

One doubts whether there is much more that can be set forth on these events and the editors' presentation is exhaustive, and indeed, rather exhausting. This reviewer wondered towards the end of reading the book, whether a little tighter editing might have made the whole work more accessible for the more general reader rather than for the specialist, for whom it is clearly

essential. But there is no doubt concerning the diligence of the editors with regard to unearthing the obscure written sources and in obtaining access to the oral ones. This book is an essential basis for any study of the events in question. (Ian R. Stone, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

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**GEOLOGICAL HISTORY OF GREENLAND: FOUR BILLION YEARS OF EARTH EVOLUTION.**

Niels Henriksen. 2008. Copenhagen: Geological Survey of Denmark and Greenland (GEUS). 272 p, illustrated, hard back. ISBN 978-87-7871-211-0. £44. doi:10.1017/S0032247409008560

This is an imposing book in many ways; a large format, beautifully illustrated and produced volume. It has been well translated from the Danish original that was published in 2005. It is aimed at a general readership with an interest in earth science and is excellent at explaining in layman's terms current geological concepts and theories relevant to the geology of Greenland. It is also sufficiently detailed to be of interest to the more knowledgeable reader, and includes references and further information to help those wishing for a deeper and more technical understanding.

Although more than three-quarters covered by permanent ice and snow, the exposed bedrock around the periphery of Greenland is largely free of vegetation and weathering, affording an unparalleled opportunity to study the evidence of the earth's crustal processes. Dr Henriksen has managed to achieve a skillful balance between the huge and sometimes embarrassingly clear amount of visual evidence available, and the need to condense and simplify this to the point where it makes a sensible and accurate story for the general reader.

Opening with a concise overview of the geological time scale, he uses this and his encyclopaedic knowledge of the region as a basis for organising information gathered

from the whole of Greenland; hence the sub-title of the book. Brief summaries of the field methods employed in such a vast and inhospitable area, and of the evolution of the present day landscape, lead on to the core of the book which works through all the major geological eras represented in Greenland. Structures and rock types are illustrated with excellent clarity and their relation to global features and events are explained, retaining a very good geological perspective overall. The many high quality photographs have something to show the tourist and general visitor to almost any part of the island, as well as illustrating relevant geological features described in the text. Colour is often an important aid to the field geologist, and the excellent colour reproduction in these illustrations is particularly worthy of note.

There is extensive description and analysis of features of the Precambrian eras for which southern Greenland is particularly famous. The fold belts and sedimentary basins of Archaean, Proterozoic and Phanerozoic age are all given a thorough descriptive treatment and the complex features of the Caledonian orogeny are described and explained. Younger sedimentary and volcanic formations are also described in detail and linked to global events and the development of the north Atlantic Ocean, and there are equally thorough sections on the current ice age, offshore research and exploration, and commercial mineral and hydrocarbon operations.

Although expensive in pounds sterling, this is an excellent and thoroughly recommended book for all but the more advanced research worker. (D.W. Matthews, Drummore of Cantray, Cawdor, Nairn IV12 5XY).

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**CLIMATE CHANGE AND GLOBALIZATION IN THE ARCTIC.** E. Carina H. Keskitalo. 2008. London and Sterling, VA: Earthscan. xii + 254 p, hardcover. ISBN 978-1-84407-528-7.

doi:10.1017/S0032247409008523

The publication of the Arctic Council's Arctic climate impact assessment, *Impacts of a warming Arctic*, in November 2004 was the culmination of sustained scientific focus on global climate processes and the resulting impacts in the latter part of the twentieth century and the early part of the twenty-first century. Research on impacts of climate change, and particularly that dealing with human impacts, has increasingly moved to consideration of how humans are able to adapt to change, leading to a surge in publications on adaptation and adaptive capacity.

*Climate change and globalization in the Arctic* is the latest in a series of publications on climate change, vul-

nerability, and adaptation from Earthscan. The goal of the current publication is to demonstrate the vulnerabilities that local stakeholders in the Arctic consider that they are subject to and the adaptations that they can institute. This is undertaken from a political-science perspective using case studies in the Scandinavian north, with the intent of adding a European dimension to vulnerability studies of the Arctic. More accurately, however, the book only addresses Arctic stakeholders in selected northern European regions rather than across the circumarctic. The title of the book is somewhat misleading in two ways: it does not cover the circumarctic, and it is not well integrated.

The book comprises two introductory chapters, three case study chapters, and one concluding chapter. Chapter 1 defines and discusses the fundamental concepts of vulnerability, adaptive capacity, and globalization that frame the remaining chapters. These emphasize social