

After the Ice: Life, death and politics in the new Arctic.

Gunnar Sander, January 2012

1. Project/publication	Anderson, A. (2009): <i>After the Ice: Life, Death and Politics in the New Arctic</i> . London: Virgin books, ISBN: 9780061942532, 298 pages. http://www.harpercollins.com/authors/34038/Alun_Anderson/index.aspx
2. Initiator	The book is an initiative from the author. Anderson is a science writer, now working independently. He was previously chief editor at <i>New Scientist</i> magazine and has also worked as an editor for <i>Nature</i> and <i>Science</i> .
3. Objective	In the introduction, Anderson explains that the goal of the book is to provide a broad sketch of the whole of the rapidly changing Arctic region, “so that its different parts are recognizable, and in the right places, and none are lost in excess of detail”. The soul of the book, he says, lies with the people and creatures of the Arctic. At the heart of the book, are his efforts to tackle the big scientific questions of Arctic change.
4. Geographical delimitation	The whole Arctic seen as a region. The Arctic Ocean is central in discussions of both sea ice processes, ecosystem changes and legal issues related to right to marine areas.
5. Time horizon	There is no explicit timeline in the structure of the book. Most of it discusses ongoing processes with ample historic references and outlooks for the future.
6. Thematic focus	<p>The book starts with reportage and accounts of inuits in Nunavut and reindeer herders in Russia. Their history and living conditions are explained through interviews with local people and social anthropologists.</p> <p>The next section tells about the vanishing Arctic sea ice. Here the author explains the sea ice processes and mechanisms behind the melt of the ice. He follows the work of the scientists and their struggles to observe and explain these processes. This is followed by a section about Arctic animals in a changing climate. Again, the scientists are explaining their work. The focus is on the marine ecosystems with a wide system view, shifting from the polar bear to killer whale as its iconic representatives at the top of the food chain.</p> <p>In a section about borders, the events following the Russian flag planting on the North Pole is discussed. The law of the sea is introduced, and so are certain aspects of Arctic governance issues. Svalbard is the theme for a separate chapter.</p> <p>Another section is about the advance of the oil industry with interviews and reportage from Alaska, Russia and Norway. Prospects for Arctic shipping are also presented, though not as extensively. The need to strengthen the governance systems regulating these industries concludes the section.</p> <p>In the final section, several Arctic climate processes that can have global consequences are presented: The ice-albedo effect, the rushing outlet glaciers at the Greenland Ice sheet and the outlooks for its further melting with associated sea-level rise, release of methane from melting permafrost and the effects of black carbon on climate change. The message is what the author has called “the Arctic revenge”: the Arctic is changing because of processes outside the region, but the forces set in motion may have far-reaching consequences for the rest of the world.</p> <p>The final chapter is called the future of the Arctic. This is a kind of summary of his findings. He fears that the climate change will become too big for Arctic ecosystems with its traditional species to survive. Winners in the new economic developments may be oil and gas, mining and shipping industries. But whether this future will also benefit indigenous and other local people, is more uncertain. “The greatest issue of all is time. We don’t know how fast the changes in the Arctic are coming. They may come too fast to allow people and</p>

	animals to adapt, and too fast for governments to react and protect what remains”
7. Images of the future	There are no separate scenarios for the future; the book is concentrated on processes. The closest is the final chapter referred above, tying some pieces together in his outlooks for where they may bring us and what are the challenges.
8. Key driving forces	The most important drivers are climate change and the hunt for new resources and shorter sea-lanes.
9. Uncertainties / wildcards	Exploring the scientific questions of Arctic change, the uncertainties are clearly presented. But due to the approach of the book, there are no “wildcards” like in scenarios.
10. Accomplishment and collaboration	The book is based on what Anderson has found while ”reading, talking and travelling”. He explains in the introduction that he has talked to well over a hundred experts of different disciplines, listened to almost three hundred lectures at conferences around the world, reading many scientific papers and seeking out books about past explorers.
11. Method	Qualitative.
12. Sources of information	See question 10. A list of experts and most central journals are listed in Sources, and there are literature references in footnotes to each chapter.
13. Strengths	<p>Anderson’s book was an early example of a literature that “discovers” the Arctic and explains the region to a wider audience. His approach, combining science, reportage and interviews, has been followed by several authors later.</p> <p>The book is very well written. Anderson is excellent in explaining complicated issues in natural sciences in a popular way, without losing too much of the complexities. Particularly the discussions of sea ice processes and changes to Arctic ecosystems are good. He has also managed to combine some of the most important issues on the Arctic agenda.</p>
14. Weaknesses	Anderson calls his goal referred in question 3 above as overambitious, nevertheless worth a try. As any book, he has made a selection of topics and views. The book is not as rich or good in explaining societal changes and the legal and governance challenges, as in its treatment of the natural sciences. The scientists have a dominant role in his story, and particularly local stakeholders and views from others than some representatives of indigenous peoples are missed. Still, main facts and views are presented good enough to give a good holistic view.
15. Attention and significance	<p>As an early author on the Arctic, with linkages to science journals, Anderson has probably managed to get a broader outreach than several of his successors. Searches on the internet reveal many interviews with the author. Just a few references:</p> <p>Guardian: http://www.guardian.co.uk/environment/audio/2009/dec/07/global-warming-arctic</p> <p>Planet Green: http://planetgreen.discovery.com/travel-outdoors/ice-author-alun-anderson.html</p> <p>Ecologist: http://www.theecologist.org/Interviews/420825/alun_anderson_id_like_a_big_volcanic_eruption_and_an_arctic_disaster.html</p> <p>http://www.huffingtonpost.com/alun-anderson/the-real-victims-of-climate-change_b_387675.html</p> <p>Radio interview: http://www.npr.org/templates/story/story.php?storyId=122650964 and in transcript http://www.npr.org/templates/transcript/transcript.php?storyId=122650964</p>
16. Relevance for the Fram	The book is about core issues for the Arctic Ocean flagship in particular.

Centre	
17 Additional comments	I was introduced to the author at an early stage in his writing, and provided him with several contacts that he has used.