



Journal of Sedimentary Research

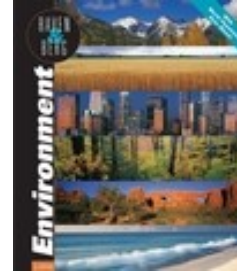
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Environment (5th ed.), by Peter H. Raven & Linda R. Berg, 2006. John Wiley & Sons, Ltd., The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom. Softbound, xvii + 597 pages + 55 pages appendices, glossary, photo credits, other credits, and index. Price GBP 64.50. ISBN 0-471-70438-5.



The 5th edition of this book is not a sedimentological work, not even a geological one. Yet, it deserves attention from earth scientists, if only because it will help them realize how environmental scientists consider geology (and sedimentology). The earlier editions of this textbook have been highly successful, and one might therefore consider this book as representative of environmental views and insights.

Earth scientists might be disappointed about the attention that is paid to their science. The book is subdivided into 7 parts (Humans in the Environment; The World We Live In; A Crowded World; The Search for Energy; Our precious resources; Environmental Concerns; Tomorrow's World), and only 2 out of these 7 deal (for some part) with the abiotic environment. Take Part 4, about The Search for Energy. It comprises three chapters: Fossil Fuels, Nuclear Energy, and Renewable Energy and Conservation. Although I did my Ph.D. work in a coal basin, I think that the chapter on nuclear energy (in which sector I have worked for some 15 years) gives a better impression of the nature of the book. It overemphasises the risk of this energy source (and does not compare it with the many more casualties per unit of electricity generated by fossil fuels); it neglects that breeder reactors fuelled with thorium-derived plutonium could generate all energy (not only electricity!) in the whole world for at least 1,000 years; it provides incorrect information about the relationship between nuclear energy and nuclear weapons (it requires extremely sophisticated technology to produce weapon-grade uranium or plutonium); it neglects the progress made in underground disposal of high-active waste, thus changing this aspect into a non-problem (if dealt with sufficient geological expertise); and it forgets (?) to inform the reader that the Chernobyl accident had long before been predicted in western literature because the design had a fundamental shortcoming (the reactor type might be compared with a car that needs to be accelerated before you can use the brake).

In fact, when I read other parts of the book, I got similar impressions. It seems to me that both authors—whose scientific standards are not to be discussed—have used this book to advocate viewpoints of environmentalists, rather than trying to find out how things really are in those fields where they are no true experts. In this respect the book is “fashionable,” just like an organisation such as Greenpeace, frightening people with horror stories about extreme global warming, even though the warming is far inside common natural fluctuations, and even though it is more likely that in 10,000 years we will face an ice age rather than a greenhouse. As Professor Kroonenberg mentioned: Greenpeace should advocate the burning of fossil fuels if they want that the climate of our childrens' children is still bearable at latitudes where the “rich” populations are now concentrated.

The picture of the book that I have sketched above is fairly negative. It would not be justified to leave the reader of this review with such an impression, because the book contains a wealth of data. In addition, these data are, as a rule, placed in a wider context, which makes clear how the various parameters that determine our environment interact. Particularly where the field

of both authors is concerned (they are both botanists), the book reaches high levels, from both a scientific and an educational point of view. The latter is important, as the book is aimed primarily as an introductory text for undergraduate students, particularly—as stated in the preface— “for those majoring in education, journalism, government and politics, and business, as well as the traditional sciences. “This statement should be an eye-opener: it is not a scientific work, it is even not aimed primarily at students in the natural sciences. It explains why the texts—that are easily readable, and that are accompanied by line drawings and photographs of mostly sufficiently good quality—may make experts frown. Earth scientists should certainly do so. Not because of the mistakes that, indeed, are present, but rather because this book is one more proof that the term “environment” is still commonly used as synonymous with “biological environment.” It is time that earth scientists wake up and convince the world that the biotic environment thanks its existence to the abiotic environment, which therefore might be considered as even more valuable. And which should get due attention.

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