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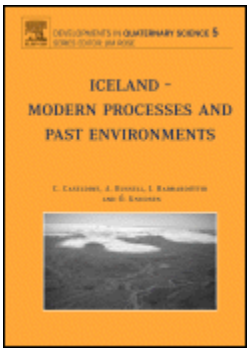
Iceland - Modern Processes and Past Environments, edited by C. Caseldine, A. Russell, J. Harðardóttir & Ó. Knudsen, 2005. Developments in Quaternary Science 5. Elsevier (for Europe, Middle East and Africa: Customer Service Department, Linacre House, Jordan Hill, Oxford OX2 8DP, United Kingdom; for USA/Canada: Customer Service Department, 11830 Westline Industrial Drive, St. Louis, MO 63146, USA). Hardbound, x + 397 pages. Price USD 132.00; GBP 83.00; EUR 120.00. ISBN 0-444-50652-7.



For a long time, Iceland has been the “Walhalla” of Quaternary researchers, and particularly of glacial geologists. In addition, it is paradise for volcanologists and those involved in geothermal energy. Due to its relatively isolated position, as a part of the Mid-Atlantic Ridge where you do not go to for just a few days, Iceland’s geology is, however, known from direct observations to only a limited group of the earth-scientific community. But those who have travelled in Iceland (and I was so lucky to do that a couple of times) always came back with wonderful stories, sometimes seemingly only to make those who had to stay somewhere else more jealous.

Iceland is some kind of magic, and many travelers’ tales are best proof. It is interesting in this context that the book contains a highly interesting contribution (though at a somewhat awkward place, sandwiched between a contribution on the variations of termini of glaciers, and another one about chemical weathering; admittedly, both have some climatic aspects) by Astrid Ogilvie about ‘Local knowledge and travelers’ tales: a selection of climatic observations in Iceland’. A both scientifically interesting and simultaneously highly entertaining chapter! Chapters like this one are dearly missed in most scientific books.

Obviously, most of the chapters follow the ‘normal’ approach to the aspects that the editors thought of sufficient interest. Apparently the editors have been very critical, possibly even unduly critical, in this respect. This has resulted in a book that contains many less chapters than its predecessors in this successful book series. The publisher decided that the physical size of the book should, however, not be accordingly smaller: the book is printed at the (fairly large) A4 size that has also been used for the previous books in the series. To avoid a book with too few pages, the letter size is significantly larger than in the previous books, and the two-column layout of the predecessors has been replaced by pages without columns. The figures are also printed at much larger sizes than usually, and in many cases this is even annoying. It seems to me that the publisher’s decision to ‘blow up’ this book - in order to make it fit in the series - was wrong. In this respect it must also be mentioned that the book’s paper is more suitable for the reproduction of the drawings than for the photographs, which have commonly insufficiently contrast in print.

The editors state in their preface that the idea for this book came from the meeting “Iceland 2000” at Keele University, but that the book also contains contributions from researchers who did not attend this meeting. They also state that “it has not proved possible to cover every aspect of relevance to the theme given the incredible diversity of the Icelandic landscape and the need to publish within a reasonable timescale”. This remark is puzzling, since four years passed between meeting and publication, so that there was ample time to collect more contributions.

And, as the editors state themselves, not even all relevant aspects are covered. Then, why are these aspects not covered?

Indeed, the lack of completeness is most unsatisfactory, and the order of the various chapters is not very logical. The first three contributions (after a foreword by the book-series editor, Jim Rose; a preface by the editors; and an introduction, also by the editors) deal with marine aspects (including sea-level fluctuations). Then follow a chapter on glacier-marginal land systems, a chapter on subglacial volcanic activity, a chapter on jökulhlaups (a typical Icelandic term!), a chapter on climatic effects of flood lava eruptions, a chapter on Holocene glacier history, the above-mentioned chapters on glacier termini, on travelers' tales and on chemical weathering (including the CO_2 budget), a chapter on soils, and a final chapter on the Holocene vegetation history. This order is a bit embarrassing. More importantly, highly interesting topics are lacking or only slightly touched upon, such as glacial sedimentation, glacial landforms, the history of the Hekla and other volcanic phenomena, sea-floor spreading and related tectonics, geysers and geothermal heat, and so on. A book that would have included such topics would have been much more satisfactory, it would have been worth its present title, and it could have been published in the 'normal' layout of the series and would still have had an average number of pages.

This what about the - largely avoidable - shortcomings. Fortunately, the book has also many high-quality aspects. These concern, fortunately, the contents. It is obvious from the various texts that most authors have used the fairly long time between the 2000 Keele meeting and the publication date to write thorough contributions. They also took, in most cases, care of interesting photographs and informative line drawings. In addition, the editors did their work well. This has resulted in informative and generally well readable contributions on interesting topics. The various chapters contain a wealth of information, which is, as a rule, well documented. And I think that the editors were wise in deciding that one overall list of references should be prepared for the entire book, rather than a reference list for each individual chapter. This does not only facilitate the finding of the reference, but it also puts each reference in the framework of more publications by the same author. I wish that this approach regarding reference list were applied to all multi-author books co-ordinated by an editor or an editorial team!

One of the spectacular aspects of Iceland is the combined presence of ice and volcanism, even in the form of subglacial volcanic activity. The chapter that is devoted to this aspect, written by the well known Magnus Gudmundsson (apart from in the reference list, all Icelandic names are written with Icelandic letters throughout the book - making reading not always easy - so that I should write the author's name here as Magnús T. Guðmundsson), is in itself worth buying the book. Gudmundsson has done much research on this topic, and it is obvious from this chapter that he has not only mastered the numerous problematic aspects involved in this complex phenomenon, but that he also loves to communicate his knowledge. The descriptions of the 1996 (Gjalp), 1955 (Katla), 1934 (Grímsvötn) and1918 (Katla) eruptions - with some catastrophic jökulhlaups - are definite proof. Reading science would be a pleasure if all authors would write like Gudmundsson does here. Obviously, my appreciation for Gudmundsson's and Ogilvie's contributions is highly subjective. It does, however, not imply that I think the other contributions of less scientific quality. They are more conform the 'classical' style, and they are scientifically sound. But I think that the Gudmundsson and Ogilvie contributions are excellent, although in very different ways, and although dealing with very different topics.

Taken all together, the book is worth to be bought, by all those who either work in Iceland or on topics with aspects that may be compared with modern Icelandic equivalents. As mentioned before, the book's main shortcomings are that some aspects are dearly missed, and that the layout is below the standard of this wonderful book series.

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