

activity that involves "the use of ideas to transform the material and nonmaterial world" (p. 35). He sets forth 30 principles of technology that he contends "do not tell us what technologies to use [but rather] the kinds of questions we should ask in order to select the best technologies and obtain maximum benefit from them" (p. xii). DeGregori champions the thesis that life in general and human life in particular have evolved, not merely by living within limits, but by overcoming them, and that the technological enterprise that creates resources should be viewed as part of this process.

Whereas DeGregori readily admits that new technologies create new problems while solving old ones, he contends that technological progress has occurred because the new problems created by the technology are less harmful to the human enterprise than those solved. Ecological pessimists, in contrast to technological optimists such as DeGregori, contend that some of what is now called technological progress will be called ecological disaster when the long-term consequences of using the technology and future technologies are taken into account.

The basic issue of "whether our current practices are not only expandable, but more important, sustainable" (p. 112) is only briefly discussed by DeGregori, whose major thesis is that the solution to the problems created by technology is more technology. DeGregori goes so far as to argue that if the cruel choices outlined in the scenarios of the ecologists Hardin and Ehrlich come true it will be due to the lack of technology (p. 218). I view this one-sided emphasis on technology as the solution to our problems as a major shortcoming of this book.

DeGregori fails in his stated goal of ascertaining the kinds of questions we should ask in order to select the appropriate technologies for achieving improved and sustainable lifestyles. Biologists and others concerned with the development and use of appropriate sustainable technologies for improving and maintaining the quality of human life will find the guidelines for making decisions developed by Garrett Hardin in his 1985 book *Filters Against Folly* to be far more helpful than any guidelines found in *A Theory of Technology*.

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KEY ENVIRONMENTS: ANTARCTICA.

Edited by W. N. Bonner and D. W. H. Walton; General Editor: J. E. Treherne; Foreword by HRH The Duke of Edinburgh. Published in collaboration with the International Union for Conservation of Nature and Natural Resources by Pergamon Press, Oxford and New York. \$23.50. x + 386 p.; ill.; index. 1985.

It is especially appropriate that "the last place on earth" should be included in this series published in collaboration with the IUCN. Unfortunately, this

remote and harsh environment is under threat. The great whales are reduced to virtual extinction, krill are being harvested, and economic development is a possibility. The difficulty of access, the high costs of working in the cold, dry climate, and the lack of known, rich mineral resources combine to inhibit exploitation and to provide time to ensure that one of the goals of the Antarctic Treaty, to preserve Antarctica for scientific research, will be realized. But scientists themselves represent a threat; the fragile environment is slowly but surely becoming contaminated with the effluvia of a technical civilization. This problem of conservation and exploration is explored in the final chapter of this book.

The other 22 chapters are grouped into 7 major themes: history and exploration in antarctic biology; physical geography, including climate, geological evolution, and soils; terrestrial habitats, with descriptions of vegetation, invertebrates, and inland waters; marine habitats, describing plankton, benthos, fish, and cephalopods; birds and mammals, discussing seals, whales, oceanic birds, and penguins; the sub-antarctic islands; and food webs and interactions. Antarctica, defined as the area south of the Antarctic Convergence, the area in which Antarctic upper cold water sinks and mixes with the warmer sub-Antarctic surface water, includes many islands where vegetation and freshwater communities are more extensive and diverse than those on the continent. Terrestrial habitats are invertebrate habitats; the vertebrates are marine. The marine benthos lacks brachyuran crabs but has marvelous, giant isopods; brood protection is widespread.

The book is primarily descriptive; I would have liked much more discussion of the physiological ecology of antarctic organisms and a greater treatment of antarctic biota in relation to ecological theory, such as life history tactics. But the purpose of this book is to describe the environment and it admirably achieves its goal. The information is extensive, fascinating, and well illustrated. There is much that is useful for general ecology classes. Certainly anyone interested in antarctic research must start with this book.

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THE STATE OF THE WORLD'S PARKS. *An International Assessment for Resource Management, Policy, and Research.*

By Gary E. Machlis and David L. Tichnell; Foreword by Hal K. Eidsvik. Westview Press, Boulder (Colorado). \$28.85. xv + 131 p.; ill.; index. 1985.

It is a common practice among conservationists and others to measure the "environmental consciousness" of a country by the percentage of its land area that is set aside in the form of national parks or other types of reserves. This is equated by many people to the minimum area preserved in perpetuity for