dunes makes the overall impact within the landscape appear to be rather small.

A similar bias colours the text on plant communities (page 75-81), where observed shifts in vegetation cover and composition attributed to reindeer over the past 25 years are described using terms like 'destruction' and 'destroyed.' Whenever reindeer are present they undeniably affect vegetation cover, yet their populations in the high Arctic have waxed and waned throughout the Holocene without human intervention (Klein 1999). The valuing of inactive versus active sand dunes and certain vegetation types (that is those rich in fruticose lichens) over others in the context of a growing population of reindeer is highly subjective. On the Nordic mainland, the politics of reindeer management are fierce, and it has rightly been pointed out that the impacts of grazing (and associated trampling) vary, sometimes starkly, in the eye of the beholder (Mysterud 2006; van der Wal 2006). Given the book's strong focus on recent climate warming as an overarching driver of landscape change, it would have been useful to include some reference to the potential influence of climate, or lack thereof, on reindeer population dynamics (see for example Tyler 2010).

The authors conclude with very short assessments of *Landscape development* and *Vegetation changes*, less than one page each. It is assumed that progressive warming will lead to the retreat and eventual disappearance of several glacier tongues. The message on vegetation is a bit more muddled, partly because of the strong bias against reindeer cited above. However, the authors also presume an 'increase of graminoids in the coming

years' (page 87) based on the literature. This is curious since the section on changes in plant communities since 2008 hardly mentions changes among graminoids at all.

The authors do not declare the intended audience of the book. It is probably most useful as an example of how older, carefully collected datasets on high Arctic land cover can be made relevant for the 21st century. The techniques involved can readily be learned and applied by undergraduates in geography interested in glacial and periglacial geomorphology. However, students of ecology should look elsewhere for understanding contemporary drivers of reindeer population dynamics and their implications for vegetation changes. (Bruce C. Forbes, Arctic Centre, University of Lapland, PO Box 122, 96101 Rovaniemi, Finland (bforbes@ulapland.fi)).

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ARKTYKA NA POCZĄTKU XXI WIEKU. MIĘDZY WSPÓŁPRACĄ A RYWALIZACJĄ [THE ARCTIC IN THE BEGINNING OF 21ST CENTURY. BETWEEN COOPERATION AND RIVALRY]. Michał Łuszczuk (editor). 2013. Lublin: Wydawnictwo Uniwersytetu Marii-Curie Skłodowskiej. 586 p, illustrated, softcover. ISBN 978-83-7784-311-6. PLN 50.40.

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Poland has a well established presence in the polar regions (Graczyk 2012; Łuszczuk 2013). Its legal ties include being a party to the Svalbard Treaty from 1931 and since 1977 acting as a Consultative Party to the Antarctic Treaty, which it joined in 1961. Poland belonged also, along with Germany and the United Kingdom, to a narrow group of non-Arctic states invited to observe the inception of the Arctic Environmental Protection Strategy (AEPS) in 1991. It was an accredited observer to the AEPS throughout its duration and has become observer to the Arctic Council at the time of its formation in 1996. In addition, the country holds observer status to the Barents-Euro Arctic Council (BEAC). Nonetheless, grounds for this political involvement in the polar regions lie primarily in the interests of the Polish scientific community, in particular in biology and earth sciences. Polish social scientists have become more interested in the Arctic only relatively recently and this volume is the first major publication on the topic. It is held in its entirety in Polish language but includes also an English translation of the introduction to the volume, which not only offers a review of the book's structure, but also provides an interesting and informative sketch of Polish political engagement and approaches towards the Arctic.

Overall, the volume consists of twenty-seven articles, divided into three main parts. The first section treats primarily the legal arrangements applicable to the Arctic, with some chapters focused also on economic and military aspects of developments in the region. The second part of the volume concentrates on institutional structures for cooperation in the north and the role of the indigenous peoples therein. Finally, the third part collects contributions on policies of selected, both Arctic and non-Arctic, states and entities vis-à-vis the Arctic. The volume thus intends to cover a broad range of issues related to the Arctic. In order to familiarise the reader with the Arctic (legal) framework the book introduces first general aspects of Arctic law while then moving on towards more specific matters. As laid out in the introduction, the key objective of the volume is to map the extent to which the Arctic region in the first decades of the 21st century can be perceived as an area of cooperation, alongside certain, simultaneously occurring elements of rivalry and to evaluate the importance of these developments on the regional and global scale.

The first twelve chapters deal largely with the legal instruments relevant to the Arctic, in the logical order starting from the United Nations Convention on the Law of the Sea (UNCLOS) and its provisions regulating Arctic states' sovereignty in Arctic waters. Next, a very detailed account relating to continental shelf issues in the Arctic and the role of the Commission on the Limits of the Continental Shelf (CLCS) in establishing UNCLOS parties' rights to their continental shelf extending beyond national jurisdiction is given. The part continues with shipping in the Arctic in the light of international law, economic aspects of Arctic development, discourse of Polish media on the

Arctic, military security in the region, multi-level governance in relation to Arctic climate change, legal instruments relevant to protection of Arctic environment and finally, coverage of Arctic climate change in the selected international documents. An interesting discussion furthermore emerges on a possible applicability of the concept of 'common heritage of mankind' in the Arctic.

The second part of the volume includes chapters focusing on structures of regional cooperation in the region. It begins with regionalism in the Arctic, followed by a chapter on the Council of Baltic Sea States (CBSS), the BEAC and the Arctic Council (AC) as forums for sub-regional and regional cooperation. It continues with discussing the role of the Nordic Council of Ministers in social and economic transformations in northwest Russia as well as Russian-Norwegian cooperation in the Barents Sea and eloquently addressing the role of indigenous peoples in the process of Arctic region-building. The part concludes interestingly with a chapter on the situation and aspirations of the Kven people in Norway, a topic very little covered in the mainstream literature on the region.

The third, and in terms of pages the smallest, part of the publication covers selected Arctic and non-Arctic actors. The chapters treat the Arctic policy of the United States, the place of the Arctic in Russian foreign and security policy, the increasing role of Greenland in international relations and the heritage of Pierre Trudeau in the present Canadian Arctic stance respectively. These texts are followed by contributions on the emerging Asian actors and their interests in the north, the Arctic policy of the Netherlands, developments in the EU Arctic policy 2008–2010 and conclude with the analysis of the EU's northern dimension *vis-à-vis* the challenges the Arctic is facing.

In general, the volume succeeds in presenting the breadth of topics connected to the Arctic, including most of relevant legal frameworks, institutional structures and attitudes of different actors. However, it would also benefit from a slightly amended structure in which for example the legal chapters could form one clear section of a book instead of being mixed with socioeconomic parts. The socio-economic section could then include contributions on major drivers and sectors expected to develop with the opening of the Arctic Ocean like exploration of energy resources, shipping and fisheries - important elements of discussions on the future of the Arctic which have not found their place in the publication. Similarly, such division of sections would allow perhaps for shortening of some contributions in the first legal part, which all tend to provide a similar overview of UNCLOS and its relevant provisions. As much as it is appropriate for each paper standing in its own right, it does not really benefit the reader who may not appreciate going through the same information several times in the volume. In the view of the author of this review also too many chapters in the first section build upon the potential for conflicts and scramble for resources in the Arctic, which is only one way (favoured particularly by public media) of reflecting on the situation in the region. Perhaps these tones could be more carefully nuanced as not to leave a reader with a too one-sided picture of an Arctic of geopolitical tensions and heightened rivalry.

Furthermore, some chapters (for example that by Maja Głuchowska-Wójcicka) in the volume could benefit from more referencing, in particular when using sources like the U.S. Geological Survey. This point becomes even more relevant seeing some discrepancies that occur between different chapters of the volume when talking about, for example, the size of potential oil and gas reserves in the Arctic. Whereas some

minor points emerge also in other parts, the greatest reservations the author of this review holds towards the chapter by Wojciech Janicki on Rivalry in the Arctic: political or economic premises?, in which the chapter's author claims that the nonratification of UNCLOS by the United States means the US finds itself free from the Convention's obligations (page 110). This claim is incorrect since the US acknowledges most of the UNCLOS provisions under international customary law. More importantly (and wrongly) he equals the potential extension of limits of the continental shelf up to 350 nautical miles with the extension of state's exclusive economic zones (pages 109, 119) and declares that the extent of states' EEZs in the Arctic is subject to numerous international disputes (page 108). Such mistakes ought to be clearly avoided, not to confuse and misinform the readers, in particular those less familiar with international law and the Arctic.

At the same time a number of chapters in the volume stand out and are highly informative. The chapter by Anna Pięcińska on the Polish media discourse on the Arctic in years 2005-2010 offers insights into coverage of Arctic-related stories in Polish press, which unfortunately most often depict the region in a sensational, selective and imprecise manner. The study, enriched with numerous quotes of metaphors used by Polish media, is fascinating and leads the author to conclude with a strong call for more thorough, science-based information to bring the Arctic closer to Polish readers and society in general. Other highlights of the volume include two chapters by Piotr Graczyk on the Arctic Council and on the US Arctic policy and its historical background; the contribution by Adam Stępień on a role of the indigenous peoples in the process of Arctic region-building; a study of the Kven people by Marta Petryk; the chapter by Marcin Gabryś on Pierre Trudeau's legacy and impact on the current Canadian Arctic position, and finally the text by Tomasz Brańka on Greenland's role in the Kingdom of Denmark and in international relations. Not only do these chapters offer a deep historical background to enable the reader to gain better understanding of their respective contexts, but they also go beyond the mere description and provide more comprehensive analysis of their subjects.

To conclude, the volume *The Arctic in the beginning of 21st century* should be judged not only by its research objective, but also by marking the first large study of Polish social scientists on the region. Despite some minor points, the volume offers an excellent introduction to a wide variety of relevant legal, social and political aspects related to the Arctic and in times of rising profile of the north in international relations it is of great significance that a publication on this topic becomes available in the Polish language. It is highly recommended to the academic audience and students in particular, as it may raise their interest in the fascinating Arctic and encourage them to undertake and deepen their own studies on the subject. (Malgorzata Smieszek, Arctic Centre, University of Lapland, PO Box 122, 96101 Rovaniemi, Finland (malgorzata@smieszek@ulapland.fi)).

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