

The Research Handbook on Polar Law by Edward Elgar Publishing is part of the series of Research Handbooks that the British publishing house offers as a research focus in different disciplines and properly indexed in particular themes. In the case of the Research Handbook in Polar Law, the collection of 22 articles attempts to offer a comprehensive view of what constitutes the dimension of Polar Law: biodiversity, culture, politics.

The tome is edited by Karen N. Scott and David L. VanderZwaag, who try in the introduction to invite readers to reflect on the existence of a Polar Law and on the need to have this legal exceptionalism. Polar Law arises from the need to accommodate the regional demands of a part of the Planet that historically responds to various natural, economic and cultural claims. For this reason, inserting the term of Polar Law in the nomenclature alone is very difficult, considering the multidisciplinary nature of the subject.

Although the Polar law recalls a rationalistic legal structure, the two Poles, Arctic and Antarctic, require a different treatment as they are two geologically and politically distinct areas. If in the Arctic speaking of cultural diversity is possible, research in Antarctica focuses more on the protection of nature and the correct management of human activities, such as research and tourism.

For this reason, the authors opened the analysis with a historical excursus on polar geology, explaining the effects of the Anthropocene and its developments in the era of climate change. As far as the Poles may seem far and remote areas, they are in fact strongly interconnected with the rest of the Globe. The high temperatures and the sudden melting of glaciers caused an unstoppable rise in sea levels and the sinking of lands and river deltas. But not only. It is interesting to discover how the disappearance of the glaciers has made the polar future increasingly dark, without solar reflection and greater absorption of radiation.

The effects of Climate Change also unfold on traditional and non-traditional human activities in the Arctic, bringing out new priorities and new actors in the political and administrative dimension of the polar areas. After Seck and MacLeod attempt to group the polar population based on activities, Nengye Liu analyses China's emerging role in Arctic politics, comparing the Chinese situation to the presence and competence of the European Union in both the Arctic and Antarctic. Although Chinese influence is still minimal in Polar Law, China is

increasingly present in issues such as fisheries, shipping and tourism, especially in the Southern Ocean.

In fact, fisheries and tourism activities in the Southern Ocean have increased dramatically in the last decade. In his article, Haward traces the salient points of the history of fishing in the Southern Ocean up to the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) part of the Antarctic Treaty System (ATS). Haward underlines the importance of conserving marine biodiversity, recalling when even the smallest element (krill) is indispensable for polar biodiversity. From the very beginning, CCAMLR has faced several resistances. Even today, it is hypothesized how this Convention can be integrated in the management of natural resources, especially in the policies regulating fishing.

A different approach is that explained by Hoel, who explains how fishing in the Arctic is managed, in particular by the Arctic Five, the five coastal Arctic states (Canada, United States of America (Alaska), Denmark (Greenland), Norway, Russia). Fishing in the Arctic has an additional meaning of sustenance for all the communities that live there. For this reason, the coastal Arctic countries have implemented tools to better manage this activity, such as moratoriums (US and Canada) and restrictive measures (Norway).

Natural resources are not just about flora and fauna. The Arctic is a region very rich in minerals and interest in developing these resources has grown over the years. The melting of the ice and the increasing number of fires in the Arctic has uncovered much of the covered land and has allowed further exploration.

Johnstone and Joblin talk about the limitations that Indigenous peoples still suffer in the enjoyment of territorial rights. Indigenous peoples, they points out, are not necessarily opposed to mining but would like to be able to participate more actively in decision-making processes involving the lands they have inhabited since time immemorial. Clearly, the connection sustainable development and extractive activities is not applicable in the Antarctic, as this continent is not permanently inhabited even if the growing presence of new actors (as previously argued by Liu).

Another important human activity in the Arctic and Antarctic is undoubtedly tourism. Again, global warming has opened up new avenues of communication, both by sea and by land,

requiring greater controls and monitoring systems (Chapter 15; Chapter 16). Liggett and Stewart explore the regulatory framework of maritime tourism in the Arctic (Nunavut) and Antarctica, questioning whether this is sufficient to promote the diversification of the polar tourism sector. As pointed out by the authors, the non-ratification of some important international instruments (UNCLOS) and the difficult implementation of the International Code for Ships Operating in Polar Waters (Polar Code), has weakened the domestic legal system that guarantees the harmonization of international law on the matter. As everyone knows, the COVID-19 pandemic has had devastating effects on the tourism sector in general, causing a total shutdown in the polar areas. The cessation of maritime routes has considerably reduced the economic income of the local communities increasingly involved in the sector. The advent of COVID-19 has prompted governors and academics to reflect on the environment, society and the economy. Three strongly interconnected dimensions that make up the concept of sustainability, now at the centre of global policies.

During the pandemic, the media often referred to the “resurgence of Nature”, telling stories of how the fauna and flora have regained the spaces occupied by man. Nature that still struggles to be the holder of rights, but passively undergoes the rules imposed by man to manage itself in order not to be damaged by the environment that it manipulates and transforms. For these reasons, I think it is really interesting and important to read chapter 16, in which Warner traces the international principles of environmental law in both polar regimes, weaving a profound analysis on the precautionary principle and the importance of drafting Environmental Impact Assessments (EIA) now implemented in many legal systems (thanks also to international influence and European directives in support of greater monitoring of human activities in the environment).

At the 26th UNFCCC Conference of the Parties (COP26) in Glasgow, global sustainability was one of the topics that drove the climate discussions. In fact, governments have talked about the policies to be adopted to lower the levels of carbon emissions, the primary cause of climate change. There continues to be some concern that the measures adopted, especially legal ones, do not take the vulnerability levels of the Poles seriously. In fact, the legal instruments are often of a soft-law nature such as the bodies that issue, albeit important, guidelines and policies in this regard (Arctic Council and containment measures for the levels of Mercury and POPs, especially in Antarctica). In addition, there is also a substantial inconsistency among polar regimes that tend to jeopardize policies relating to

climate change (Chapters 16 and 20).

The same perplexities are shared by Suzanne Lalonde, regarding the establishment of marine protected areas (MPA) and other effective area-based conservation measures in both polar regimes. Despite the legal instruments on the matter, the Arctic and Antarctica encounter the same coordination problems. If in the Arctic we find eight countries that manage MPAs according to their own legal system, in the Antarctic there is experience of logistical and regulatory overlaps (ATCM and CCAMLR). The author suggests the strengthening of inspection and monitoring systems in the Arctic (beyond the legal areas of state competence) by supporting cooperation between agencies and local communities.

Since the 1990s, the Arctic Council (AC) has referred to a further consequence of climate change: the acidification of the waters, which affects both the Arctic Ocean and the Southern Ocean. After the Arctic Council states recognized the problem of water acidification in 2015, the Arctic Council immediately adopted pro-active initiatives to combat the damage and risk factors, such as the Enhanced Black Carbon and Methane Emissions Reduction Framework for Action (EBCME Framework), with the commitment of member states to reduce black carbon and methane emissions.

The approach to the South Pole, according to Stephens, would be completely different. If in the Arctic we can speak of regionalism, the problem of acidification of Antarctic waters is treated in a more conservative way. Although the members of the Antarctic Treaty System (ATS) are more numerous than those of the Arctic Council, the regulatory framework is based only on the UNFCCC and the Paris Agreement and to date the ATS did not demonstrate the same dynamic response as the AC.

The volume ends with an examination of the position of Polar Law as a discipline, hypothesizing the factors that led to the creation of a branch of law. According to Rothwell and Hemmings, climate change, the effects of which are very evident in the polar regions, and the exploitation of resources are the main causes of the growing international interest. As mentioned previously, the polar legal framework is very complex and is the result of the first explorations and the first hypotheses of sovereignty of those lands. The fight against sovereignty and, consequently, the management of resources has resulted in conflicts and new theories that have spilled over into what we call "Polar governance" and the decision-

making systems that affect the economy, society, and the polar environment. The purpose of Polar Law, as suggested by the authors, is to respond to geopolitical and environmental challenges (p.473), and for this reason it will continue to adapt in an uncertain future marked by climate change.

After this brief and general overview of the volume, I would like to conclude my review with some personal reflections. First of all, I I firmly believe editorial series of this kind are of absolute importance both for those who work in the sector and also for amateurs of Arctic themes. Sustainability and the environment were the two pillars of this book which constituted the common thread through all the articles. Also appreciated the references and postscriptum on COVID-19 which has been an undeniable unknown for the past two years. I really appreciated the variety of disciplines proposed and the themes that the authors selected. Excellent Arctic-Antarctic dichotomy in each contribution that allows the reader to compare the two polar regimes in each field. The only thing that I personally have not fully approved is the order of the articles, poorly organized by argument. I would have preferred to find the scientific and humanities articles in separate sections or in a different group. For these reasons, I invite those interested in Polar Law to read this volume, hoping not to wait too long for a new issue.