

VATNAJÖKULL NATIONAL PARK (SOUTHERN REGION): GUIDE TO A GLACIAL LANDSCAPE LEGACY. By DAVID J.A. EVANS. Reykjavík: Vatnajökull National Park, 2016. ISBN 978-9935-9343-0-7. Available from Vatnajökulsþjóðgarður/Vatnajökull National Park, Klapparstígur 25-27, 101 Reykjavík, Iceland or from Professor David J.A. Evans, Department of Geography, Durham University, South Road, Durham DH1 3LE, United Kingdom. 224 p., colour and b&w illus., foreword, notes, references. Softbound. £35.

The author describes his book as a “guide” to this impressive, one might say, unsurpassable, glacial landscape of southeast Iceland. In terms of its ease of access, a five hours’ drive from Reykjavík, and the dramatically displayed landscape resulting from climate-induced melt and retreat of the ice cap margins and its many outlet glaciers, it is incomparable worldwide. The Vatnajökull National Park, incorporating the pre-existing Skaftafell National Park, was established in 2008. Thus the east-west distance of little more than 100 km embraces Iceland’s highest mountain (Öræfajökull, an ice-capped strato-volcano at 2109 m asl), Europe’s largest ice cap, and an immense array of glacial and fluvio-glacial landforms: more than any normal textbook could accommodate.

Professor Evans has not only produced that “more than normal” textbook, he has also provided a magnificent array of maps, diagrams, tabulated data, and photographs, mostly in colour. Many of the full-page colour photographs stand independently as breathtaking works of art that I long to have on my living room walls. His written expression is excellent and parallels the outstanding exposition of his unsurpassed scientific competence.

The book is colour-coded into its major sections: 1) Introduction to a flagship glacial research location; 2) A brief history of glacier research; 3) Mapping of glacier snouts and their forelands; 4) Fire and Ice: where volcanoes

meet glaciers; 5) Glaciology; 6) Glacial-geomorphology; 7) Glacial land systems; 8) Concluding remarks; 9) Twenty glacial excursions, illustrated with routes, recommended stops, maps, air and ground photos; 10) References and general readings. My only negative comment is that the text on many of the illustrations requires a magnifying glass, although this is understandable given what must have been an expensive production cost. This reviewer has learned that it may be possible, eventually, to adjust the inadequate text size online.

The ease of access to this area, together with its extensive array of glacier and ice cap attributes and glacier forefield landforms, makes it a paradise for research and for teaching at all levels. Also, with the rapid acceleration of Iceland’s popularity as a tourist destination, the southern Vatnajökull region has become a prime attraction, particularly the iceberg-choked lake, Jökulsarlón, and the impressive ice- and snow-mantled alpine landscape. This beautifully produced “guide” should become an essential possession of more environmentally oriented tourists. But mass tourism has a serious downside: the real prospect not only of environmental damage to delicate glacier forefield landforms, many being constructed even as the impacts of climate warming accelerate, but also of damage to the large nesting colonies of skua, tern, puffin, and the innumerable seals frequenting the shoreline and penetrating into Jökulsarlón. The overall environment is the more susceptible to damage, as the author explains, because the southern boundary of the park, with some exceptions such as the pre-existing Skaftafell Park, was drawn along the 2008 Vatnajökull border. Even in the few years since 2008, the ice cap and glacier margins have retreated considerably, leaving a form of no man’s land of precious new and delicate landscape treasures. The 1000-year-old farming tradition now desperately needs a strong financial supplement from tourism, in the form of glacier excursions, boat rides, skidoo and jeep trips on the ice cap, and mountaineering. But these activities, together with landowner disputes and inadequately funded park maintenance, make the situation for wildlife and the environment still more problematic.

Another especially important element of the book is part 2, the brief history of glacier research. The area provides a virtually unparalleled history going back over a thousand years to the first Viking settlements. While the early history is scant, the author emphasizes the claim that Iceland’s climate a thousand years ago was probably as warm, if not warmer, than today. And Iceland deserves recognition for having produced the world’s first glaciologist, Dr. Sveinn Pálsson. During his ascent of Öræfajökull in 1793, looking down on today’s still spectacular ogives (curved bands) of Fjalljökull, he declared that the ice moved in a semi-melted, or viscous mass (this reviewer believes that he learned this from the Skaftafell farmers!). He produced the first classification of Iceland’s glaciers, introduced the concepts of “snowline” (equilibrium line altitude) and albedo, but his considerable tome was not translated into English or other languages until 2004.

A century after Sveinn Pálsson's time, in 1931, the local farmers began to measure many of the glacier snouts each year under the guidance of Jón Eyþórsson, Iceland's chief meteorologist of the time. These annual measurements, maintained today by the Icelandic Glaciological Society, provide an exemplary record. Similarly, this area is the "home" of the glacier outburst flood that discharges periodically from Skeidarárjökull. The term "jökulhlaup" (glacier leap) entered the glaciological literature, though it is somewhat surpassed today by the abbreviation "GLOF" (glacier lake outburst flood), which stemmed from similar, more recent catastrophic events in the Himalayas and elsewhere. The combined impressive glaciological and meteorological record, the folk history, and the extensive Icelandic and visitor post-World War II research, render the area vital to our understanding of the impacts of continuing climate warming.

Professor Evans demonstrates via his "guide" that action should be intensified to improve environmental protection of the entire area. This reviewer has had the privilege of a lifetime's association with this region (1952 to 2016) and so combines his concern with that of the author that more official action is needed to preserve and exploit the legacy. I confess that this review mixes my personal convictions with the wider political objective for which no apology should be needed. The book, in itself, is a treasure that deserves a wide audience. If it activates the conservation audience, so much the better.

Jack D. Ives
Adjunct Professor of Geography and
Environmental Studies
Carleton University
412 Thessaly Circle,
Ottawa, Ontario K1H 5W5, Canada
jack.ives@carleton.ca