

of attempts to bring scientific vigour to the measurements that were made, and to use the emerging data to generate interesting and fruitful hypotheses. Time and again, the reader has the feeling that this study sets the standard for the many others of its type which are badly needed, for practical as well as academic purposes; in addition, the book will be of considerable use for teaching in numerous subjects, especially ecology and environmental science.

A fascinating glimpse into the minds (and hearts?) of the Authors is given in their 'Epilog', which consists of two-and-a-half pages of quotations from Aldo Leopold's *Sand County Almanac*: The inclusion of this material leaves me in no doubt that the lessons from this study—and especially the data from the watershed manipulation experiments which are to come in later volumes—are meant to be applied in the service of environmental conservation.

Ian G. Simmons
(Bristol, United Kingdom)

Systems Analysis of Mediterranean Desert Ecosystems of Northern Egypt (SAMDENE), by MOHAMED A AYAD. (Progress Report No. 4, Vol. II: Animal and Socio-economic Studies.) University of Alexandria, Alexandria, Egypt: 27 × 21 × 2.3 cm, variously (i.e. sectionally) paginated (mimeogr.), figs & tables, stiff paper cover, [no price indicated], 1978.

This is a collection of reports of work in progress (volumes on plant studies and soil studies/climatic records have also been published) on the impact of various land-use types upon desert ecosystems. Volume II contains sections on vertebrates (Mammals and Reptiles); invertebrates (epigeal and soil fauna); National Parks and nature protection in the northwestern coastal zone of Egypt; chemical analysis of animals; the flow of energy in the western desert, and socio-economic aspects.

The contributions consist either of primary data which will be of interest only to specialists, or outlines of possible study programmes (e.g. the last three topics) without any new substantive material. Nowhere is there any systems analysis of the type we have come to expect for instance from the Van Dyne school, and we may suppose that this will appear in a subsequent volume.

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Greenhouse Management, by J. J. HANAN, W. D. HOLLEY & K. L. GOLDSBERRY. (Advanced Series in Agricultural Sciences 5.) Springer-Verlag, Berlin-Heidelberg-New York: xiv + 530 pp., figs & tables, 24 × 17 × 2.7 cm, DM 94 or US \$47, 1978.

The advance in greenhouse technology in the last twenty years has been unprecedented, and the present volume is a major specialist work produced by three experts from the Department of Agriculture, Colorado State University. It is comprehensive in its scope and brings together the economic and technological aspects of a subject that should be of more than minor interest to students of environmental conservation.

The object of growing in greenhouses is to produce high-yield crops under ideal and controlled environmental conditions. It has become a highly complicated

matter, with its own special technology; but, as the Editors point out, for many years the greenhouse grower, manager, and student, have lacked an up-to-date textbook. This has now been provided in a volume that can be confidently recommended to all those who are involved in this vocation.

The book is well-indexed and there are comprehensive references. Perhaps some of the illustrations could have been of better quality, for a lack of clarifying detail is often associated with the reproduction of black-and-white photographs. This does nothing, however, to diminish the overall value of this work, which would find a ready place on the bookshelves of all who are involved in this expanding industry.

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Energy and Reality: Three Perceptions, by JAMES W. BENSON. Institute for Ecological Policies, 9208 Christopher Street, Fairfax, Virginia 22030: 38 pp., 20.6 × 19.5 × 0.3 cm, paperback, \$1.50, 1977.

Environmental Impact of Nuclear Power-Plants. Proceedings of a Conference held 26–30 November 1974, Edited by R. A. KARAM & K. Z. MORGAN. Pergamon Press, New York-Toronto-Oxford-Sydney-Braunschweig-Paris: ix + 546 pp., figs & tables, 28.5 × 21.5 × 3.5 cm, US \$35, 1976.

The intimate interactions between energy and environment are nowhere better exemplified than by the perceptive observations of James Benson, from whom we have the following:

A. The energy problem is essentially a problem of developing new supplies to meet the ever-expanding energy demands of a growth-oriented consumer society: simultaneously, conservation technology needs to be adopted to reduce wasted energy.

B. The energy problem is basically a matter of increasingly intolerable social, environmental, and economic, costs of continued energy usage. Energy demands need to be cut, with changes made equitable by supporting legislation.

C. The energy problem is but one manifestation of a far more fundamental crisis involving nothing less than the basic assumptions and goals of all industrialized societies. Radical changes in our values and institutions must be made soon in order to move to a more democratic and ecologically sustainable society and to avoid global catastrophe.

The environmental impact of nuclear power-plants was the subject of a conference held at the School of Nuclear Engineering of the Georgia Institute of Technology, which, despite being overshadowed by more recent events—such as the Harrisburg and Three Mile Island incidents—provides a broad survey of the issues of plant-site selection, ecology, radioactive waste, thermal pollution, the preparation of environmental impact statements, and cost-benefit analysis.

This rather heavy diet is relieved by enlightened and enlightening contributions from such notable figures as Eugene P. Odum and Beatrice E. Willard, which make it worth returning to.

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