

from MacMillan's book, which puts them even farther offshore. And there are many other details where Welky chooses the book over the original diary, or even its manuscript 'revisions'.

Reading the AMNH diary, it seems MacMillan never seriously believed they actually sighted Crocker Land and that their continuance to the northwest was solely intended to reach a point far enough away from land to convince anyone that they had erased it from the map, at least where Peary had placed it. In fact, looking at the successive revisions of the distance from shore of their final position (106 miles by dead reckoning, 120 miles by celestial observation in the AMNH diary, 125 miles in a cairn record left immediately after returning to land, and eventually 150 miles in the 'reworking' made by the time MacMillan's book was published) suggests intentional enhancement towards this end.

Another curious statement at odds with the sources concerns MacMillan's recorded feelings upon seeing his dreams of a discovery literally evaporate before his eyes. 'A great feeling of relief tonight', he wrote in his AMNH diary, 'My dream of 5 years is off'. Welky notes this 'strange choice of words, and one which he never retreated from or elaborated upon. Relief,—not resentment, outrage, or disillusionment'. Yet Macmillan wrote in his book of this moment, 'My dreams of the last four years were merely dreams; my hopes had ended in bitter disappointment'. Perhaps MacMillan's original 'relief', when read with his ever-increasing adjustment of his mileage, can be seen as an indication of his awe of the terrors of the arctic pack and his desire to escape them just as soon as he had made a good show of it.

Welky starts his book with an account of Peary's 'discovery' of non-existent Crocker Land as if a matter of fact. This is probably another literary device to suspend the reader's belief. That's understandable, but there were reasons to doubt it even at the time. However, he ends his book's first section with a very thorough examination of the documentary evidence, first detailed by Dennis Rawlins (Rawlins 1973), and agrees with him and most other scholars who have studied the matter that Peary's belatedly announced discovery of Crocker Land in 1907 (neither his field diary nor any of his recovered 1906 cairn records mention his having seen it) was a deliberate lie intended to coax more money from former donor George Crocker, for whom he named it.

The book's second part deals with the tangled nightmare of failed rescue attempts that stretched the expedition to four years rather than two, and which ballooned its cost from an early estimate of \$25,000 to a final \$192,580.11. In an ironic twist, Dr. Hovey, who accompanied the first rescue attempt on the schooner *George B. Cluett* expecting nothing more than an exotic excursion of two months, gets marooned with the ship at North Star Bay and eventually ends up at Borup Lodge along with Captain Comer, who was *Cluett's* ice pilot. MacMillan found bunking with his boss decidedly unpleasant, and the two ended up loathing one another. The imperious Hovey constantly berated MacMillan for scientific bungling and unauthorized trade of expedition supplies in exchange for fox

pelts for his personal gain. Though stuck with him, MacMillan mostly ignored Hovey, and even Hovey eventually played down his animus for MacMillan and the relatively low scientific returns of the expedition to save the AMNH's reputation.

Cluett, when eventually extracted from the ice, didn't go north to bring the expedition off due to bitter dissension between Hovey and its captain. The next year, *Danmark*, sent out to rescue the rescuers, suffered a similar fate, being frozen in in Melville Bay. Finally, *Neptune*, under the redoubtable arctic veteran Bob Bartlett, finally succeeded in carrying away the remaining expedition members, MacMillan and Small, along with Comer, the others having gone south to the Danish settlements individually to reach a Europe now at war, and then eventually home. Welky does a good job of keeping what could be a tedious narrative of sledge trips South and rescue attempts North moving along, but this section naturally lacks the focus of the first part, once the dream of Crocker Land vanishes.

Welky's sources are well and professionally documented so that subsequent researchers should have no trouble locating them if desired. The bibliography is extensive and could serve as a guide for supplementary reading on the incidents described. The index is useful, although incomplete; some items get no entry, for instance, Barge Bay. Some personal name entries do not include all the mentions of the person that the book contains. For instance, Frederick Cook appears on nearly twice the number of pages listed there.

The illustrations have been well chosen to show the significant characters, places and ships involved, but there is only one inadequate map. It was produced for the book, but reflects, not modern geography, but what was known of the area at the time of the expedition and doesn't include any of the sledge routes taken by it. Reproducing the one from MacMillan's book that does, would have been preferable. The text is virtually free of typos, something unusual of late. A half dozen or so factual errors were noticed, but these are minor and probably only recognizable by the specialist.

Finally, the choice of title for the book is a bit puzzling. It comes from a passing statement made by Dr. Hovey regarding his own narrow personal dilemma at one particular moment, and wasn't meant to characterize the whole Crocker Land Expedition. Perhaps a better choice would have been: 'When every thing's gone dead wrong'. Those who read David Welky's book from front to back, and anyone interested in polar history or the Crocker Land Expedition in particular should, will understand why. (Robert M. Bryce, 12404 Linganore Ridge Dr., Monrovia, MD, 21770, USA (robertm.bryce@gmail.com)).

References

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Antarctica. The battle for the seventh continent. Doaa Abdel-Motaal. 2016. Santa Barbara: Praeger Press. 320p, hardcover. ISBN 978-1440848032. \$60.00.
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Antarctica is undergoing a 'silent battle for its spoils that started with its discovery and has continued without interruption ever

since', says the book's author. 'The battle ...is about to intensify' and 'will be one of the most complex and truly international contests for habitable space (and mineral resources) of modern times.... in which .. [the]...entire continent will be up for grabs'. Dramatic stuff, indeed. But all is not lost. Abdel-Motaal argues that we can safely open up the seventh continent as a haven for climate refugees, and exploit its mineral resources, provided we

use the right legal instrument – in particular by adopting the best features of the Svalbard Treaty, which governs exploitation of that Arctic island group under the sovereignty of Norway while respecting the rights of all Contracting Parties.

The book seems to have been stimulated by the pending arrival, in 2048, of the end of the 50-year moratorium on mining that came into effect in January 1998 with the entry into force of the Antarctic Treaty's Protocol on Environmental Protection, otherwise known as the Madrid Protocol. Those familiar with Antarctic legislation will recall that between 1982 and 1988 the Consultative Parties to the Antarctic Treaty had negotiated a Convention on the Regulation of Antarctic Mineral Resource Activity (CRAMRA), designed to control mining activities on the continent. Shortly thereafter Australia and France broke ranks, eventually persuading others to join them in abandoning the mining convention, and, indeed mining of any kind. As Abdel-Motaal points out, this was not solely for environmental reasons. For example, the UN General Assembly was against the convention because it wished to see equitable sharing of Antarctica's resources beyond the Parties to the Antarctic Treaty, and some Antarctic claimant states feared that CRAMRA might have an impact on their claims of territorial sovereignty. Instead, as is now well known, the Treaty Parties adopted the Madrid Protocol as a mechanism for protecting Antarctica as a wilderness reserve. The Protocol bans mining, but allows Parties to propose its review after 50 years.

The book contains an important subtext. Bearing in mind the likely growth in refugees as the global population soars to 9 or 10 billion by 2050, and as the globe continues to warm, Abdel-Motaal suggests that the Antarctic Peninsula and its offshore islands will soon be little different from West Greenland in climate (or Svalbard, for that matter), and could, under a different legal regime, be considered a suitable place to house climate refugees. Warming can also be expected to expose mineral resources currently buried by ice, while technological advances in coming years are expected to ease the task of mining in such a frigid environment (indeed, mining of various kinds is now widespread in the equally frigid Arctic).

Exploring different possible scenarios for managing Antarctica under such circumstances, Abdel-Motaal fixes on the Svalbard model as potentially the most suitable. She describes this model as having turned Svalbard into international territory managed under the sovereignty of Norway. It is in effect a demilitarized zone to which any national from a signatory country could emigrate with an equal right to land and commercial activity, managed under (diminished) sovereignty by Norway.

Membership of the Svalbard Treaty now comprises some 40 nations. Applying this model in Antarctica would reconcile the sovereignty of the claimant states with the principle of Antarctica as part of the common heritage of mankind. The seven claimant states would see their sovereign rights confirmed. The currently unclaimed portion would be divided between the USA and Russia, which reserved their rights to claim at the time of signing of the Antarctic Treaty. The rest of the world would be able to enjoy Antarctica's living space and benefit from its resources, as in Svalbard. Clearly effecting such a transition in Antarctica would not be easy, given that three territorial claims overlap –

those of the UK, Chile and Argentina, and one region remains unclaimed. But we have become used to resolving boundary disputes, for example within the UN Convention on the Law of the Sea (UNLOS).

Breaking up the Antarctic Treaty would seem like heresy to those who regard it as one of the most successful international agreements of the post World War II era. But as Abdel-Motaal points out, the Treaty does have significant shortcomings, not least the inability of its Parties to protect significant ecosystems, a defect pointed out in recent years by SCAR (the Scientific Committee on Antarctic Research). Furthermore she considers the Environmental Impact system, where ultimate responsibility rests with the state proposing the activity, to be inadequate, not least in the absence of enforcement (teeth) to ensure that what needs to get done is done. Besides that, Environmental Impact Statements fail usually to address the cumulative impact of activities, and the inspections of any individual Party's activities by others seldom lead to significant improvement.

Hence, as Abdel-Motaal points out: 'Contrary to popular perception, the environmental provisions of the Madrid Protocol are far weaker than the environmental safeguards in the CRAMRA that it displaced'. Furthermore the "liability regime is limited to environmental emergencies, without any obligation for environmental restoration'. In a sense, then, Antarctica and the Southern Ocean could be seen as 'unmanaged commons'. This sense is further reinforced by the fact that two unregulated commercial activities are already widespread in the Antarctic: tourism, and bioprospecting. In contrast, the stringent environmental protection seen in Svalbard suggests that Antarctica's most fragile ecosystems would be better protected under the sort of sovereign control offered by the Svalbard model, not least because land-use planning is a key part of Svalbard's environmental management – a concept absent from Antarctica, where the research stations of several countries are piled higgledy piggledy in places like King George Island.

I would take issue with Abdel-Motaal's insistence that tourists are 'flocking' to Antarctica, which suggests to me the lack of a sense of proportion. However, her observation that tourists pay into an environmental fund used for education, and nature conservation, thus linking tourism and conservation in Svalbard, strikes me as something worth applying in the south.

Besides her provocative recommendations, Abdel-Motaal offers a comprehensive analysis of the historical development and current operation of the Antarctic Treaty System that currently governs activities both on the continent and – through the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) – throughout much of the Southern Ocean. She does not pull her punches, but provides an honest appraisal – warts and all. This is a most useful text that should see widespread application in the educational and policy making communities, and among Antarctic operators of one kind or another. The world is not static, change is all around, and there are lessons to be learned from the Arctic that could well be applied in the south to improve matters there. The book is well worth a read. (Colin Summerhayes, Scott Polar Research Institute, University of Cambridge, Lensfield Rd, Cambridge CB2 1ER (cps32@cam.ac.uk)).