



Geology underfoot, in Yellowstone country, by Marc S. Hendrix, 2011. Mountain Press Publishing Company, P.O. Box 2399, Missoula, MO 59806, United States of America. Paperback, 320 pages. Price US\$ 24.00. ISBN 978-0-87842-576-1.

Perhaps after the Great Canyon, Yellowstone Park is the most famous park in the world. This is hardly surprising: it was established in 1872 as the world's first national park, largely because of its geological wonders; the spectacular geyser 'Old Faithful', which erupts at precisely predictable times, is only one of them. Since its establishment, ever more visitors have come to this park. Nowadays, the National Park authorities have, unfortunately, be forced to limit entrance, as far too many people want to come to this over 5000 km² large park to enjoy its beauty and spectacular phenomena.

All people that have had the chance to visit this park (and I was so fortunate to do so twice) should be aware that they were part of a "lucky family", and it cannot be excluded that our children or grandchildren will be much less lucky: most of the central part of the park lies within a huge caldera (roughly 60 x 50 km), formed by the collapse of a volcano that is still active. There are several signs that magma is rising again in the underground, which might result in a new, probably again explosive, outburst. Such an event would not only make the park inaccessible, possibly for a long time, but it might also cause numerous casualties, large economic damage, and a tremendous disaster for flora and fauna in this truly amazing scenery. It may therefore be wise to visit Yellowstone Park as soon as possible. And this certainly cannot be done better than with this book. It is not a scientific book; rather it is aimed at a wide public, but it contains so much geological (and other) information that having this book at hand will make even professional geologists more enjoy the park.

After a preface and acknowledgements, the book contains not less than 20 chapters, which are followed by an epilogue, a glossary, sources of more information, GPS coordinates for stop locations, an index and a short introduction to the author. The author, Marc Hendrix, a geology professor at the University of Montana, must have spent many, many hours in Yellowstone Park, considering his detailed information, not only about some well-known wonders such as Mammoth Hot Springs, but also about remote places that are characterized by overwhelming landscapes, beautiful flora and fauna, and numerous earth-science features that are perhaps not always spectacular but always highly interesting.

A book review like this cannot spend sufficient space to deal in detail with the contents of all these 20 chapters. I feel, however, that at least their titles should be mentioned, if only to make the reader aware of the uncommonly great variety of geological phenomena that are to be found in this park, where one could easily spend a lifetime, still regretting that not all wonders could be discovered. The chapters are: (1) The missing record of deep time, (2) Invasion of the trilobites, (3) Lime record of shallow seas, (4) The Cretaceous Interior Seaway, (5) Mountains reduced to rubble, (6) Basement rock on the rise, (7) Strange brew, (8) Debris flow deposits, (9) Fossilized forests, (10) From playa lakes to rushing rivers, (11) Arrival of the hot spot, (12) The Yellowstone volcano erupts again!, (13) The youngest eruptions, (14) Ice sculptures along the Beartooth highway, (15) Rivers of dirty ice, (16) Melting ice and sliding shale, (17) Terraced travertines, (18) Siliceous sinter, (19) Hydrothermal explosions, and (20) The night the ground stroke. Did I say too much? I don't think so: almost all earth-science disciplines are represented in these chapters that roughly follow an order that introduces to reader to the historical geology of the park.

In short, the contents are already reason enough to buy this book. Moreover, the book is easy (and interesting) reading and the numerous full-color illustrations (mainly beautiful photos) are well printed, just like the text. The relatively small size of the book makes it a true companion for a trip. I can only look forward to a new opportunity to visit Yellowstone Park once more, with this book at hand!

A.J. (Tom) van Loon
Geological Institute
Adam Mickiewicz University
Maków Polnych 16
61-606 Poznan
Poland
e-mail: tvanloon@amu.edu.pl; tom.van.loon@wxs.nl