

ments (1993), as with the more specifically glacially orientated *Glacial environments* (either Hambrey or Menzies) or *Glacial geology: ice sheets and landforms*. The aims and intended audience for this text are not stated explicitly, which makes it difficult to judge how well the volume actually fulfils its intentions. It seems that comprehensive use of *Quaternary and glacial geology* is likely to be made by those at the advanced undergraduate stage onwards. Although accessible enough to be dipped into for an introduction to general Quaternary and glacial geology, the text's intimidating size will probably reduce the extent to which it is employed for such a purpose. However, it should prove a useful resource for final honours courses or modules in Quaternary environments, with its high level of detail and regional case studies, the latter in particular meeting a requirement that might otherwise have to be served by a meticulous literature synthesis from specialist journals. Postgraduates will certainly find this a useful text for similar reasons.

In summary, *Quaternary and glacial geology* is to be commended, along with both its author and translator, for providing a lucid text that moves smoothly from an introductory to an advanced level of detail, and backs up its treatment of theory and technique with regional studies comprising more than a quarter of the volume. This treatment is probably as good a combination of breadth and depth achievable without resorting to very specialised texts, such as edited, multi-author volumes or conference proceedings, which tend to be less coherent. (Richard Hodgkins, Department of Geography, University of Bristol, Bristol BS8 1SS.)

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**THE POLAR REGIONS AND THE DEVELOPMENT OF INTERNATIONAL LAW.** Donald R. Rothwell. 1996. Cambridge: Cambridge University Press. xxxii + 498 p, hard cover. ISBN 0-521-56182-5. £60.00; \$US95.00.

Lawyers are instinctively drawn to distinguishing between apparently similar circumstances, and finding similarities between apparently different ones. Instinct could not be better satisfied than by the polar regions, considered together rather than separately: how similar are the Arctic and Antarctic to each other, and how different? And, either together or separately, how different are they from the rest of the world, and how similar? These are the basic questions that, in the perspective of international law and relations, drive the book under review.

The author, a senior lecturer in the Faculty of Law at the University of Sydney, begins his study with an introductory summary of the geophysical and environmental char-

acteristics of the polar regions (pages 3–47). This survey is as well done as it is essential — law is heavily dependent on the circumstances to which it has to be applied, and any examination of the legal aspects of the polar regions requires an awareness of their very particular physical characteristics.

But a geographical problem has to be faced at the outset: what is 'Antarctica' or 'the Arctic'? What are their boundaries? Antarctica is easier to deal with: it is an ice-covered continental land mass clearly separated from neighbouring land masses, and certain already existing lines offer a choice — the Antarctic Circle, the Antarctic Treaty line (60°S), the true line of the ecologically significant 'Antarctic convergence' (varying between about 50° and 60°S), and the stylised version of that line adopted for CCAMLR (60°S, but 'stepped' to the north in certain areas as far as 45°S). It is this last line that the author adopts for his immediate purposes. In the Arctic, however, the situation is much more complex. Not only is there no Arctic continental land mass underpinning the polar ice, but there is no clear separation between the polar ice and neighbouring continents: furthermore, the disposition of surface land around the globe places much more of it closer to the North Pole than to the South Pole. So, while the 60°S parallel includes in Antarctica all of that continent and no part of any other, the equivalent 60°N parallel includes not only the core Arctic area but also Greenland (except for the southernmost tip), all of Iceland, most of Norway and Sweden, all of Finland, a large swathe across northern Russia, most of Alaska, and a substantial part of northern Canada. Yet it is that 60°N line that the author adopts for the purpose of his study (page 24). There must be a serious question (which deserves more than the page and a bit devoted to it) of how useful such a limit for the Arctic can really be, particularly since the author, understandably, pays scant attention to the populated areas thereby brought within his definition, in practice concentrating instead on the core polar area of ice-covered seas and immediately adjacent frozen lands.

About half the book (pages 51–257) is devoted to an account of the existing legal arrangements governing the two polar regions. The author's survey is thoroughly sound, and is to be highly recommended. He brings out clearly the extent to which the Antarctic regime is now well established while that for the Arctic is still embryonic, and the degree to which even the Antarctic region is essentially soft-centred — an enterprise of regular (now annual) plenary meetings, and wide-ranging activity and regulatory authority, but with no permanent headquarters or secretariat. He rightly observes (page 109) that nevertheless 'the [Antarctic] Treaty has been a successful framework instrument for the management of Antarctic affairs,' but that to 'understand the Antarctic legal regime it is necessary to look at not only the Treaty but the ATS [Antarctic Treaty System].' He does both, examining first the Treaty's origins and provisions (pages 51–109), and then (pages 110–154) the principal instruments that have

been elaborated to complement it in relation to the environment (the 1964 Agreed Measures and the 1991 Protocol), seals (1972 Convention), marine living resources (1980 Convention), and mineral resources (1988 Convention).

The Arctic presents a very different picture. Although, as chapter 6 shows, the beginnings of cooperation between the states bordering the Arctic have emerged, nothing remotely resembling a comprehensive and coherent legal regime for the area is yet to be discerned. While geopolitical considerations play some part in the difference between the north and south polar regions, another reason — and to lawyers a particularly significant one — is the difference between the two regions in terms of their territoriality (the Antarctic being largely an ice-covered land mass, and the Arctic being largely an ice-covered maritime space) and thus of the extent and nature of assertions of territorial sovereignty in the two regions. A comparison between pages 51–63 and 75–80 (regarding Antarctica) and pages 161–170 (regarding the Arctic) underlines this difference, as does the practical importance for the Arctic, but much less so for the Antarctic, of maritime questions, such as base lines, maritime boundaries, and rights of passage (pages 171–207 and chapter 7).

In turning to the reciprocal impact that international law and the polar regions have on each other, the author, in part III (pages 261–426), selects four topics for particular examination, devoting a chapter to each: the law of the sea, resource management, environmental law, and regime theory. The first three of these chapters inevitably involve some overlap with what has been said earlier. Yet even so, setting the relevant legal rules developed within each polar region against applicable general rules of international law in the same subject area produces interesting insights — such as the inadequacy or uncertainty of the rules of international law regarding that quintessential polar commodity, ice (pages 262–271, 300–301), and the impact of polar (particularly Antarctic) agreements on modern systems of resource management (chapter 8), while chapter 9 demonstrates the leading part played by the polar regions in raising environmental protection high on the international agenda.

The relatively short (20 pages) examination in chapter 10 of regime theory (picking up an earlier consideration of the matter at pages 9–19) is of a somewhat different nature from the rest of the book — an excursion into international relations, rather than a study rooted in international law (and, in particular, not a study of either polar regime as an ‘objective regime’ of the kind known to international lawyers, a matter given only cursory consideration at page 455). The view is advanced that an understanding of regime theory leads to a greater understanding of international law. To a limited extent this may be so, which is all the author claims (page 426). In substance, however, regime theory has more to do with international *systems* than with international *law*.

The book concludes with a chapter on the relationship between the polar regions and international law (pages

429–457). This pulls together the main threads of what has gone before, and explores some of them a little further. Quoting with approval Richard Falk’s comment that ‘The governance of Antarctica...is the closest thing to a “world order miracle” that the world has known,’ the author goes on to observe that while a similarly highly developed regime is not yet in place for the Arctic, a push in that direction has begun. As he puts it, the most important lesson provided by the two polar regions is that cooperative efforts in those areas demonstrate ‘that it is possible...to develop successfully multilateral cooperative mechanisms through international law’ (page 457).

Overall, this book is a sound and valuable (and well-written) contribution to a subject that has grown rapidly in importance in recent years and that is likely to continue to grow. As the author has shown, the growth of state activity in the polar regions has outstripped the development of general international law as a normative system capable of resolving many of the issues peculiar to them, while the evolution of regional regimes to fill the gap still has, particularly in the Arctic, a long way to go. Studies such as this, comparing the legal experience of the Arctic with that of the Antarctic, and comparing both with general international law in relevant areas, are of inestimable value in pointing the way ahead towards a systematic and coherent body of rules that is well-attuned to the special features and needs of the polar regions. (Sir Arthur Watts, 20 Essex Street, London WC2R 3AL.)

**GEOGRAPHY AND IMPERIALISM 1820–1940.** Morag Bell, Robin Butlin, and Michael Heffernan (Editors). 1995. Manchester: Manchester University Press. xiii + 338 p, illustrated, hard cover. ISBN 0-7190-3934-7. £45.00.

It has been widely acknowledged in recent years that European imperialism had far more complex cultural, ideological, and intellectual underpinnings than the traditional studies focusing mainly on economic forces and military action had assumed. Indeed, European expansionist and imperialist activities were facilitated and sustained by a broad range of individuals and agencies — found in governmental, business, academic, and private life — with differing, and at times clashing, visions, values, ambitions, and levels of influence. The tangled interactions and the contested discourse of these different people and interest groups has been examined in a most productive manner by the ‘Studies in Imperialism’ series of the Manchester University Press, which has made major inter-disciplinary contributions to the understanding of imperialism and a number of its constituent parts as cultural phenomena.

*Geography and imperialism*, a worthy successor to the earlier volumes in the series, examines the ways in which European imperialism was related to the theory and practice of geography between 1820 and 1940. It has been clearly shown that European imperialism was facilitated and nourished by modern science and technology (for