



Pohl: Economic Geology 2nd Edition (Book Review)

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“Economic Geology” (Fig. 1, Schweizerbart, Stuttgart, ISBN 978-3-510-65,441-3, 94–€) is the second edition of Walter Pohl’s book about all aspects of ore deposits and economic geology, which was first published in 2011. This book (in English) is the successor of the outstanding German publication “W. u. W. E. Petrascheck’s Lagerstättenlehre,” which was published in five editions between 1950 and 2005. It has been expanded, and now has 755 pages with 305 figures, 31 tables, and 63 colour plates; the full subtitle is “Principles and Practice – Metals, Minerals, Coal and Hydrocarbons – Introduction to Formation and Sustainable Exploitation of Mineral Deposits”.

As a young student of economic geology at Clausthal University of Technology, Germany, it was essential for us students to know the “Petrascheck”, as it was called, but all of the copies in the library were always in use. So we stood for hours in front of the photocopier to make our own – undoubtedly illegal – copy of the book. Holding my own copy of the newest, revised edition of Walter Pohl’s “Economic Geology” in my hands is therefore a pleasure and obligation for me. Walter Pohl’s newest book comprises seven chapters in four parts, plus an introduction and an epilogue. Of great value is that the book considers both deposit types, in a general sense, and the single metals or minerals in a detailed manner. In addition, Walter Pohl describes the “practice of economic geology,” which I consider helpful for those who want to know what needs to be done to identify new deposits. Explanations in 25 boxes help the reader to understand the overall connections and selected deposits.

“Economic Geology” can be considered the most up-to-date general textbook about ore deposits, non-metallic rocks and minerals, and salt deposits. It has 26 well-organized index pages and 78 pages of the latest references – and I have the feeling that the last one was added the day before

the book went into print. In addition, the book also covers the principles of economic geology, fossil energy, and raw materials, as well as petroleum and natural gas deposits. Walter Pohl includes all relevant aspects of economic geology in a broader sense and with about 1000 references, he allows the reader to look up all the details of the ore deposits he covers – including contradicting hypotheses about various deposits. Adding the industrial minerals and rocks to the book is an excellent add-on and increases the value of the book for a broad readership.

I very much liked the personal touch of the book. Comments such as “I suggest that the Ore Geology authors regularly should include sections on the classification of their examined deposit” or side views to Charles Darwin (p. 151 and 448) and Karl Popper (p. 152) make reading the book fun. Pohl also asks the reader in a familiar manner: “And have you read Pitcairn’s et al. (2014) gold deposit forming subduction conveyor belt in New Zealand?”. Virtually every page included these personal “intrusions,” which kept me laughing, especially when I came to the section about Mt Isa and the surrounding ore deposits there, where the author indicates that you need to go to elephant country if you want to hunt for elephants (p. 449).

Some inconsistencies and typos – which have no influence on the quality of the book – should be corrected in the next edition. The text uses the symbol ~ instead of \approx for “is approximately equal to” and writes °C without a space between the number and unit. In addition, sometimes the author uses t/yr, then t/y and t/year – the correct unit would be t/a. The book also has a section about non-metallic elements and covers the metals Ca, K, and Na there – this should be somehow rephrased. And arsenic is called a heavy metal even though it is not a metal, but a semi-metal. In the index, in addition to the general index and the location index, it would be nicer to have the general index separated into two sections: Deposit Types and Elements, so that finding a single entry would be much easier. Finally, the reference sections should be consistently formatted throughout with, e.g., journal titles either printed in full or abbreviated, rather than a mixture of both.

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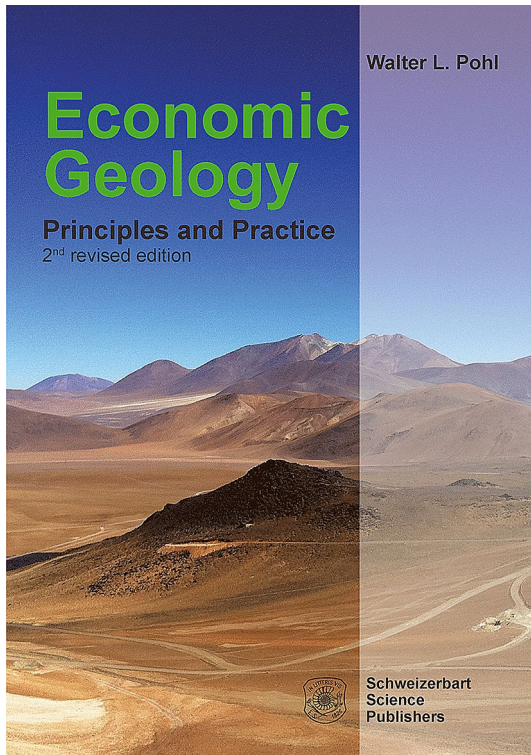


Fig. 1 “Economic Geology” book cover

Summarizing, I want to recommend this easy to read and valuable book to everybody in the world who is involved in economic geology and mining: students, teachers, researchers, professionals, NGO’s, and administrators alike. Let me finish this review with Walter Pohl’s words, which make clear why reading this book is important: “well-managed extraction of minerals has every potential to contribute to the well-being of mankind, to increase material prosperity, to maintain a sustainable and vital social and natural environment, and peace.”