

Geoenvironmental Mapping—Methods, Theory and Practice

edited by P.T. Bobrowsky, 2001. A.A. Balkema Publishers, P.O. Box 1675, 3000 BR Rotterdam, The Netherlands; 725 pages, hardback; US \$ 139.00; ISBN 905410 487 2.

The book consists of an introduction, thirty-two articles and an alphabetic index. It is copiously illustrated but, unfortunately, roughly one tenth of the figures are virtually unreadable due to either excessive scale reduction or reproduction in gray-tones from colored maps or remote-sensing imagery.

Most of the articles concentrate on some particular aspect of the physical (= abiotic) environment exclusive of oceans and atmosphere. Accordingly, the geoenvironment concept appears to refer to: (1) the management of resources, and (2) the natural and anthropogenic processes that affect the solid Earth as a habitat of human beings. As a result, the present volume has become a compilation of case studies on a great variety of topics such as environmental geochemistry related to waste-rock dump, acid mine-drainage and dispersion of metals into lake basins, seismically induced earthquakes and landslides, subsurface geologic mapping, mapping of aggregate potential, contribution of remote sensing to geoenvironmental mapping, bathymetric-data processing for evaluating the effects of changing ocean levels on the landscape, contamination of groundwater, volcanic activity, subsidence due to drainage, groundwater extraction, mining or rock dissolution, medical geology, mapping of geological radon potential and tsunami run-up elevations.

From a perusal of the text it is soon learnt that the word “mapping”, found in the title of the book, functions merely as a *trait d'union* that should bring the papers under a common denominator. In fact, in most of the contributions, maps are routinely included along with other means of data presentation such as cross-sections, diagrams, photographs, tables or graphs.

The various papers, though unmistakably related, do not form a unity in the way that chapters in a textbook (or novel for that matter) are knit together. In the introductory section of the book, this problem is discussed by the editor. There, the contributions are briefly reviewed and grouped into eight classes (“sets”) having some measure of communality. This tentative organization of the text is useful as a guide to the reader but it does not explain why the articles are referred to as “chapters”.

Two strong points of the book are: (1) its catalogue-like setup offering a good overview of the methods, concepts and trends prevailing in the vast field of geoenvironmental research, and (2) the presence of a (restricted) number of articles in which the authors succinctly expound the basics of their discipline or add quality otherwise, so that their contributions reach beyond the level of a routine case study. One example is the article by O. Selinus, who introduces the general principles of medical geology. Another one is the contribution by José Lugo et al., in which human and geological history of the Basin of Mexico are admirably blended.

From the first point just above it follows that “Geoenvironmental mapping” qualifies as an up-to-date and comprehensive book of reference. From the already noted lack of internal coherence it also follows that it cannot be recommended as a regular textbook for students.

Jacques Schwan
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