

Visions of the Land: Science, Literature, and Exploration to the Age of Ecology and the American Environment from the Era of Ecology

By Michael A. Bryson. 2002. The University of Virginia Press, Box 400318, Charlottesville, Virginia 22904-4318 USA. 228 pages. U.S. \$16.50. Paper.

Visions of the Land, part of an "Explorations in Ecocriticism" series, is an interesting look at the relationship between science, the natural environment and human beings, as expressed in literature published in the United States from, as the subtitle suggests, the period of exploration in the 19th century to roughly the 1960s. Some aspects of that relationship would also apply to Canada.

The authors examined in the book cover quite the range – from explorers John Charles Frémont (American West) and Richard Byrd (polar regions), to author and feminist Charlotte Perkins Gilman, naturalist Susan Fenimore Cooper, and scientists John Wesley Powell, Rachel Carson and Loren Eiseley. The types of writing also vary widely – from exploration narratives and technical reports, to fictional utopias, natural histories, popular scientific literature, and more.

The book is divided into three parts: 1. Narratives of Exploration and the Scientist-Hero (Frémont and Byrd); 2. Imagined Communities and the Scientific Management of Nature (Powell and Perkins Gilman); and 3. Nature's Identity and the Critique of Science (Fenimore Cooper, Carson and Eiseley). The book's sub-title suggests a certain chronological order in the material, but that turned out not to be the case, which made reading and comprehension a little confusing. It was also a little difficult to follow the author's arguments through the themes covered in the three parts. I would have found it more effective had Bryson simply written a chapter on each of the authors.

Nevertheless, there is lots of good content in the book regarding science and connections with human perspectives on the natural environment. Frémont, for example, was the "glamour boy of American westward expansion", the archetypal macho scientist-explorer, who worked and wrote both scientific reports and popular literature at a time when the country was expanding ever faster westward, and when surveying technology and cartographic techniques were continually improving. Frémont's writing combines descriptive and poetic elements with analytical, quantitative

elements. The science he practises and expresses is highly rational and empirical, and the land something to be studied, catalogued and mapped.

John Wesley Powell, featured in Part 2 of the book, is another fascinating character in the history of the American West. An explorer-scientist like Frémont – as well as an ethnologist, philosopher, writer and government leader – Powell was, according to Bryson, "one of the most important and influential scientists of his age." Powell's work emphasises the scientific control of a mechanistic nature while at the same time recognising nature's self-regulating properties and the need for careful settlement and agricultural practices. Powell is aware of and interested in community, particularly with respect to the need for human communities to develop a responsible relationship with nature and to use science wisely.

Susan Fenimore Cooper, featured in Part 3, is one of the two non-scientist writers discussed by Bryson, although she was a dedicated naturalist and keen observer. Her work falls into the 19th century natural history writing tradition which helped inform the ecological science developed in the following century. Her book, *Rural Hours*, published in 1854, combines natural history, cultural analysis and personal stories to create an environmental and social portrait of her home region in central New York state. Bryson finds *Rural Hours* fascinating "not only because it combines multiple strands of the nature writing tradition but also because it provides a complex and fairly substantial critique of the relation between nature and the human community." Fenimore Cooper views science not as something which can be used to objectify or control nature, unlike Frémont or Powell. Science, in her view, is a "system of study meant to foster moral and intellectual connections between the observer and the outside world."

I learned a lot about the evolution of scientific thinking and its influence on the human-nature relationship in *Visions of the Land*. I also discovered some fascinating writers and books – ones I'm sure to look up and enjoy in the future.

R. SANDER-REGIER

RR5 Shawville, Quebec J0X 2Y0 Canada

Genetics, Demography and Viability of Fragmented Populations

Edited by A. G. Young, and G. M. Clarke. 2000. Cambridge University Press, 40 West 20th Street New York, New York 10011-4221 USA. 438 pages. Canadian \$63. Paper.

This is another Australian CSIRO (Commonwealth Scientific and Industrial Research Organization) flagship publication of international importance to research and conservation. "The continuing global trend towards non-sustainable exploitation of natural resources means that more, rather than fewer, species are going to be affected by habitat loss, degradation and fragmenta-

tion in the future". The editors of this important book make it clear that the species of this globe will either have to survive in zoos, or in smaller fragments. For instance, the range of many Australian mammals declined already by over 90% and is now confined to off-shore islands; and in New Zealand the native forest cover has already been reduced from 78% in pre-human times to 23% today. Obviously, for many plants and animals in the world, preservation with relatively intact habitats is no longer an option.