous enemy in the English establishment. It is probably due to Markham that nobody from *Scotia* ever received the Polar Medal. The English geographical establishment, as represented by the Royal Geographical Society, would hardly look favourably on him in future and possibly played a part in Bruce’s failure to establish a national oceanographic institute in Edinburgh.

In the event, the Scottish National Antarctic Expedition was to be Bruce’s most successful enterprise. In his remaining years he spent much time, money, and endeavour in prospecting, mostly for oil in Spitsbergen. He met with no success, and Mr Speak tells us that already on his return from the Antarctic, Bruce was beginning to identify more and more with Scottish nationalism and quotes Paul Fellowes, one of his friends: ‘that was the bee in his bonnet . . . the belief in there being such a thing as Scottish nationality.’ Having set this particular bee buzzing, Mr Speak leaves it to buzz off. Since the title of the book is *William Speirs Bruce: polar explorer and Scottish nationalist*, the reader is entitled to ask, ‘Did nationalist dreams interfere with Bruce’s scientific ambitions?’ How far did Bruce take his nationalism? Did Bruce really envisage an independent Scotland, or was it a romantic dream? In the 1900s the Scottish Home Rule question was never seriously discussed among the political classes except perhaps very briefly in 1912 at the height of the Irish Home Rule Bill. The modern Scottish National Party was not founded until 1933 — 11 years after Bruce’s death. It would be interesting to have more information about something that was obviously of profound importance to Bruce. In this context a better title for the book would have been *William Speirs Bruce: polar explorer and Scottish patriot*, which would be free of the political overtones the title has today, especially in Scotland with the Scottish National Party’s presence, both in Westminster and Edinburgh. This is a further point and herein lies the main problem of this short biography.

Like most modern biographers, Mr Speak attempts an account of his subject’s private and public life, but in some 120 pages we are merely given glimpses of both. This must lead to an oversimplification. We are forced to read between the lines — the biographer rarely pauses to give his opinion on behaviour or character. Thus we are told that Bruce’s marriage failed, and that he ‘managed to alienate some very influential people,’ when he remained

dependent on patronage for virtually all his activities while being described by a friend as being ‘as prickly as a Scottish thistle itself.’ So far, so interesting, but we are also told that Nansen, Amundsen, and Shackleton all visited Bruce at his Scottish oceanographical laboratory in Edinburgh. What on earth did they talk about? Were these mere courtesy calls? Did Amundsen visit before his attempt on the South Pole? Was he thinking of a base somewhere in the Weddell Sea? Likewise Shackleton, who had very practical reasons for discussing ice in the Weddell Sea. None of this we are told, yet surely this is of great interest to any reader with a polar interest.

Bruce died in 1921, a few months before Shackleton. Both had survived into an age in which they were anachronisms — radio and aircraft had made their types of expedition obsolete. While Shackleton’s fame has grown with the years, Bruce’s light has largely been eclipsed by more famous figures of the Heroic Age. This is a pity. He achieved much with slender resources. This book should have systematically listed his scientific publications, including those arising out of his collections; it could also have made more of his discovery of the Scotia Arc and the Scotia Sea, on which his wreath was appropriately cast. But above all more should have been made of his founding of a polar meteorological station with 100 years’ of climatological records. Also among his achievements was being a founder member of the Scottish Ski Club, which instituted the first national governing body of the sport in Britain. His glowing description of the tundra in summer can serve as an epitaph for someone who could say: ‘I have basked in the sun on wide stretches of the purple saxifrage, and have wandered over meadows green with Arctic willow. I have walked through grass and sulphur-flowered buttercups . . . and plunged my hand deep into velvet banks of rich green and red mosses.’

Mr Speak’s short book will help throw some well-deserved light on an unfairly neglected scientist from the Heroic Age. There were no Polar Medals for the team of the Scottish National Antarctic Expedition, but the scientific achievements stand clear, and virtue is its own reward. (Hugh Simpson, Farleitter, Insh, Kingussie, Inverness-shire PH21 1NU and Roger Tuftt, Achmandarach, Plockton, Ross-shire IV52 8TY.)

LAUNCELOT FLEMING: A PORTRAIT. Giles Hunt. 2003. Norwich: Canterbury Press. xiv + 274 p, illustrated, soft cover. ISBN 1-85311-523-1. £19.99. DOI: 10.1017/S0032247403263312

The author, Giles Hunt, a trusted former bishop’s chaplain, was asked by Launcelot Fleming’s widow, Jane, to go through all the public papers lodged at the Scott Polar Research Institute, Cambridge, and at Windsor. The search was extended with former colleagues sharing private memories. Hunt openly states he has produced not a biography but ‘a portrait which gives a true likeness.’

The front cover has an excellent portrait of a mature Fleming in thoughtful, restful pose breaking out of the

icy, mountainous landscape. Each chapter in the book also generates a new portrait of Fleming's life. The reader is provided with a retrospective exhibition: portraits and landscapes of his life, face, and context interacting. The introduction is by Owen Chadwick.

I didn't read this book in chronological order. I started at chapter 15 with 'The Dead Sea?' about when Fleming was appointed Bishop of Norwich. For Launcelot Fleming was my sponsoring bishop for ordination in my late teens. He had that capacity of putting one at ease with his engaging style, an unfussy and humble manner in his study or at the annual ordinands tea party. Those early encounters made me want to read the rest of the book.

I began a voyage of exploration trying to find out what had shaped Fleming in his life. Hunt paints the family portrait of the fifth son of a distinguished Edinburgh medical practitioner and a mother who had a strong clerical tradition. Born on 7 August 1906 and brought up in a typically secure upper-middle-class family with domestic staff, before the engines of the two world wars changed this social order, Fleming was blessed with privileged public schooling in the south of England and at Rugby, nurturing him for public duties as a Christian gentleman like his father.

Fleming said in later years that he didn't thrive at school, as he was a 'late developer.' He wasn't considered the brightest of pupils, which allowed him not to be channelled into a classical sixth-form education but set free for science, leading him to read natural sciences at Cambridge. Hunt reports that an attack of scarlet fever destined Fleming for polar rather than tropical exploration because he was 'permanently unable to sweat on one side of his body.' The diffident Fleming found a home at Trinity Hall, Cambridge, where the College Boat Club helped him to expand his world with confidence and in good company. He was awarded a good second in Part 1 of the Natural Sciences Tripos, crowned with a first in Geology for Part 2.

Despite earning a Commonwealth Scholarship to Yale University, Fleming did not pursue a straightforward academic career. The Dean of Trinity Hall advised him that fellowships in geology were few, and suggested that it 'could be combined with another office.' As Fleming was gifted in working pastorally with undergraduates, this could be combined with geology. Ordination was a means to a fellowship. There was a naturalness and dignified Christian pragmatism about the suggestion. Fleming was able, because of his personality, to integrate science and religion and live comfortably with them. His time at Yale was productive, and he toured America with 10 others in the relative comfort of a fleet of motor cars. He 'didn't like the American way of life . . . too much emphasis on the dollar, and I think it was a reaction against this that led me to ordination.'

Fleming returned to Cambridge to train as a 'gentlemen in holy orders,' rather than a professional priest, at Westcott House, where a family friend was the principal. Hunt suggests that he struggled to 'reconcile

his preparation for life as a priest, with its framework of prayer, with coaching Hall boats on the river and enjoying dining rights in the College.' Fleming legitimately went astray one summer vacation as a geologist with a small expedition to Iceland. This gave him 'an appetite for exploration.' He was ordained in June of the next year but immediately went off to Spitsbergen on another expedition before the Michaelmas term started with him as a fellow and chaplain at Trinity and 'serving his title' as a cleric under the Dean's supervision.

Hunt provides diary details of these early expeditions and also of the British Graham Land Expedition (BGLE, 1934–37), on which Fleming was chief scientist and chaplain. Hunt's chapters 'Voyage to Antarctica,' 'Chaplain in Antarctica,' and 'Geologist in Antarctica' cover familiar ground for readers of *Polar Record*, with detailed descriptions of the Antarctic landscape and the activities of the BGLE. Those interested in Fleming primarily as a theologian will be tempted to skip these chapters (I am still confused about the discovery of the King George the Sixth Sound), but they should read the details of the journeys in order to discover insights into Fleming. As the expedition's correspondent to *The Times*, he was alleged to have used 'Waterloo English' — good on description but with understated emotional significance. His private journal and later sermons gradually reveal feelings and evaluation about the natural world, about himself developing as a human being and a priest, and about journeying in close proximity with other people and depending on their skills, vigilance, and good temper. They had to kill their sledge dogs, who had been faithful workers and friends, when rations ran low. The 'Bish,' as he was known, didn't find it easy to accept. This missionary journey of adversity and hardship both helped shape him and earned him respect — he was elected Dean of his college in absentia whilst in Antarctica. His talks about the Antarctic in future years were great icebreakers with young people, warming them up for conversation.

The chapters 'Dean of Trinity Hall' and 'Wartime naval chaplain' need to be taken together. Hunt traces Fleming's support of 1930s pacifism and his view of the war being caused by the business mind, seeing the world as mine rather than God's. His public statements had been rather bland, but with the invasion of France pacifism 'had become difficult to reconcile with patriotic duty.' Fleming in many ways treated the naval battleship as a small Cambridge college, getting to know 'his people' and helping to bridge the educational and cultural gap with the crew. He offered friendship in a professional manner during time of national and personal adversity. In late 1944 he was appointed to work with the national selection of ex-service personnel for ordination training.

Fleming's appointment as Director of the Scott Polar Research Institute in 1947 was combined with that of dean and chaplain and is dealt with in the chapter 'Post-war Cambridge' in just over two pages. 'A much heavier workload' is noted as the Institute expanded. There is no landscape painting but only a quick impressionistic

portrait. The book is put on hold by 12 pages of interesting photographs.

In 1949 he was consecrated Bishop of Portsmouth, following which he became Bishop of Norwich. The Episcopal chapters provide portraits of people in both these dioceses. They have a feel of the Barchester Chronicles, but Fleming is painted as a gifted administrator, able to cut through the waffle of meetings and make them fun. As a bishop, he was concerned with improving housing and finance for the clergy. He had his 'little list' of names and profiles of people he had met on his travels to schools and colleges whom he thought worthy of preferment — a progressive headhunter with good judgement honed through the years and a strategic succession planner. Hunt does make the point that an 'unusually high percentage of the clergy Launcelot appointed came from public schools.' Such contacts also convinced him of the need to fill the void left after the cessation of national service by helping to found what came to be known as Voluntary Service Overseas. Fleming was good at networking to get funds to develop others rather than just for his own particular interests, and he did not hesitate to appoint those different from himself.

Hunt believes Fleming was able, owing to his academic tracks rather than his Episcopal status, to be involved with establishing the University of East Anglia. He was also a bishop who found time to be involved with outside causes and people, and the House of Lords provided room for that. Fleming did not get married until he was 58. It had been thought that he never had time for anything other than the single life, which allowed him to be with others and give all his time and thought for the journey and the exploration. Hunt sees a transformation in Fleming with his marriage to Jane Agutter: 'Bishop's House had become a home, and not simply a campaign headquarters.' This picture of a happy couple changed two years later when Fleming developed a spinal disorder, which made his legs prone to sudden collapse. Nevertheless, Fleming was not just one of many in the line of Bishops of Norwich, as Hunt shows by recording the appreciation of the present bishop, who is struck that his name 'is mentioned more frequently than I would have expected for a bishop who left a generation ago.'

When the Queen decided Fleming should be Dean of Windsor, he became a member of the Royal Household, providing services in St George's Chapel and being the senior domestic chaplain to the Queen. Fleming was also able to continue his work of training clergy for further study and possible preferment and getting people from different professions to listen and talk with each other at St George's conference centre. Hunt quotes what was said of a former Bishop of Oxford: 'that under him many things went quietly right that could have gone noisily wrong.'

Hunt paints pictures of Fleming (to adapt one of his sayings) of being young, then getting on, and then the final age of being wonderful. He presents the full retirement of

14 years living in Poynington. Fleming was the village priest, still making regular visits to schools and colleges, and keeping up with correspondence and friendships. There is the 'Last chapter,' where Fleming recommends learning the habit of letting go, 'so when the last letting go is called for, it will be familiar and confident.' Nothing heroic such as going out of a tent and not coming back, but something graceful, practical, and helpful. The 'Epilogue' records how a plaque was eventually erected, after the death of a difficult ecclesiastical lawyer, dedicated to Fleming in Poynington parish church. Hunt offers the final words in the form of the sermon given by the late Lord Runcie.

This book is more than a portrait of Fleming. He can be appreciated as a part of a past school of painting, acknowledged and still valued. In his life he combined portrait and landscape, privilege and duty, science and religion, young and old, university and church. Fleming helped others to be both explorers and painters, trying to map a passage through this life, learning to combine and integrate knowledge and feeling on life's canvas. (Edmund Betts, The Rectory, 10 Hopton Rise, Haverhill, Suffolk CB9 7FS.)

THE EARTH IS FASTER NOW: INDIGENOUS OBSERVATIONS OF ARCTIC ENVIRONMENTAL CHANGE. Igor Krupnik and Dyanna Jolly (Editors). 2002. Fairbanks: Arctic Research Consortium of the United States. xxvii + 356 p; illustrated; soft cover. ISBN 0-9720449-0-6. US\$20.00.
DOI: 10.1017/S0032247403273319

The Earth is faster now is the first of many works to come about indigenous perceptions and knowledge of climate change in the circumpolar region. At the risk of making a bad pun, climate change is the hottest research topic in the Arctic. That this is the case by no means diminishes the importance of climate as a research focus or of this volume, which brings together contributions that range geographically from Bering Strait to Labrador.

One might say that it is about time that students of northern peoples, if not of climatology, look at indigenous understanding(s) of climate in relation to the larger environment. This is not only because climate is always a solid topic of conversation in the Arctic, but also because the infiltration of environment into almost every corner of science, coupled with climate's impossible-to-ignore effects on every aspect of the north's ecosystem (to include humans), makes this extraordinarily sensible. (As an addition to the northern research agenda, ethnoclimatology has been helped by the fact that Inuit have been requesting that science pay attention to climate change for nearly a decade.)

Not surprising, the relative newness of climate change as a subject of social scientific investigation makes this book difficult to review. I say this because both the authors' and informants' diverse perspectives are very

much reflected in the ways that Dene, Yu'piit, and Inuit ethnoscientific information — or, as some might prefer, traditional ecological knowledge (TEK) — about climate are presented. Indeed, I found at least parts of some contributions, like navigating the winter landscape of the Kuskokwim River, a stretch from the central topic, but I also understand that an elder might express what he or she sees as significant climate-related local environmental changes through such details.

The 10 chapters that comprise *The Earth is faster now* are fascinating for what they do and, in some cases, do not inform about. It must be said that each one provides excellent 'ethnographic' detail about respondents' understandings of current climatic trends and their effects as compared to climate in the recent past (roughly to the early twentieth century). While in most chapters this knowledge is presented at least partly through informant narratives, the observations presented about past climatic conditions and what is presently occurring are sophisticated and extremely valuable, not least because the 'conclusions' put forward demonstrate the holism upon which TEK is built.

But these chapters also underscore some problems with the present state of ethnoclimatological research. One is that a broadly acceptable methodology for data collection must be developed if information from widely dispersed groups is to achieve integration. Is a focus group in Baker Lake the same thing as a focus group at Old Crow? How generalized within communities is the expert information of a Fred George?

More significant is that more than a few of the volume's contributors do not seem to have sought to validate against other sources of information the data that are presented. The chapters by Norton and Krupnik suggest ways of accomplishing such 'truthing.' Theirs are very different approaches and it would be a surprise if the same quality of past weather data (or satellite imagery) was available for each place; still, both took steps to test key informant or focus-group statements.

This volume is important reading as social science and for gaining insights into how local knowledge can positively contribute to wider climate work. Krupnik and Jolly, the chapter contributors, and the elders and others who made their knowledge available have done us great service.

Last, a cautionary comment. Several contributors use the term *Inuit Qaujimatuganqit* as an apparent synonym for TEK. *Inuit Qaujimatuganqit*, or IQ as it is increasingly called, certainly incorporates within it the kinds of facts about environment that many non-Inuit take to be the meat of TEK. However, to the best of my understanding this knowledge is only a part of IQ, which is itself an epistemological system about how to learn, be, and behave with respect to the surrounding world. IQ sounds better than TEK, but do we understand it any better than we do TEK? (George Wenzel, Department of Geography, McGill University, 805 Sherbrooke Street West, Montreal, Quebec H3A 2K6, Canada.)

THE VOYAGE OF THE ICEBERGS: FREDERIC CHURCH'S ARCTIC MASTERPIECE. Eleanor Jones Harvey with contributions by Gerald L. Carr. 2002. New Haven and London: Dallas Museum of Art and Yale University Press. 96 p, illustrated, hard cover. ISBN 0-300-09536-8. £16.95.

DOI: 10.1017/S0032247403283315

This book concerns one of the more famous romantic paintings with a polar theme, Frederic Edwin Church's *The icebergs*, which was presented to the Dallas Museum of Art by anonymous donors in 1979. The book is loosely divided into two parts: a description of the significance of the painting and, to a lesser extent, of Church's *oeuvre* as a whole, in the context of American art of the nineteenth century, followed by an account of the fascinating history of the work, during which it was purchased by an English collector, lost to view, rediscovered, auctioned, and donated to its present home.

The icebergs is a large work, having dimensions of 64.5 × 112.5 inches. It depicts an enormous iceberg in the centre mid-distance with an ice cliff, probably part of another iceberg, on the left. On the right is a relatively small ice arch, on one side of which is resting a large brown erratic. The only sign of human involvement is a broken mast resting on the ice in left centre. This was added after its original showing to the public. The sea is calm and, from the colour of the reasonably cloudy sky, it is late afternoon, the low Sun angle accentuating the colour contrasts.

The painting was first exhibited by Church under its original title, *The north*, in April 1861, shortly after the start of the American Civil War. Conceived as a 'great picture,' Church, who was by then well-known as a painter of large-scale landscapes and was at the height of his powers, took immense pains with it. This included undertaking a voyage to Newfoundland waters in 1859 in order to familiarise himself with the subject. His interest in the Arctic seems to have arisen from the Franklin search, and he became a friend of Isaac Israel Hayes, the well-known American Arctic explorer. The picture received much critical acclaim, but failed, no doubt because of the insecurity engendered by the war, to find a buyer in the United States. Church then altered the picture by the addition of the broken mast, clearly suggesting the fate of some vessel of exploration, changed its title to *The icebergs*, and took it to England, where it was exhibited in London. The preview was attended by several famous polar figures, including Lady Franklin, Sir Leopold McClintock, Dr John Rae, Sir George Back, and Sir Richard Collinson. More to the point, it attracted a buyer. This was Sir Edward William Watkin, a railway magnate and Member of Parliament, who took the picture to his house at Rose Hill, Northenden, just to the south of Manchester. Watkin had Canadian interests and this might have been the reason why he was attracted to the work.

The picture then vanished from the public eye. Watkin died and the house eventually became a home for boys

under the control of Manchester City Council. The picture remained in the house. It was eventually rediscovered, in moderate condition, in the late 1970s, and was auctioned in 1979 at Sotheby's in New York for US\$2.5 million, then a record price for a work of American art. The successful bidders were the persons who then donated it to the Dallas Museum.

The book is primarily directed at art historians rather than at polar historians. It comprises a lavish celebration of the painting and there are several colour reproductions of it and of parts of it. Indicating that cost was no object is the fact that three of these are identical, albeit of different size. Not only that, but there are six more figures that concentrate on various parts of the picture, each of which relates to a paragraph from a broadside prepared for the first showing. It is not the present aim to criticise the painting as such, but this reviewer permits himself the observation that the numerous sketches and studies prepared from 'life' while Church was in Newfoundland waters, of which many are presented, are a great deal more realistic *as icebergs* than is the picture itself. Not only is *The icebergs* reproduced, but there are several of Church's other works, including, *Niagara Falls from the American side* (1867), *New England landscape* (1849), *Twilight in the wilderness* (1860), *The heart of the Andes* (1859), and a further picture with a polar theme *Aurora borealis* (1865), which was based upon Hayes' experiences. Thus, we have in one book reproductions of many of Church's significant pictures.

The text is informative and is so short that it can conveniently be read at a single sitting, especially as there is a considerable critical apparatus. The authors have set out virtually all that one might reasonably wish to know about the picture and have diligently sought out a mass of references, including a comprehensive list of reviews. It is possibly unfair to criticise them for not doing what they have clearly not set out to do, but the total absence of any comparative comment becomes a trifle grating as one progresses through the book. The writers do, when commenting on an oil sketch by Church of *Oosisoak*, Hayes' lead sled dog, state that 'This engaging painting mimics the format and palette of so many of the portraits made of British arctic explorers, shown frontally, dressed in their furs, against an icy backdrop.' The footnote to this remark mentions Stephen Pearce's portraits now owned by the National Portrait Gallery, London. The charitable interpretation to be placed on this comparison is that they are not totally *au fait* with the entire body of Pearce's works, reproductions of some of which have been published in *Polar Record* (Stone 1988). But a comparison is almost crying out to be made with the other great, almost exactly contemporary, Arctic work, Landseer's *Man proposes, God disposes* (1864), and possibly with Caspar David Friedrich's *Frozen shipwreck* (1824) or even Millais' *The North-West Passage* (1874), which has also appeared in *Polar Record* (Stone 1986).

But as a monograph on a work of art, the book is excellent. Those polar historians who have interests in

matters other than the *minutiae* of individual expeditions should seek it out. They will find a veritable feast for the eyes and much information relating to the Arctic interests of the art world in the mid-nineteenth century. (Ian R. Stone, Laggan Juys, Larivane Close, Andreas, Isle of Man IM7 4HD.)

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RUSSIA AND THE WEST: ENVIRONMENTAL CO-OPERATION AND CONFLICT. Geir Hønneland. 2003. London and New York: Routledge. xii + 169 p; maps; hardcover. ISBN 0-415-29835-0. £50.00. DOI: 10.1017/S0032247403293311

Geir Hønneland's book deals with the way environmental issues are talked about differently in Russia and the West. For this purpose, Hønneland draws upon three cases that primarily deal with the Barents Sea, the northern Russian environment, and Russian and Norwegian attitudes to and involvement with it. The cases concern the management of living resources, mainly fish, in the Barents Sea; nuclear safety on Kol'skiy Poluoostrov; and industrial pollution. The book also promises to shed some light on the deeper contextual factors that have formed Norwegian–Russian interaction and the perception in these states of the environment. Hønneland among other things asks: 'How are the limits defined of what is to be perceived as legitimate knowledge, actor interests, and institutional arrangements? Are there any differences between the predominant discourses on these issues in the Russian and western parts of the European Arctic? How are environmental discourses embedded in more overarching discourses in society in Russia and the West?' and 'How are the national interests of Russia and the Nordic countries intertwined in discussions of knowledge and institution?' (pages 2, 4). To deal with these questions, Hønneland has chosen the research perspective of discourse analysis, to trace the 'nooks and crannies' of the development and to see how it has come to be at all possible, and in which way it now defines interactions in this case between the states. Based on the background of the research questions and perspective, the book seems to promise a rather deep analytical study.

However, already in the first chapter some of the depth one might expect from this departure is lacking. The author makes a rather abbreviated description of discourse analysis, predominantly drawing upon Litfin's concept of knowledge brokers, Hajer's focus on story lines and discourse coalitions, and Dryzek's fairly broad work on discourses on the environment. While these are three fairly different orientations to discourse, Hønneland only very briefly describes how he will utilise the concept and how elements from the different approaches can be combined. He also expresses some genealogical ambitions of going

into the history of how the present categories of thought on the environment in these states have developed, but mainly refers to Neumann's discussion of this Foucauldian concept. As a theoretical orientation to discourse analysis as a research perspective — and the perspective of the researcher in this work — the first chapter is a bit sparse.

This sparseness is actually a factor throughout the book, despite the practical detail in the case studies. There is little relation to a broader social science framework, and little reference to previous studies on Europe–Russia relations or the national mentalities or interests of these parties (where, for instance, other work by one author Hønneland has previously mentioned might have been suitable, such as Neumann 1996, 1999). Particularly, the author makes a fairly brief description of the development of the Barents Euro-Arctic Region (BEAR) and the 'Barents euphoria discourse,' which one wishes he had enlarged upon — especially as he has treated it extensively in previous articles (1995, 1998). Such a discussion of the broader policy context and particularly of the Barents region development by the Norwegian government would have been especially relevant since developments in all the three cases were impacted by the changes in Norwegian — and Russian! — foreign policy following the end of the Cold War: the precise context in which the BEAR and 'Barents euphoria' discourse were developed.

The context of previous conceptions in the states, and how they changed, is also not traced through documents — despite that these perceptions seem to be what hinders communication between the parties. For instance, in the case on industrial pollution, when Hønneland identifies the Russian perceptions of Kol'skiy Poluostrov as clean wilderness and the Norwegian perceptions of the same area as an environmental catastrophe zone, one might have wished for a deeper grounding in documents. How do Russians write about Kol'skiy Poluostrov in their own administration, policy, or tourism documents? How do Norwegian policy, NGO, and Barents region documents refer to it? As a main problem of co-operation seems to be that Russians interpret Norwegian actions not in terms of the 'sustainability' discourse as Norwegians do, but in terms of attempts to destroy, for instance, the Russian fishery, nuclear power, or industrial plants, it might have been relevant at least to briefly explain the very different histories of environmental movements in these areas (perhaps taking a cue from the essays in Stewart 1992). Hønneland writes on this matter about the 'typical Soviet-type belief in economic and social progress through the conquering of the natural environment' and that the 'fishing fleet, nickel smelters and the nuclear power plant on the Kola Peninsula are symbols of (Soviet) man's conquest of the natural world, bringing food, electricity, employment and economic gain to the local community, the region and the Union (today: Motherland)' (page 136). However, this is the kind of statement that the book does not place within the broader literature or explain in a way that might have made the reader understand these differences and from where they spring.

On this basis, the main lines of discourse that Hønneland identifies also feel a bit sparse and shortly described. This is a shame, because the case studies are described thoroughly and provide a good understanding of the mechanics of the situation and actors that could have allowed for a much broader discussion. The intent in Hønneland's writings comes through loud and clear: that throughout his years of work in this area (and the personal experience he explicitly draws upon), he has identified that Norwegian perceptions of Russia clearly differ from those in Russia. Among others, Hønneland identifies as lines of discourse that Norwegians express a misdirected pity for the 'poor Russians,' which was manifested particularly in the Barents euphoria, and that Norway and Russia have consistently had differing understandings of the (primarily Norwegian) environmental actions. This conflict or bias seems to be one thing that Hønneland has wished to target. Bias, however, is a consistently tricky thing to get down on paper and explore. It, amongst other things, requires a plethora of documents, and perhaps a historical and genealogical analysis to go into depth with the national conceptions that might have caused the conflicts.

While the book illustrates the issues and certainly contributes to an image of Norwegian–Russian conflicts in environmental matters, the genealogical ambition of coming to some sort of terms with how categories have developed is, thus, largely lacking. Hønneland's book is a formidable source for anyone looking for knowledge in these areas of environmental conflict and cooperation, but it does not achieve the ambition set in the beginning, such as constructing an answer to 'How are environmental discourses embedded in more overarching discourses in society in Russia and the West?' With all Hønneland's assembled knowledge of the area, however, and for the aim of tracing this bias, one can only wish that there might be a follow-up project along these lines. (E. Carina H. Keskitalo, International Relations, Department of Social Studies, University of Lapland, PO Box 122, 961 01 Rovaniemi, Finland.)

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SATELLITE IMAGE ATLAS OF GLACIERS OF THE WORLD: NORTH AMERICA. Richard S. Williams Jr and Jane G. Ferrigno (Editors). 2002. Washington, DC: US Government Printing Office (US Geological Survey Professional Paper 1386-J). xii + 405 p, illustrated, soft cover. ISBN 0-607-98290-X. DOI: 10.1017/S0032247403303316

The *satellite image atlas of glaciers of the world* was a major project initiated in the late 1970s to catalogue the regional extent of the Earth's glaciers using Landsat imagery. The primary sources for the project are Landsat 1, 2, and 3 MSS (multispectral scanner) data and the return beam vidicom on Landsat 2 and 3. I doubt whether the editors knew when they initiated the project how long it would take to complete (7 from 11 chapters have now been published), but they are to be applauded for their tenacity — and it appears that the project will be completed. The later volumes remain largely true to the original aims, and many of the figures do use early Landsat data, although there are some examples of more up-to-date sources being used. The relatively large pixel size of the Landsat imagery (~80 m) gives a rather grainy texture to some figures compared to the resolution we have become used to with more recent sensors, and also prevents the identification of the smallest ice bodies.

Despite its title, this volume contains chapters only on Canadian glaciers, those in the conterminous United States and Mexico: Alaskan glaciers are to be presented in a still-to-be published chapter (K). Overall there is a distinct Canadian bias to the contents, and some 330 of approximately 400 pages cover the Canadian Arctic archipelago, interior, and coastal regions. This bias is reasonable considering the relative area coverage of ice within these regions: Canada: 200,000 km²; USA: 580 km²; and Mexico: approximately 11 km².

The Canadian section of the book starts with an overview of Canada's glaciers and chapters on the history of glaciological research in Canada, using both traditional methods and satellite imagery. Subsequent chapters are arranged geographically, organised overall into sections on the Canadian Arctic, the Rocky Mountains in the interior, and the coastal ranges of British Columbia and the Yukon. However, substantive science background is also given at the appropriate junctures. For example, the section on glaciers of the Arctic islands contains discussion of the difficulties of measuring the mass balance of sub-polar glaciers as well as of the ice-core records that have been recovered.

Canada's glaciers are very diverse, consisting of ice caps and ice fields, outlet glaciers, and ice shelves constituted of both glacier ice and multi-year sea ice in the Arctic archipelago, as well as alpine glaciers, glacierets, and rock glaciers in the western and southern regions. All thermal regimes occur. The Yukon Territory contains a well-studied cluster of surge-type glaciers, of which Trapridge Glacier is the most famous. This volume contains a recent photograph of this glacier.

Three chapters discuss ice within the Canadian Arctic. The Canadian high Arctic contains ~5% of the northern hemisphere coverage of glacier ice, occupying mostly the higher elevation eastern areas. Larger ice masses consist of dynamic ice caps drained by outlet glaciers, many of which are thought to have warm basal conditions. Most of the glaciers have relatively low velocities (<50 m a⁻¹), although at least one has fast flow up to 400 m a⁻¹. Many of the smaller ice caps are stagnant, and have no outlet glaciers. These stagnant ice caps are considered to have formed in the last 4500 years and the smallest may have formed in response to the 'Little Ice Age' around 150–200 years ago, and are only 10–20 m thick. Baffin Island in the east of the archipelago is often considered to be one of the initiation areas for the formation of the Laurentide ice sheet. Now the Barnes and Penny ice caps contain the last remnants of Laurentide ice. White ice at the edge of the Barnes ice cap has been shown to be less dense than the bulk of the ice cap and to have an oxygen isotope ratio consistent with being of Late Pleistocene (Wisconsin) age.

The glaciers of the Canadian Rockies are discussed in an 80-page-long chapter arranged entirely geographically. It would appear that the chapter contains a very thorough review of work done in the region. The area contains the well-known recreation and skiing areas of Jasper, Banff, and Lake Louise, as well as several glaciers that are well known to the glaciological community, many from long-running mass-balance studies. One example is Peyto Glacier, which has been studied almost continuously since 1945. Within the chapter, each major mountain range is broken down into minor ranges and many glaciers are discussed separately. The result is a chapter that has more than 200 subsections, many of which are only a paragraph long. This structure means that the chapter has a very bitty feel to it, and it is difficult to read without feeling overwhelmed by the number of names. Overall, I think the chapter would have been improved by more general discussion (what characterises these glaciers in terms of dynamics, mass balance, setting, thermal regime, etc), perhaps with greater use of summary tables. Few figures are related to Landsat imagery or results derived from them, probably because many of the glaciers are too small. A number of photographs, several taken by Austin Post, are included and these are invariably clear and informative.

In contrast to the chapter on the Rockies, the Coast Mountains of British Columbia are described in a fascinating but brief eight-page chapter, which concentrates on human–glacier interactions in a region with rich mineral deposits and recreation potential. Glacier outburst floods are a recurring theme. The subsequent chapter on the glaciers of the St Elias Mountains concentrates on glacier surging. An analysis of the surges of the Tweedsmuir and Lowell glaciers ends the chapter. Both chapters are illustrated by a combination of Landsat imagery and by the crisp, clear, and evocative photography of Austin Post.

Glaciers lying to the south of the Canadian border are typically small and are hence less appropriate to study with Landsat imagery. Although nine of the western states of the US are glaciated, these glaciers can be resolved in only five from Landsat imagery. These glaciers are described in a single chapter. Approximately 75% of US glaciers outside of Alaska are contained within Washington state, and these glaciers include those on Mount St Helens, famous for the volcanic eruption of 18 May 1980, which truncated the accumulation zone of most of them. The chapter is lavishly illustrated with Landsat images.

The most southerly glaciers in North America are situated in three volcanic zones within Mexico, and these glaciers are described in the final chapter. All of these glaciers are small and relatively inaccessible, meaning that only limited research has been undertaken in the area.

The satellite image atlas of glaciers of the world: North America is published as a paperback, on delightfully good-quality paper, and the reproduction is crisp. It is a pleasure to see that all of the many excellent photographs of glaciers are labelled with location and date. The volume would be most useful to glaciologists working or considering working in these areas. It would provide an excellent geographic background and summary of literature for glaciers in the region. The publication would furthermore be of great interest to those who work more generally, take their recreation in, or travel through the glaciated areas of North America. (Tavi Murray, Glaciology Group, School of Geography, University of Leeds, Leeds LS2 9JT.)

SOUTH GEORGIA: GATEWAY TO ANTARCTICA.

Ludwig Kohl-Larsen. Translated by William Barr. 2003. Bluntisham: Bluntisham Books/Erskine Press. xviii + 294 p, illustrated, hard cover. ISBN 1-85297-075-8. £24.95; \$US45.00.

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First published as *An den Toren der Antarktis* in 1930, William Barr's translation into English is a very welcome addition to the South Georgia literature because it brings the account of this important episode in the island's exploration to a wider audience.

Ludwig Kohl's first expedition to Antarctica ended hardly before it had begun. He had joined Wilhelm Filchner's *Deutschland* expedition in 1911 but, on the voyage south, he developed acute appendicitis. The operation in primitive conditions and rough seas left him in a weakened state and he had to be left ashore at Grytviken when the expedition reached South Georgia. There he met Margit, one of C.A. Larsen's daughters. They married and he changed his name to Kohl-Larsen. In 1926, the couple returned, with a photographer, Albert Benitz, to South Georgia on the transport ship *Harpon*.

In the 1920s South Georgia was virtually unexplored despite being the base for a major industry. Kohl-Larsen made use of his family connections with that industry to set up a small but ambitious expedition to the island.

The key to the logistics was, as it would be on several expeditions in later years, free lifts on sealing and whaling vessels. The main objectives were the study of the natural history of birds and seals and the collection of geological and limnological specimens, while Benitz would make the first film of South Georgia, but the plan also included exploration of the interior of the island. To that date, the only excursion to penetrate the mountains and glaciers had been Shackleton's crossing from King Haakon Bay to Stromness in 1916. Although better equipped, Kohl-Larsen's trio did not have such good luck with the weather as Shackleton's exhausted trio, and their travels were rather limited.

The author's style is not always easy to read, especially when he embarks on more florid philosophising than is usual in polar literature. But it is worth persevering because this is one of the first accounts of an island that was then terra incognita. The narrative has to be approached from the position of a reader 70 years ago when penguins, seals, glaciers, and icebergs were unfamiliar to most Europeans. Even now, the detailed descriptions of the breeding of elephant seals and gentoo penguins make a good popular introduction to these species. Kohl-Larsen was not only insatiably curious but a meticulous observer. For him, the 'greatest joy is the actual act of finding out and the possibility of observing lifestyles and their connection with the environment.' And there are traces of quiet humour to enliven the tale. To treat a finger bitten by an elephant seal, one 'dunks it for a long time in 96% alcohol; in so doing one simultaneously atones for quite a few sins and can grant oneself absolution for a year without the consolation of a priest.'

The expedition's first destination was Coal Harbour, at the western end of the island. Here they camped for several weeks to observe and film the breeding habits of the elephant seal, for which 'one had to be prepared to occupy a tented camp on one of the stormiest coasts in the entire world for a long period, unflinchingly and cheerfully.' I suspect this attitude was often not easy to maintain in the face of the unrelenting bad weather. The book is filled with descriptions of days lost while the damp, cold, and frustrated trio sheltered from rain, snow, and wind. Their tent was flooded, buried under snow drifts, and, one night, its pole snapped. On another occasion a gale lifted the tent's groundsheet, and its three occupants, off the ground.

Despite the weather, the lives of elephant seals, gentoo penguins, and skuas were recorded in rare detail. When the weather finally relented and they set out to explore, it soon changed its mind. 'There is nothing to report on our return trip back to camp,' wrote Kohl-Larsen blandly. 'We travelled by watch and compass through blizzard conditions with zero visibility. Our tracks were no longer discernible.' I suspect that the bald statement hides an 'epic' journey.

From Coal Harbour, the party was taken to the Bay of Isles to study king penguins and ascend the Grace and Lucas glaciers. Then, after three and a half

months under canvas, they returned to Grytviken for an interlude with the whalers. They took part in a whale hunt and Kohl-Larsen discusses the future of whaling. He comments on the 'two opposing camps': the entrepreneurs at home who considered that the southern seas sheltered an inconceivable number of whales and the practical, thinking whalers who were worried about declining catches.

The next stop was Husvik, where they made their most ambitious journey: up the König Glacier to become the first humans to reach the top of the island and look across the mountains and glaciers. The view included what was later named the Kohl-Larsen Plateau and then renamed, strangely, the Kohl Plateau. On their return, Captain Sørllø, who a decade earlier had welcomed Shackleton to Stromness, dropped them off at Hercules Bay to see macaroni penguins. After another interlude at Grytviken, Kohl-Larsen and Benitz ('bachelors again with all the related rights and freedoms') were taken to Annenkov Island to film the wandering albatross. The trio's final excursion was to St Andrew's Bay for another session with king penguins.

In early May, as winter storms set in, they boarded *Harpon* again with 54 crates of scientific collections. It had been an incredibly productive expedition carried out under trying conditions. Throughout the stay on South Georgia, the Kohl-Larsens and Benitz had not only studied the birds and seals and explored unmapped country, they

had lost no opportunity to record other aspects of the island, from observing the working and social lives of the whalers and sealers to collecting fossils (sometimes with the aid of dynamite) and sampling the plankton of lakes and ponds whenever the chance arose. Their work has been overshadowed by the massive effort of the contemporary Discovery Investigations, but it is worthy of greater prominence.

This book will be enjoyed by anyone who has visited South Georgia. They will be given a vivid reminder of the island that once captured their imagination, and they will envy the Kohl-Larsen expedition's freedom to explore so much of the island with the unstinted assistance of the generous Norwegian whalers. After a particularly violent storm, a catcher-boat was despatched around the island solely to check that the campers were safe. The book should also be required reading for anyone proposing to visit South Georgia for the first time, as the island is revealed in its true colours. Captain Frederiksen, a sealing skipper, and Ludwig Kohl-Larsen agreed 'there is probably no place on earth where the weather and the gales are such a pain in the neck to us humans.' Yet, as everyone who has been to South Georgia knows, there are compensations. 'This is indeed a paradise in which we are living. Say what you like, friends! Forget the tough hours and days and remember this magnificent day.' (Robert Burton, 63 Common Lane, Hemingford Abbots, Huntingdon PE28 9AW.)