

tions either as food for whales or as food in their own right. (Anyone who, like this reviewer, has ever wondered whether the word 'krill' is singular or plural, might wish to consider the following quote: 'what are krill and why is Antarctic krill the superb krill?') Gerd Hubold contributes a short article on future biological research related especially to the two-way interactions between environmental change and the biota. On a different time scale, research into Antarctic geology also has strong global implications. J.A. Crame contributes a detailed elucidation of the fossil record of the Antarctic continent and discusses the evolution of polar biota in connection with the rest of the world, whereas Franz Tessensohn focuses specifically on what geological studies of the Antarctic continent can contribute to the solution of global geoscientific problems. And research of global importance is not limited to the inhuman world — D.J. Lugg discusses how using Antarctica as a space laboratory makes important contributions to social and other human research.

Rather different in character from the other articles is the extensive review by W.E. Arntz and V.A. Gallardo of recent progress in research on the Antarctic benthos. This paper, which is concerned with the benthos per se rather than in a global context, is twice as long as the others, has three times as many references, and is the only paper that appears to be written primarily for the specialist rather than for a more general audience. To this non-specialist, it appears to be an excellent review.

Two interesting general articles on the modern aspects of conducting research in the Antarctic form the lead-in to the book. The first is a short summary by the late Nigel Bonner on the tension between environmentalism and scientific research; in the second, David Drewry discusses conflicts of interest in the use of Antarctica. Both show their concern with protecting the conduct of scientific research against political encroachment, which, to these authors, largely means overly zealous environmental restrictions. Richard Laws also touches on these concerns in his preface, which addresses SCAR and the Antarctic Treaty System.

This is a fine book as far as it goes, but it would be much better had it not glaring gaps in its disciplinary coverage. Most of these gaps did not exist in the 1991 conference — papers presented there but missing from the book covered global climate, the mass balance of the Antarctic ice sheet and changes thereof, the marine sedimentary record, marine vertebrate biology, geodynamics, solid-earth geophysical research, and astronomical studies from Antarctic observatories. One can imagine and sympathize with the frustration the editor must have felt in not receiving written versions of those contributions.

Appearing as it does three years after the conference that spawned it, this volume is somewhat out of date. However, most of the papers have been modified to include newer references, in some case half a dozen or more (25 in the paper by Arntz and Gallardo, out of a total of 182). The book is well, if not profusely, illustrated,

handy in size, pleasing in format, and competently copy-edited — typographical errors are very few. At a mere US\$26 (flex-cover), it is a bargain not to be overlooked by anyone interested in Antarctic research. It is just regrettable that it is not more comprehensive. (Charles R. Bentley, Geophysical and Polar Research Center, Department of Geology and Geophysics, University of Wisconsin, Lewis G. Weeks Hall for Geological Sciences, 1215 West Dayton Street, Madison, WI 53706-1692, USA.)

THE BARENTS REGION: COOPERATION IN ARCTIC EUROPE. Olav Schram Stokke and Ola Tunander (Editors). 1994. London, New Delhi, and Thousand Oaks, CA: Sage Publications. xi + 239 p, illustrated, hard cover. ISBN 0-8039-7897-9.

With the bipolar global geopolitical system now only a historical memory, scholars and diplomats are searching for new paradigms to anticipate the direction that the international system might take as it enters the twenty-first century. The Cold War geopolitics, whose theoretical basis was a crude form of nationally oriented spatial determinism, is increasingly challenged and replaced by a new geopolitics, which recognizes that spatial patterns and political processes are not contained within national boundaries. The nation-state is part of a world that is a shared arena, and the resultant geopolitical map contains nested regions with overlapping boundaries. As trans-national economic, technological, social, and political forces gain or lose momentum, the regional frameworks — realms, regions, states, and subnational units — are likely to change in status and boundaries. And this, in effect, produces new parts-to-whole relationships within changing spatial-political milieus. The major contribution of *The Barents region* lies precisely in making this point clearly and forcefully in regard to post-Cold War Arctic Europe, and thus unravelling in a systematic and meticulous manner the complex web of factors, forces, and phenomena that stimulate or hinder regional cooperation in the Barents Euro-Arctic region.

The foreword by Thorvald Stoltenberg (who was the Foreign Minister of Norway at the formal inauguration of the Barents region in January 1992) emphasizes the promise and potential of the Barents cooperation as 'a model for East-West cooperation at the regional level that can be used in other regions spanning the former East-West border' (page x). In his view, the main challenge for the EU in the 1990s will be to establish and sustain a link between the eastern and western parts of Europe and to involve Russia in European cooperation.

The volume, succinctly introduced by its editors, is organized in three parts. The first, 'A new policy for the north,' is largely concerned with the vision and forces behind the Barents initiative. The contributors offer wide-ranging perspectives on the *raison d'être* of this bold and innovative experiment in trans-national cooperation. J.J. Holst sees the initiative as a process of development; a meeting-place for constructive dialogue in trade, transport, and environmental protection; and an instrument of

normalization, stabilization, and regionalization with duality — allowing interplay between regional and central government interests — as its key element. A. Kozyrev, Russia's Foreign Minister, finds in the Barents region cooperation the manifestation of a profoundly transformed geopolitical and geostrategic situation on the continent of Europe, which also underlines the 'importance of relations between peoples and not only between states' (page 25). He stresses the enormous physical and human resource potential of northwest Russia — previously the most militarized region in Russia — and the desire of the people, business circles, and administrators in this region for development and economic growth through contacts and cooperation with the rest of the world. In his view, Russia's major interest in the Barents cooperation is socio-economic: attracting the foreign capital and scientific and technical knowledge to realize the goal of accelerated economic recovery of the northern regions. No less significant from Russia's point of view is the promise of regional cooperation for trade and small-scale business.

O. Tunander's thought-provoking contribution emphasizes deliberate use of historical analogies — representing 1000 years of trade and cultural ties along the coast of Arctic Europe, and highlighting its general importance not for military conflict but for peaceful commercial activities — by the architects of the Barents region in order to replace the Cold War mentality with positive images of regional cooperation. In his view, the Barents region has been invented with the help of historical myths to encounter the inertia of the strategic nuclear complex, introduce political change, and manage domestic 'Euro-scepticism' in the north and 'Russian-scepticism' in the south.

R. Bathurst's starting point is that 'new and innovative political organizations almost necessarily arise out of paradox, when some old evolutionary form becomes structurally blocked' (page 45). In the case of the Barents region, he identifies the following such paradoxes on Kol'skiy Poluostrov: the loss of political legitimacy on the part of the political centre in Moscow, which earlier dictated and controlled Kol'skiy Poluostrov's economy and policy; the loss of purpose, direction, and privileges by the Russian military, for whose benefit the civil society had earlier been subordinated; and the sudden recognition of the criticality of international trade and cooperation, which Kol'skiy Poluostrov had been formerly militarized to repel. His key argument is that the success of the Barents initiative will depend largely upon moving quickly to devise and sustain cross-culturally compatible ideas, within the appropriate institutional framework. E. Hansen, in his extremely well-researched contribution draws attention to widely disparate ways of life and economic wealth between Russia and the western parts of the Barents region and explores the potential implications as interactions within the region multiply. The phenomenon under investigation is rather complex. The author, however, meets the challenge with considerable success and concludes that inequalities in living conditions are mere expressions of

'the underlying structural dissimilarities which have been created by nearly a century of disparate developmental paths inside the region,' further deepened by concomitant cultural and psychological aspects (page 70).

The concluding, thought-provoking contribution in the section is by R. Castberg, O.S. Stokke, and W. Østreg. They rightly point out that, even though the core of regionality lies in both the *interactive* (significant interaction in one or more spheres) as well as *discursive* (the extent to which it is perceived and spoken of as a natural unit) distinctiveness of a more or less clearly defined geographic area, regionality in the sense of a community must also be present at societal level. They conclude that whereas complementarity does exist between firms and groups in the Barents area, along with some sense of community among its inhabitants, the 'Barents region' is still far from being a predominant frame of reference for the decision-makers. Since regionality cannot be sustained only at the level of political elites, barriers to economic and socio-cultural interactions in the area, therefore, will have to be removed.

In the second part, 'Towards a cooperative region?,' the overarching question is whether Barents cooperation will be able to stimulate regional collaboration in areas like fisheries, energy, shipping, and environmental protection, and how such cooperation will affect the prospects of ecologically sustainable development and management of such diverse uses both in the short and long run.

J.P. Nielsen studies the historical relationships between Norway and Russia in the north (1814–1917) in general, and the so-called 'Pomor trade' in particular, and concludes that even if relations between Norway and Russia in the north were not entirely harmonious in pre-Revolution times, the incompatibility of interests was resolved without a single major conflict. In a way, the lack of symmetry in the perception each country had of the threat posed by the other helped reinforce the popular notion of a deep friendship.

R. Castberg deals competently with the potentials and problems of realizing closer economic cooperation in the Barents region in the face of distinct contrasts in standards of living, cultural and language barriers, widely differing political and economic traditions, open economies with undiversified production structures, widely diverging views within Russia on the future development of society and economy, and the fact that in many key sectors in northwest Russia, such as forestry or metallurgy, there are few matching partners on the other side of the border. Castberg cautions that, given such circumstances, economic miracles should not be expected and concludes that in order fully to utilize regional complementarities, it will be necessary to reduce the risks associated with exports to and investments in northwest Russia, and to weaken barriers resulting from cultural differences between east and west.

A.H. Hoel deals with what is by far the most important economic activity in the Barents region, that is, fishing. After exploring the implications of the maritime dispute

between Norway and Russia in the Barents Sea for the regulation of third-country fishing, he goes on to identify the major actors and interests in the fisheries sector. In his view, the integration between the Russian and Norwegian industries has witnessed a steady rise over the years, as evidenced by the huge amounts of Russian cod landing directly at Norwegian processing plants. How important, then, can the Barents region be in an area where inter-state co-operation is well-established and institutionalized? Hoel argues that much of the answer to this question is to be found in the key challenges facing the sector, and the extent to which the Barents cooperation could possibly help meet those challenges directly or indirectly. These include: 1. real and potential pollution threats to the Arctic waters from mining and smelterworks, nuclear dumping, and petroleum development; 2. development of the knowledge base for resource management; 3. political change caused in the east by the dismantling of the Soviet empire and the introduction of a market economy, and in the west by the general desire for deregulation, as well as an adaptation to the European Union's standards for regulating the economy through the European Economic Area Treaty (EEA); 4. modernization of the Russian fish-processing industry in the face of regulations designed by the EU, as well as by the US, to distort competition in favour of their own industries; and 5. safeguarding the rights of regional fishermen to regional fishing grounds against substantial increase in third-country fishing — not the least in the international waters between Svalbard and Novaya Zemlya — and the possible implications of the 'equal access' principle as and when Norway joins the EU. Hoel concludes on a cautious note that whereas cooperative efforts in the environmental field, incentives for economic cooperation at industry level, and the stabilizing effects of the general political climate induced by the Barents region might prove to be positive for the fisheries sector, the resource management functions may not benefit as much, because a management regime is already in place and there are barriers at both government and industrial levels.

A. Moe's soundly argued contribution leaves no doubt whatsoever that it is the oil and gas sector where a 'major industrial development is underway on the fringes on the Barents Region' (page 141). His answer to the question whether developments in this sector will be influenced by the Barents region cooperation is that large-scale petroleum projects can be viewed as a potential driving force for regional cooperation in the Barents area, instead of the other way round: 'oil and gas will continue to be a main attraction in the region, but political and economic integration efforts will have little significance for this sector' (page 141).

It is left to O.S. Stokke to explore the 'political relevance of the Barents Initiative to the main environmental problems in the region' (page 145). He begins by outlining the key pollution problems in the Barents region, pertinently points out that 'the gravest environmental

hazard...stems from the ample nuclear activity of the Russian Northern Fleet in particular' (page 146), and systematically explores the causes and consequences of both the actual and potential environmental threats posed by the continuing nuclearization of Kol'skiy Poluostrov. In his view, even though all in the region are affected in one way or the other by the pollution, one finds a marked variation in the relative priority and attention accorded to these issues by the states concerned. For example, in the case of Russia 'in a period of massive economic hardship, large-scale environmental investments which may reduce or reverse the hard currency flow from the region cannot be expected to enjoy high priority' (page 149). Stokke argues that while there are now in place various international mechanisms for protecting the Arctic environment, particularly the Arctic Environmental Protection Strategy (AEPS), the Barents Initiative can play an important role in this regard by 'bolstering political commitments and nurturing the build-up of consensual knowledge' (page 156).

Willy Østreng offers valuable insights on the relevance of the Northern Sea Route (NSR) to the Barents region. In his view the NSR invites 'natural collaboration' among the parties in the Barents region. He indicates that, while in the short term the NSR can contribute to economic growth and differentiation of trade and industry in the Barents region, a combination of international collaboration, technological innovation, and climatic developments could lead to the year-round sailing between Murmansk and the Pacific (page 171).

In the third part of the volume, 'The Barents region in the new Europe,' the concept and reality of the Barents region are approached and analyzed in terms of how it responds to the needs and opportunities arising from the new situation in post-Cold War Europe. Pavel Baev, focusing on Russia's geopolitical interests in the Barents region, argues that from Russia's point of view the region provides the 'only direct contact between Russia and Western Europe,' the best opportunity to compensate for the Russian retreat of activities in the far north and 'increase long-term investments in the North,' an 'effective framework for settling peacefully the residual border disputes with Norway,' and 'attractive opportunities for Western investors to participate in conversion programmes as well as allowing for the development of military-to-military contacts' (page 176).

Anders Kjølberg perceives the importance of the Barents region primarily in terms of its 'confidence-building' and 'security-building' roles, both in the larger European context and in relation to other cooperative regions. According to him, building a common-security community (characterized by compatibility of core values relevant to decision-making, capacity of the actors concerned to respond quickly and peacefully to each other's concerns and actions, and mutual predictability of behaviour), and especially integrating Russia into it, is a very challenging task 'that will acquire efforts over a wide area, both politically

and economically' (page 190). Given that cooperation within the region is marginal to the basic problems in Russia and that the high probability that the old power structures and vested interests in both the civil and military domains might perceive a threat from such cooperation, the prospects of realizing a common-security community across the former 'east-west' divide are by no means guaranteed. Kjölberg, however, concludes on an optimistic note, saying that in case it becomes possible to induce and sustain a cooperative behaviour among people unaccustomed to each other, the Barents region 'can become an important link in the line of regional cooperation from North to South' (page 199).

An illuminating comparative perspective on the Barents region is provided by Noralv Veggeland, who compares this initiative with three other east-west regions in Europe today: the Baltic Sea, the Alps-Adria, and the New Euro-Region. According to Veggeland, all three were launched as top-down, state initiatives, and did not benefit from any strong common identity basis in the territories concerned. The Barents region, even though a product of top-down initiative, is described as different, in being a 'functional region with potentials for becoming horizontally integrated' (page 209), institutionalized at both state and regional levels and not yet as developed as the Baltic or Alps-Adria regions in terms of economic networks.

Pertti Joenniemi tends to view the emergence of the Barents region as a manifestation of a trend of region-building that has now reached the northernmost reaches of Europe, further stimulated by the end of the Cold War. His point of departure from the approach adopted by most of the fellow contributors is that he regards regionalization as a more momentous European tendency, in which states are fast losing control over their subjects. In this perspective, regional alternatives to statism seem potentially compensatory, in terms of the quality of world order, for both the erosion of hegemonic stability and the more acute forms of pathology that are afflicting the weak state.

The Barents region is rich in thought and argument, innovative in its approach, and logically consistent in its presentation. A must for the student of Arctic affairs, it deals competently with concept and reality of regionalism in the Barents area from various perspectives, with one striking exception. Although the editors do point out at the outset that 'the volume does not pretend to be exhaustive, and central matters like the role of indigenous peoples, regional authorities or private organization are not given in-depth discussion...' (page 8), the absence of a chapter on indigenous issues from a Sami perspective is regrettable in what otherwise is a volume of exceptional merit.

That noted, it goes to the credit of the book that it not only provides answers to wide-ranging questions about the Barents region but also raises pertinent questions for further research. For example, it remains to be seen how regionalism of varying attributes fits within globalization; a central question for which evidence and interpretation are necessarily inconclusive. This uncertainty is further

magnified by the unevenness of different regional settings and of the varying degrees to which economic, political, and cultural life has been regionalized. The links between regionalism and what has been termed as 'negative globalism' (implying largely unaccountable power and influence exerted by multinational corporations, transnational banks and financial arenas, and their collaborators with the ideology of consumerism and a growth-oriented development ethos) also need to be explored. In the context of the Barents region, it might be interesting to explore whether the main regionalist tendencies are reinforcing the drift toward negative globalism or creating resistance (where an understanding of indigenous perspectives could be illuminating) and alternative mitigating options, including the promotion of positive globalism (that is, the democratization of global institutions, creating accountability to more democratic social forces, and establishing procedures for wider participation by representatives of diverse peoples). (Sanjay Chaturvedi, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

ARCTIC ADAPTATIONS: NATIVE WHALERS AND REINDEER HERDERS OF NORTHERN EURASIA. Igor Krupnick. 1994. Hanover, NH: University Press of New England. xvii + 355 p, illustrated, hard cover. ISBN 0-87451-632-3. £30.50; US\$17.50.

Arctic adaptations is a remarkably ambitious and — within the constraints of its methodology — successful research project. I will return to that caveat, but first a summary of the project, its arguments, and findings.

Krupnik describes his project as that of 'Arctic ethnoecology' (page 270) employing resource biology, systems analysis, and energetics in order 'to assemble and analyze various historical models of human behavior in Arctic ecosystems' (page xii). Thus the focus is on 'subsistence, resource management, and ecological behavior' (page xiii). The geographical reach of the book is nothing less than from Kol'skiy Poluostrov to the Bering Strait; its reach in time is in centuries (even millennia: the final chapter is a discussion of Arctic adaptations of Paleolithic hunters), particularly the eighteenth and nineteenth centuries, supplemented with data collected from 'local elders' during field trips between 1971 and 1987.

The principal research resources, then, are archival 'such as native population and fur-tax registers, and administrative reports on the status and welfare of the native people' (page 15) through the Tsarist and Soviet epochs. Ethnographically, there is an engaging comparative slant: sea-mammal hunters (particularly the Asiatic Eskimo [*sic*] and reindeer pastoralists (particularly the tundra Nenets and the Chukchi) are compared. The *modus operandi* (and there was really little choice) is statistical — 'the cold algebra of quantification' (page xiii).

The book sustains an argument. At the crux of it are two observations. First, that 'Arctic hunting was crucially dependent upon very short runs of abundant game' and