

As a last example, Florian Vidal's chapter 'Barents Region: the Arctic Council as a stabilizing magnet' investigates the interplay between the Barents Euro-Arctic Region (BEAR) and the AC. While not delving into too much detail, Vidal shows how the cooperative structures in the AC also translate into deepened effectiveness of the BEAR. For instance, the location of the AC secretariat in Tromsø in association with the relocation of the Indigenous Peoples Secretariat from Copenhagen to Tromsø is a sign of the collaborative spirit between Russia and the western states in the Arctic as a whole, and particularly regarding the Barents Region. Indeed, to this reviewer's knowledge there is not much scholarly literature on the way the AC and the BEAR work or even compete with one another. Common threads between the AC, the BEAR and the Northern Forum have been identified (e.g. Hasanat, 2013), but a critical analysis of the interplay between these organisations appears to be lacking.

These three examples show that the contributions to the *Arctic Yearbook 2016* are thought-provoking and serve as inspiration for further research. What concerned me in some instances, however, was the terminology applied. For instance, the Arctic Council is often referred to as an 'institution' rather than a forum. Of course, there is no clear-cut definition of an institution *per se*, but I would argue that given the rather loose cooperative, indeed soft-law, structure of the Arctic Council it is not an institution at this point in time. The process of institutionalisation has without a doubt begun, best exemplified by the establishment of the secretariat and the conclusion of three legally binding regimes under its auspices. Also, some of the legal terminology used raises issues, for instance in Vidal's

chapter, in which he claims that the US has not 'signed' the UN Convention on the Law of the Sea (UNCLOS) (p. 308). This is factually incorrect, as the US signed it in 1994. It has, however, not ratified the convention and is therefore not party to it. While this may be the case, first, the UNCLOS is to a large degree shaped by customary law and the US accepts many of these provisions, and second, by signing it, based on the provisions of the Vienna Convention on the Law of Treaties, the US cannot act contrary to its purpose. In this sense, therefore, the US is indeed 'bound by this international legal framework' (p. 308) – at least to some degree.

These smaller issues notwithstanding, the *Arctic Yearbook 2016* is an important and recommendable publication focusing exclusively on the Arctic Council. In light of the diverse nature of the contributions and the multifaceted approach to analysing the Arctic Council it can be expected that it will serve as a reference work for future research on Arctic cooperation. The fact that all articles are readable and downloadable free of charge adds to this expectation. (Nikolas Sellheim, Scott Polar Research Institute, University of Cambridge, Lensfield Rd, Cambridge, CB2 1ER, UK ([nps31@cam.ac.uk](mailto:nps31@cam.ac.uk))).

### References

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- Lanteigne, M. (2017). 'Have you entered the storehouses of the snow?' China as a norm entrepreneur in the Arctic. *Polar Record*, 53(2), 117–130.

***Climate change impacts on ocean and coastal law. U.S. and international perspectives.*** Randall S. Abate (Ed.). 2015. Oxford: Oxford University Press. xli + 699 p, hard cover. ISBN 978-0-19-936874-7. £107.50  
doi:[10.1017/S0032247418000311](https://doi.org/10.1017/S0032247418000311)

The literature on climate change law or the impact of climate change on different legal landscapes has expanded significantly in the last few years. The present volume, which has gone unnoticed for almost 3 years by this reviewer, is a crucially important document for the understanding of the multifaceted impacts of climate change on ocean and coastal law. Naturally, it is nearly impossible to present a fully comprehensive volume that deals with these issues. I therefore commiserate with the Editor of this book on having to make the choice of what to include and what not. As set out in the *Introduction*, the book focuses on "several 'hot spots' throughout the world that provide valuable illustrations of these impacts and regulatory challenges" (p. xli). As the book title suggests, these 'hot spots' are presented within a domestic U.S. legal framework as well as in international law contexts.

The extensiveness of this volume is impressive and impossible to summarise in a short book review. Despite its inevitable limitations the book contains 27 chapters, subdivided into two overarching 'units' – *Oceans* and *Coasts*. These units are further subdivided into topical sections, which for *Oceans* are Ocean Governance Challenges in the United States; and International Ocean Governance Challenges; and for *Coasts* are Climate Change Adaptation: National and Regional Perspectives

in the United States; Climate Change Adaptation: Select State Case Studies; and Climate Change Adaptation: International and Comparative Law Perspectives. Further subdivisions contain sections on Ocean Acidification; Fisheries and Habitats; Off-shore Energy; Marine Mammals; Marine Invasive Species; Polar Regions; and Other International Ocean Governance Challenges. For the purposes of this book review and the readership of *Polar Record*, the section Polar Regions is of particular interest. After all, one needs to make choices of what to include and what not. But this is not to belittle the importance of the other chapters of the book, most of which are certainly relevant for the polar regions as well, or even deal with issues in the Arctic. Especially for the latter, Jones, Fredrickson and Leibman's 'Climate change impacts to fisheries and habitat in the Pacific and the Arctic,' Rizzardi's 'Marine Mammal Protection Act implementation in an era of climate change' and Roche, Sladic, Diamond and Mengerink's 'The role of Alaska natives in climate change decision-making in the Alaska Arctic' are noteworthy.

Three chapters comprise an overview of polar governance challenges. In 'Governance of Arctic Ocean marine resources' Kamrul Hossain presents the shortcomings of the scattered legal framework in the Arctic pertaining to marine living resources and hydrocarbons. In the opening sections of the chapter, Hossain paints a rather bleak picture and highlights the potential for geopolitical tension in the Arctic. This reviewer would argue a bit more cautiously, as it is after all the rule of law which prevails and all Arctic states adhere to. This is best exemplified by Hossain's depiction of the different submissions of claims to the Commission on the Limits of the Continental Shelf.

Notwithstanding, Hossain rightfully argues that governance shortcomings are manifold and range from procedural failures, such as inadequate implementation; via lack of inclusion of established environmental principles; to the lack of inclusion of indigenous and local peoples in the Arctic. While this may be the case, Hossain concludes that in light of the cooperative efforts under the Arctic Council it is possible to maintain a 'piecemeal' approach to resource governance without the need for a new comprehensive regime if the Council were to establish means to coordinate the different regimes and "help to identify the overlapping aspects so that better implementation of cross-sectoral resource management can be achieved" (p. 297). When presenting the four areas of the high seas where marine protected areas can be found, the chapter erroneously remarks that the "Northern Ocean" (p. 288) holds such an MPA. Of course, a Northern Ocean does not exist and what the author means to say is that in the *Southern Ocean* MPAs can be found.

The second 'polar' chapter is entitled "Climate change and the shifting international law and policy seascape for Arctic shipping" by David VanderZwaag. In this short and rather descriptive chapter the author presents the various governance initiatives taken regionally, globally and bilaterally to meet the challenges of changing environmental and economic conditions pertaining to shipping in the Arctic. At the core of the chapter stand the initiatives taken by the Arctic Council and in particular its Arctic Marine Shipping Assessment, and the briefly introduced work of the Arctic Regional Hydrographic Commission. The second focus lies on the International Maritime Organization (IMO) and the difficulties surrounding the adoption of the Polar Code. This International Code for Ships Operating in Polar Waters was adopted in 2014 and entered into force on 1 January 2017. Although the entering into force of the Polar Code marks a milestone for polar shipping, it does not address other pressing challenges, such as the regulation of grey water – sink, shower and laundry – discharged by vessels, or the ongoing agreement to disagree on the status of the Northwest Passage between the United States and Canada. Unfortunately the author does not delve into potential future prospects or provide further food for thought for resolving these challenges, the presentation of which is the main trajectory of this chapter. Also in this chapter an editorial mistake occurred: indigenous organisations are not

"Permanent Observers" (p. 302) but Permanent *Participants* in the Arctic Council.

The third 'polar' chapter, by Elizabeth Burleson and Jennifer Huang, shifts to the Antarctic and concerns 'Governance of climate change impacts on the Antarctic marine environment.' Again, large parts of the chapter are descriptive in nature and outline the prevailing governance regime in the Antarctic. But the authors provide critical food for thought and do not shy away from giving recommendations and suggestions for equipping the Antarctic Treaty System (ATS) with tools to weather the ongoing and impending environmental and economic changes in Antarctica. Most intriguingly, the authors compare the governance regimes of the Arctic, in this context the Arctic Council, and the ATS and present their views on what both regimes could learn from each other. For instance, they propose that the eight Arctic states and the fifty parties to the Antarctic Treaty could form polar coalitions in order to advance the polar agenda under the United Nations Framework Convention on Climate Change (UNFCCC). In light of the increase in Antarctic tourism, the authors recognise the potential of the Polar Code as a means for integrated polar governance. Indeed, this reviewer can only concur with the idea of approaching the polar regions comprehensively despite their obvious social, political and demographic differences. After all, as the authors underline, both polar regions play a crucial role in the Earth's climate system and should be taken centre stage in the global climate and ocean regimes.

While there are repetitions and overlaps in the volumes, and some rather minor editorial oversights, this reviewer was firmly impressed by the comprehensiveness of the presented topics and the diverse picture that is presented in this book. *Climate change impacts on ocean and coastal law* illustrates impressively how the complex environmental changes caused by climate change impact the different legal systems pertaining to the coasts and the sea in multifaceted ways. The book is therefore not only recommendable for legal scholars but also, given its background-providing nature, for scholars in other disciplines. Most notably, those doing research on, or working with, the challenges of climate change are strongly encouraged to obtain a copy of this book. (Nikolas Sellheim, Scott Polar Research Institute, University of Cambridge. Lensfield Road, Cambridge CB2 1ER, UK ([nps31@cam.ac.uk](mailto:nps31@cam.ac.uk))).

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***Studying Arctic Fields: Cultures, Practices, and Environmental Sciences.*** R.C. Powell. 2017. Ontario: McGill-Queens University Press. 264 p, hardcover. ISBN 9780773551121. CAD 120  
doi:[10.1017/S0032247418000335](https://doi.org/10.1017/S0032247418000335)

The latest book by geographer Richard C. Powell is an ethnographic study of social practices and networks that constitute the environmental sciences in the Canadian Arctic. It is based on two seasons of ethnographic fieldwork at the Polar Continental Shelf Project (PCSP) research base in Resolute (Nunavut, Canada), as well as on extensive archival research and various interviews. The series of pictures in the book illustrates the ethnography and, together with eloquent language, nicely arouses the reader's imagination.

As Powell himself stresses, an ethnography of Arctic science is a powerful tool for understanding the constitution of scientific research in practice and allows for the capture of the heterogenous context of relations (political, historical, gendered or scientific). The polar regions have gained a large amount of attention in recent years, and consequently, within the social sciences, the focus has extended a number of studies of indigenous communities. However, the scientific research in the polar regions has been rather out of focus within the social sciences or ethnographies (although the recent publication of Geissler and Kelly (2016) is, similarly to Powell's research, focused on the significance of scientific field stations in the polar and tropical regions). In *Studying Arctic Fields* Powell certainly brings light to an important, yet rather undeveloped issue, not only for social scientists but also politics, the public and, last but not least, the environmental scientists and logistics managers themselves.