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REVIEW

NATURE'S DEMOCRATS

Stephen Bocking, *Nature's Experts: Science, Politics and the Environment*. New Brunswick, NJ: Rutgers University Press, 2004. Pp. x + 298. US$65.00 HB, US$24.95 PB.

By Peder Anker

From time to time, scientists and environmental activists embrace technocratic or authoritarian solutions to the ecological crisis that are at odds with democratic values. In this fine book Stephen Bocking argues that a more democratic culture must be developed among 'Nature's Experts', in view of their importance for the environmental decision-making process.

Bocking should be familiar to readers of *Metascience* as the author *of Ecologists and Environmental Politics* (1997), a book that spells out key events in the history of ecology in Britain, the United States, and Canada. Though *Nature's Experts* draws on historical examples, it is a book entirely about science policy. This reflects Bocking's current position as professor at the Environmental & Resource Studies Program, Trent University in Ontario, Canada, where he uses *Nature's Experts* as a textbook in his courses.

In addition to providing students with an overview of important science-policy issues with respect to environmental questions, this book is an original piece of scholarly work. In the first chapters Bocking clarifies why the sciences can be an uncertain authority for politics. If science rules, he points out, one could be in danger of developing "an ever-expanding application of administrative rationalism: seeking, with the guidance of technical expertise, rational and efficient solutions to the problems of society, translating the authority of science into political power" (p. 21). This is a familiar

criticism of scientific technocracy by scholars inspired by sociologists such as Ulrich Beck and Michel Foucault. But as Bocking argues, this criticism can also be heard from non-academic voices caught up in actual controversies where scientists are directly involved with industrial companies or bureaucratic power structures. The academic criticisms of technocracy thus reflect real concerns by laypeople engaged in debates about how science informs environmental policies.

Unlike most political issues, environmental matters are widely seen as parts of science where biologists and ecologists often set the stage for the debate. Bocking discusses the social role of various scientists and scientific theories. Two of many examples include the Gaia hypothesis suggested by James Lovelock in the mid 1970s, and the environmental ethic grounded in biological sciences promoted by Edward O. Wilson in *The Future of Life* (New York, 2002). Regardless of whether such theories present nature as orderly, deterministic, balanced, chaotic, unpredictable, or unstable, Bocking argues, they influence the ability of scientists to assert their expertise: ''Scientists have been more influential when they have had a clear message, and this has been more readily available when nature appears intelligible'' (p. 63). Yet, as Bocking argues, scientists' contributions to environmental politics would be inadequate if they were based only on their personal interpretations of nature. A clear message about the environment must have a scientific footing in order to be authoritative. As an historian of science Bocking is well aware that this scientific base is situated both in a cultural context and in individual scientist's personal beliefs. It is exactly for this reason, Bocking argues, that one needs a more democratic approach to the role of science in society. After all, a scientist's values, regardless of how well they are founded, should have equal standing with other competing views in a democratic society. Bocking also takes a stand against philosophically driven arguments in favour of inherent values in nature, as these arguments are often science-based and risk impoverishing democratic discussions about the use or abuse of natural environments. His book may provoke both environmental scientists and philosophers who are often less concerned about political realities, than they are about evidence, principles, and analytical rigour.

The last sections of the book are particularly instructive. Here Bocking discusses ways of finding a role for science that is both

effective and democratic. He describes how the sciences may serve society in identifying and anticipating environmental problems, prescribing actions to solve them, building theories to understand them, framing larger issues for the public, and supporting or questioning management strategies. What is needed, Bocking argues, are "knowledge brokers" (p. 186) who can mediate such important information between scientists and the larger public.

Environmental questions go far beyond scientific inquiries. They concern the relationship between humans and other species, balancing individual freedom against collective and future good. Finding the best responses to these issues, Bocking argues, does not depend on more sophisticated science but on a more democratic culture. This is not trivial, as there are plenty of examples of people reluctant to embrace democracy in the history of the environmental movement. Key environmentalists of the 1970s, for example William Ophuls, Robert Heilbroner, Laura Westra, and Rudolf Bahro, all had authoritarian longings in their thinking. Bocking's defence of democratic values is welcome in view of this background. After all, it is not information provided by experts or scientists that has brought environmentalism forward, but the involvement and commitment of private citizens engaged in democratic debates.

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