



Book review: Maresch and Schertl's *Rocks*

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Published: 27 February 2025

Maresch, W. and Schertl, H.-P.: Rocks – Description, Identification, Nomenclature, Genesis, 1st English edn., 408 pp., Schweizerbart'sche Verlagsbuchhandlung (Nägele u. Obermiller), Stuttgart, Germany, ISBN 978-3-510-65554-0, EUR 34.90, 2024.

Rocks – Description, Identification, Nomenclature, Genesis provides a compact, up-to-date, and informative overview of the world of rocks, their classification, and their formation. The main focus of the book is a detailed description of approximately 450 rock types, which is supported by an enormous number of excellent, high-quality photographs. The first edition of the book was published in German in 1987, and its extraordinary popularity is evidenced by the fact that a fourth edition has recently been published, with the third edition from 2016 already being out of print. As the book has generated great and lasting interest for more than 3 decades, the first English edition was long overdue. The English edition has been specifically modified for an international readership and follows the recommendations of the International Union of Geosciences (IUGS), incorporating the relevant scientific advances. The authors have succeeded in comprehensively presenting the fascinating diversity of rocks in a logically structured manner. Particularly noteworthy are the detailed and nice illustrations, which, together with the informative texts, provide readers with an understanding of both well-known and lesser-known rock types. Whether as a reference work or as an identification book, the reappraisal of the topic of “rocks” for a broad, interested, and knowledgeable readership is excellently implemented.

The work is divided into three parts. The first part includes an introduction to the three principal rock groups (magmatic, sedimentary, and metamorphic rocks) and their genesis in the context of modern plate tectonics. Subsequently, there are chapters on the structure of the Earth, the rock-forming min-

erals, and the structures of the different rock groups. The second part deals with the classification and formation of rocks. Magmatic, sedimentary, and metamorphic rocks are systematically presented. Many excellent photos and coloured illustrations contribute significantly to the visualisation of the facts. Whether it is the QAPF double triangle (quartz–alkali feldspar–plagioclase–feldspathoids) for magmatic rocks, the concept of magmatic differentiation via fractional crystallisation introduced by Bowen, the grain-size classification of siliciclastic sediments, or the metamorphic facies diagram, the essential diagrams, without which a reasonable classification and understanding of rocks would not be possible, are presented and explained in detail.

The third and main part of the book represents a systematic description of magmatic, sedimentary, and metamorphic rocks. Each description contains a rock classification and information on the constituent minerals, characteristic features, formation, and occurrence of the rock. This is supplemented by interesting details on the origin of the name and the practical significance. The different rock groups are colour-coded in the front section of the book, which facilitates searching for a specific group. Supplementary diagrams such as the basalt tetrahedron from Yoder and Tilley or the classification of carbonate sedimentary rocks from Dunham ensure that the rock descriptions are successfully integrated into the petrological concepts. Images of different rock textures demonstrate to the readership the wide variation in the appearances of rocks. In this context, the authors repeatedly refer to the recommendations of the IUGS on rock classification. Rocks from world-famous localities – such as the garnet peridotite from Alpe Arami (Switzerland) or the pyrope–quartzite from the Dora Maira Massif (Italian Western Alps) – are displayed, but equally spectacular rocks from lesser-known places, such as a sapphirine–phlogopite gneiss from Fiskensæset (Greenland) or a sodalite ferrocarnatite from Cerro Sapo (Bolivia), are also presented. For a

quick overview with respect to rock classification, schematic QAPF double triangles for magmatic rocks and facies diagrams for metamorphic rocks are included in the text. A variety of rare rock types are also presented and explained. At the end of the third part there is a brief description of meteorites. Finally, the properties of the most important rock-forming minerals are listed in tabular form, and flow charts for the various rock groups are provided as identification aids.

In summary, the authors Maresch and Schertl can be commended for a superb, compact, and highly informative book, with which they guide readers through the fascinating world of rocks. Both the fundamentals of geology and the petrographic variety of rocks are presented in a way that is understandable to a general audience. The book will be very useful for rock identification in the field or for reference, for both geoscience students and interested laypeople. Last but not least, even readers with expertise in petrology will find new aspects of interest and will be inspired by the beautiful photos. Thus, the work can be recommended without reservation to all people interested in rocks. Information about the book is also available online at the following web address: http://www.schweizerbart.de/publications/detail/isbn/9783510655540/Maresch_Schertl_Rocks?l=EN (last access: 21 February 2025).