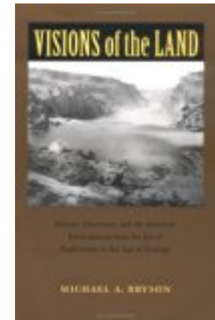

Michael A. Bryson. *Visions of the Land: Science, Literature, and the American Environment from the Era of Exploration to the Age of Ecology.* Charlottesville and London: University Press of Virginia, 2002. xvii + 228 pp. $18.50, paper, ISBN 978-0-8139-2107-5.

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Changing Concepts of Nature

Visions of the Land looks at the period from 1840 to 1970 through the works of seven explorers, scientists, and writers, in order to examine the various ways our culture has viewed nature. In this ambitious work, Michael A. Bryson draws upon a wide array of references (narratives, technical reports, natural histories, scientific autobiographies, fictional utopias, and popular scientific literature), to better illustrate the constantly changing manner in which our culture has chosen to conceptualize nature. Dividing the book into three parts, "Narratives of Exploration and the Scientist-Hero," "Imagined Communities and the Scientific Management of Nature," and "Nature's Identity and the Critique of Science," Bryson discusses the works of John C. Fremont, Richard Byrd, Charlotte Perkins Gilman, John Wesley Powell, Susan Cooper, Rachel Carson, and Loren Eiseley.

From 1842 to 1854, the explorer-scientist John C. Fremont participated in five expeditions to different regions in the West. Fremont's writings were instrumental in transforming the public's perception of the explorer from quaint naturalist to mythic hero. Bryson notes, "Fremont's narratives transform the scientist-explorer into a western hero, a distinctly masculine figure who strives to 'conquer' a feminine nature" (p. 5). As a result of his writing, the general public and members of Congress became convinced that much of the West was suitable for agricultural production, overcoming the pessimistic description voiced earlier by explorers such as Zebulon Pike.

The qualities most embodied by Fremont's frontier hero are detachment, self-control, and rationality, befitting his opinion that Andrew's Jackson's forced removal of the Cherokee nation from their southeastern homelands was a "wise and humane measure" (p. 22). Although Fremont's stature as explorer and politician (he had a controversial role in California's Bear Flag revolt and an unsuccessful 1856 presidential bid) are well known, few are aware that his reports were produced in collaboration with his wife, Jessie Benton Fremont, herself a prolific writer.

Fremont, along with surveyor, illustrator, and cartographer Charles Preuss, produced two highly

significant maps in 1845 and 1846, the latter depicting the Oregon Trail. Despite their detail, John Wesley Powell, during his exploration in the 1870s, remarked, "I have prided myself on being able to grasp and retain in my mind the topography of the country; but these Indians put me to shame. They know every rock and every ledge ... their knowledge is unerring" (p. 15). Powell distinguishes himself as the most complex and enigmatic of early explorers, owing, in part, to his multifaceted resume as writer, geologist, ethnologist, philosopher, and government leader.

Powell's multi-layered persona led latter-day historians to describe him in varying terms, sometimes as the father of modern-day irrigation practices (with attendant overexploitation of water resources), and at other times as a voice for moderation, who lived within the bounds of the West's meager water supply. Further underscoring Powell's complex legacy is the fact that he simultaneously extolled the virtues of wilderness, argued for the construction of dams, and criticized ruthless corporations. These contradictions are brought into clearer focus upon examining his landmark 1878 publication, *Report on the Lands of the Arid Region*. Powell recognized that development of fragile Western ecosystems had become increasingly subjected to abuses perpetrated by both flawed individuals as well as venture capitalists. His solution was to supplant the independent rancher with an agrarian utopian community. The message contained within the *Report*--that the West was poorly suited for irrigated agriculture--was not well received by the political establishment.

Powell's writing style vividly displayed his ambivalence toward nature. He argued for control of western rivers for agricultural irrigation, but simultaneously paid homage to the active, self-regulating elements of nature, in the eco-centric tradition of wilderness writers such as John Muir. Powell believed that science--and not the explorer-hero--was the key to solving the problems of living in the arid West.

That Powell mentioned Native Americans a scant two times in his *Report* highlights his attention to economic and political interests (he received his funding from government sources). Nevertheless, when his funding later was cut, he became the first director of the Smithsonian's Bureau of Ethnology.

The pace of technological changes greatly accelerated during the 1950s, followed shortly thereafter by a heightened awareness of the degradation of our natural resources (air, water, timber, etc). Bryson makes clear that Loren Eisley and Rachel Carson are among a select few individuals who have played key roles in communicating scientific knowledge to a general audience and shaping our environmental attitudes. It was the environmental crisis that prompted both these scientist-writers to "suggest how the empathetic exploration of nature can transform the way science regards the natural world" (p. 136).

Bryson alludes to "the considerable challenges faced by women striving to carve out a successful career in science" (p. 136). Carson (1907-64) overcame these obstacles, resulting in a distinguished career with the U.S. Fish and Wildlife Service as a writer, editor, and researcher. Her non-fiction *The Sea around Us* (1951) won both the National Book Award and the Burroughs Medal for excellence in nature writing. In 1962, *Silent Spring* became a call to arms for the public to hold pesticide companies accountable for their products. More important, her actions both presaged and ushered in an era of greater inclusion of women and minorities into the work force and political process.

Loren Eisley's (1907-77) writings covey a unique sense of kinship with the earth, his narrative persona "part philosopher, part scientist, part poet, and part wanderer" (p. 140). Eisley's observations are more concerned with personal reflection and introspection than with cataloging re-

sources or discovering transportation routes. Like Carson, his work reflected the emerging science of ecology. Scientific writing seeks to occupy a rational, dispassionate voice; I admire Eisley's writings, for his refusal to compartmentalize or strive for detachment from that which he studied. Eisley understood that scientific inquiry, spawning moments that reveal the divine, should serve as a vehicle to educate, incite, and excite. Carson and Eisley both realized that strict adherence to an objective voice is not only unfeasible, it shirks a researcher's responsibility to not only present but interpret data.

What are we to make of a collection of literature in which the authors of the source material examine a wide range of biomes, from Antarctica to the southwestern desert, to the eastern woodlands? Does Bryson succeed in weaving the narratives into a cohesive whole? Yes, without a doubt. Owing to the temporal breadth--spanning 130 years--of the literature reviewed, each writer's work is imbued with the values of that particular age: discovery, exploitation, acknowledgment of the finite nature of natural resources, reconciliation with nature, and, finally, a desire to have scientific research permit glimpses of the infinite, the cosmic. It is precisely these changing attitudes toward nature over time that prompt the reader to reflect upon his or her own relationship with the natural world.

The work of Carson and Eisley, in particular, presages a new era of inclusion in which women, minorities, and amateur enthusiasts are more strongly encouraged to add to the body of scientific knowledge. Examples include the efforts of citizen-scientists coordinated by the Cornell Lab of Ornithology to seek answers to the effects of forest fragmentation on neotropical migrant birds and the use of hundreds of volunteers to produce state breeding birds atlases. Perhaps this is the overarching message of optimism that I gleaned from *Visions*: we no longer live in an era where only the well-financed and/or well-connected are permitted to contribute to science. The ability to connect with the natural world is limited only by our imagination.

As I write these words--in the wake of the devastating fires in southern California during fall 2003--it occurs to me that the perspective from which we view nature is constantly shifting. Owing to one hundred years of fire suppression--resulting in a build-up of fuels--and the expansion of communities at the wildland/urban interface, experts agree that today's fires are more destructive than ever. *Visions* illustrates our society's attitude toward fire during the late 1800s. The lone human destructive activity mentioned in Powell's *Report* is that of fires set by Native Americans for the purpose of driving game. Powell's solution?: "The fires can, then, be very greatly curtailed by the removal of the Indians" (p. 98). Western society demonized fire, attempting to remove it from the landscape. Only during the past twenty years or so have we tried to make peace with fire, acknowledging its place. I wonder: will future residents shun fire-prone areas, if we fail to develop fuels reduction policies? Will forests come to be regarded as ominous and foreboding?

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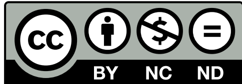

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