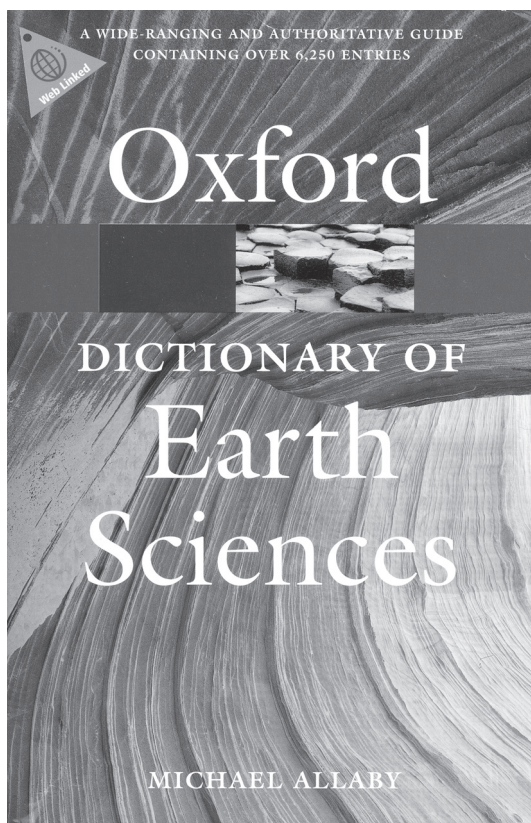


Oxford dictionary of earth sciences (3rd ed.), edited by Michael Allaby, 2008. Oxford University Press, Great Clarendon Street, Oxford OX2 6DP, England. Paperback, 654 pages. Price GBP 11.99; USD 18.95. ISBN 978-0-19-921194-4.



For a long time—more or less the period of the so-called ‘iron curtain’—there was little exchange of information between western earth scientists and their colleagues from central and Eastern Europe. The former were, as a rule, incapable of reading publications in Russian, Polish or any other central European language, whereas the latter could financially not afford to buy western literature. For one reason or another, journals published by western publishing companies, scientific organisations and universities have won the ‘battle’, and earth scientists from central and eastern Europe now must publish in these journals if they want to have a prominent academic career. This has many consequences, one of which is due that, during the period that East and West had hardly any scientific exchange, different terminologies developed. Consequently, one of the greater problems that non-western earth scientists face if they want to publish an article in an international journal, is that they should use ‘international’ terminology rather than their own (and it must be emphasized here that

scientists from central and eastern Europe are unduly eager to introduce new terms!).

This is the more important, because the ongoing specialization in science, including the earth sciences, poses already great terminological problems in itself. The number of terms grows almost with the same speed as the number of publications, and hardly any earth scientist is still capable of keeping pace with the developments in his own, narrow specialism. On the other hand, innovative research requires combination of data from various disciplines. It is therefore not surprising that there is a constant need of encyclopedias, ranging in coverage from (in principle) the entire earth sciences (Selley et al., 2005) to specific earth-scientific disciplines such as sedimentology (Middleton, 2003). Such encyclopedias are expensive, however, and commonly out of reach of the average researcher, and certainly for scientists in central and eastern Europe. For this reason, somewhat less extended works are published. Well known, particularly in the U.S.A., is the Glossary of Geology (Neuendorf et al., 2005), whereas in Western Europe the Oxford Dictionary of Earth Sciences is more commonly used.

This dictionary has now been updated, resulting in a third edition. It contains now over 6250 entries, many of which are new, particularly in the fields of physical geography and geomorphology. It also includes some 130 line drawings, 50 of which are new. The previous, second edition, published in 1999, was already an excellent work. A review in *Nature* stated: 'I marvel at how the editors have compressed so much so clearly.' What should then be the judgement about this third edition? Of course, one can only agree that this is again a marvelous piece of work. Not only are the over 6250 entries written in a clear, concise style that is useful for specialists and well understandable for non-specialists, but this new edition has also a number of most useful appendices, some of which are new. They include an updated bibliography, a revised geological time scale, lunar and Martian time scales, stratigraphic units, wind-strength scales, and SI units. Particularly useful is a newly added appendix of recommended web links on the dictionary's

companion website (www.oup.com/uk/reference/resources/earthsciences); the sites that can be accessed through these links are certainly worth attention of all earth scientists.

It thus is clear that this third edition is most useful, but a critical reader (and I am one of them) will nevertheless easily find that significant improvements are still possible. Part of this may be due to the personal interests (and hobby horses?) of the editor, who selected 30–40 contributors who, however, come for a large part from the same universities. Contributors from more universities (and particularly from more countries, in both East and West) might have had different (additional) inputs. It is in this respect also remarkable that Oxford University Press mentions that the entries are 'on geology, oceanography, volcanology, mineralogy, palaeontology, and planetary science, as well as climatology, geochemistry, and petrology.' Are, for instance, mineralogy and palaeontology not an integral part of geology? Moreover, the above statement shows a clear bias towards physical geography and to geological disciplines that are related to endogenic processes.

Why is sedimentology not mentioned? The reason is easy to find: relatively little attention is paid to this 'exogenic' discipline of the earth sciences. Sedimentological topics that currently receive much attention are neglected (as an example, the term 'seismite' is lacking), and sedimentological topics such as heavy minerals that now undergo a strong revival (Mange & Wright, 2007) are not mentioned either. For sedimentologists this dictionary may therefore be somewhat disappointing. The same holds for one of the other fundamental 'exogenic' earth-science disciplines: stratigraphy. Most influential with respect to, particularly, chronostratigraphic terminology, have been the Elsevier wall charts, of which a sixth edition has recently been published (Haq, 2007). The bibliography of the book refers, however, only to the 3rd edition (Van Eysinga, 1975), thus neglecting the many improvements and additions of the 4th and 5th edition of this wallchart. I consider this a serious shortcoming. It is interesting in this context that Appendix A (Stratigraphic units as defined in the North American

Stratigraphic Code, 1983) uses the terms 'Early' and 'Late' for both epochs and series, whereas the terms 'Lower' and 'Upper' should be used for series, because these are not chronostratigraphic but lithostratigraphic units.

It is certainly possible to find more of such shortcomings. I mention the above ones because they could have been avoided so easily, if the text for this new edition would have been read critically by somebody with a "fresh" view. Let's hope that the fourth edition will overcome such shortcomings. It is already a very good dictionary, for a price that makes it easily reachable for each individual earth scientist, also in the countries of central and Eastern Europe where salaries are still far below those of their western colleagues.

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