that is precisely one of the most stimulating features of the book; a class could easily spend a profitable hour discussing any randomly selected page. And one cannot help but respect the informed judgments of one of biology's great scholars who, in his 94th year, speaks with authority on an astonishingly broad range of biological, historical, and philosophical subjects, with analytical acuity and with undiminished, enthusiastic devotion to the diversity of organisms and the study of life. Surely Mayr describes himself when he writes, "[b]eing a biologist does not mean having a job; it means choosing a way of life" (p 44).

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GREEN SPACE, GREEN TIME: THE WAY OF SCIENCE. *By Connie Barlow. New York: Copernicus (Springer-Verlag).* $25.00. xxvii + 329 p; ill.; index. ISBN: 0-387-94794-9. 1997.

Traveling along a highway in Iowa, you drive past some butterflies. Two years later, a few butterflies fly by your window on a seventeenth floor in Manhattan. Most people wouldn't have noticed the butterflies or cared what species they were. Connie Barlow recognized them as Monarchs and, on both occasions, she realized that they were on their breathtaking transcontinental migration. They were the same magnificent species that she, as a child, had reared from the caterpillar stage, and she was deeply moved. Throughout this book she emphasizes the value of childhood experiences. If you are like her, you will enjoy it—I am and I did.

Advances in science have left little room in the cosmos for traditional religions. This book is a beautifully written statement of how science, particularly biology and our resulting wonder at the beauty and intricacy of the biosphere, can provide the solace and guidance that we need. Barlow proposes five axioms, and five of the six chapters deal with one of the five. The *evolutionary epic* is her creation story; her four fundamental values are the *pageant of life*, the *diversity of life*, *bioregions* (the diversity of ecosystems), and *Gaia*, the self-renewing, self-regulating living planet. In the final chapter, Meaning-Making, she tries to bring it all together.

The book is enriched by verbatim discussions with many other scientists and writers, most of them like-minded. Twenty-one of them appear in black-and-white photographs at the front of the book.

I had one reservation with the book. As Barlow repeatedly states, the sixth major extinction in earth's history is upon us, and it is entirely caused by human population growth. There is only one solution, and she mentions it but fleetingly: "To reverse the world's population trend is therefore not only a biocentric but an anthropocentric goal" (p 269). Why no mention of contraception, family planning, women's rights or abortion? The Barlow doctrine is attractively based and strong on theory but this and some other examples suggest that its practical politics still have a little way to develop.

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MODELING DYNAMIC BIOLOGICAL SYSTEMS. *Modeling Dynamic Systems.*

By Bruce Hannon and Matthias Ruth; Foreword by Simon A Levin. New York: Springer-Verlag. $59.95. xvi + 399 p; ill.; index. ISBN: 0-387-94850-3. [A CD-ROM is included.] 1997.

This book takes a simple approach to teaching dynamic modeling. The first chapter is a good introduction to the subject—it explains why one should model, describes how one would test models, and sets forth some basic principles of modeling. Each of the subsequent 42 chapters contains a specific example of a dynamic biology model, ranging greatly in approach and complexity. The models cover many aspects of biology, from cellular physiology to genetics to population dynamics. The book comes with a run-time version of the modeling software package STELLA (for both Mac and PC). Every example is included on disk and can be altered, tested, or elaborated by readers.

Unfortunately, the examples vary tremendously both in quality and clarity. Some of the models are clear and concise, while others are described so poorly that they are useless and extremely frustrating. In many cases, the description of the model does not match the diagrammatic representation. I hope that the numerous typos, especially those found in equations and model parameters, will be corrected in future editions.

Although the authors claim not to "endorse any particular modeling paradigm or software" (p vii), the entire book is steeped in the use of STELLA (and to a lesser extent, a related program called MADONNA). The book often feels like an advertisement for STELLA rather than an introduction to modeling. Those who wish to learn the principles of modeling outside of STELLA would find this book of little value. The run-time version of STELLA that comes with the book (and is also available free on the internet) is not fully functional; the retail version of the program costs approximately $600, although discounted versions are available for academics.

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