

Book Review

A review of *Bringing the Biosphere Home: Learning to Perceive Global Environmental Change*, by Mitchell Thomashow, 2002. Cambridge: The MIT Press, 244pp. ISBN 0262201372. \$18.00 USD.

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In the final paragraph of *Bringing the Biosphere Home: Learning to Perceive Global Environmental Change*, Mitchell Thomashow metaphorically suggests, “biospheric perception is the song of the soul learning to sing earth’s music Life is improvisation and the biosphere is its ever-changing symphony. Our task is to practice its music” (p. 218). From beginning to end, Thomashow beautifully draws upon metaphor, imagery, and emotion to weave together a narrative of his personal experiences and literary and scientific works, as he explores the existential dilemmas and ecological dimensions of global environmental change. Thomashow, chairperson of the Department of Environmental Studies at Antioch New England Graduate School, is first and foremost an educator. He develops the notion of a place-based perceptual ecology as an authentic pedagogical means for conceiving of the biosphere and global environmental change. In his text he seeks to demonstrate how to render global environmental issues more tangible, accessible, and understandable, and to engender personal convictions of environmental responsibility, action, and hope.

Thomashow draws upon his environmental and educational experiences as well as the writings of scientists, naturalists, and philosophers such as Edward O. Wilson, Lynn Margulis, Vladimir Vernadsky, Richard Fortey, and Abraham Heschel. Thomashow’s thesis is founded on four guiding principles: 1) place-based perceptual ecology is the foundation for understanding and interpreting global environmental change; 2) once grounded

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in place (with a refined perceptual ecology), the next step is to explore the relationship between places. This serves to expand awareness and understanding beyond the local; 3) by exploring spatial and temporal dimensions of environmental change through juxtaposing scale and perspective, it is possible to cultivate the ability to perceive the biosphere; and 4) there are three interconnected learning pathways in practicing biospheric perspective—natural history and local ecology, life of the imagination, and spiritual deliberation. Thomashow introduces these principles in his first chapter, expanding upon them in subsequent chapters. Interwoven throughout are personal anecdotes and beautifully descriptive and metaphorical narratives of the places Thomashow has encountered in his life, both locally and globally. He reveals through his writing and lived experiences a context for global awareness and the deep, personal meaning inherent within a place-based perceptual ecology. Thomashow suggests that global awareness does not necessarily translate to an understanding of global environmental change; that often, in our endeavours to participate in global environmental awareness, we are left with a sense of anxious foreboding and hopelessness. In asking, “What are the educational implications of this?” (p. 14), Thomashow introduces existential dilemmas inherent in perceiving global environmental change—creation and extinction, hope and foreboding, wonder and indifference. “The cultivation of wonder,” he suggests, “has long been at the heart of environmental education. As such, it is at the core of this book—the deep wish that wondering about the biosphere summons praise, compassion, and an ethic of care” (p. 46).

Throughout his book, Thomashow contends that place-based environmental learning is a means for cultivating biospheric perception. He suggests observational approaches for exploring scale and perception, such as exploring the relationship between the landscape and its life cycles, the temporal changes in landscapes, the movement between places, and the intermingled and shifting edges. Thomashow further identifies ways for interpreting the biosphere through what he calls the “three pillars of inquiry—analysis, compassion, and imagination” (p. 15). This biospheric inquiry involves tracking the four elements (fire, water, earth, and air), learning about biospheric knowledge systems, and tracing lineages through deep time. Further, Thomashow deliberates on the impact of the Internet and high-speed transportation, suggesting these facets of modern life act both to enhance and diminish environmental perception. They operate to expand the possibilities of our perceptual views but also increase the speed with which we move through our world, making it difficult to observe and appreciate the intimate details inherent within place-based perceptual ecology. Following this line of thought, Thomashow suggests that human migration and Diaspora, though conceivably counterintuitive to place-based

ecology, actually might broaden perspective and scale, “leading to a greater appreciation of ecological and cultural diversity” (p. 15).

Throughout his book, Thomashow suggests cognitive approaches for understanding and interpreting global environmental change. *Bringing Home the Biosphere* closes, however, with a deeper discussion of a biospheric curriculum. He emphasizes learning the patterns of the biosphere through explorations of scale and perspective by moving between conceptual worlds—*interspatial*, *interspecies*, *intertemporal*, and *intergenerational*. Thomashow suggests these four domains—place, species, time, and generation—as an organizational means for integrating and synthesizing the many curricular ideas scattered throughout the book. Biospheric perception is a practice learned by doing. It takes time, patience, and perseverance. Thomashow recognises the ideational and overwhelming nature of attempting to develop such a practice, but suggests that the role of education is to help people cultivate biospheric awareness as they learn the patterns of the biosphere.

Thomashow’s book is intended as a starting place; its role is to inspire thought, attention, and action about the natural world, locally and globally. It is also intended as a point of departure for educators as they consider environmental pedagogy. As Thomashow states, this book is “not a handbook, or a field guide, or an ecopolitical manifesto. It’s a series of interconnected essays that explore various approaches to learning about global environmental change” (p. 14). As such, his book presents only an overview of global environmental change and the science behind it. He does not explain biodiversity, species extinction, global climate change, or other global environmental change issues. However, this was never his intention—this is not a scientific treatise, rather it is an existential narrative designed to provide fare for introspection and deep consideration. Some readers may have difficulty fully grasping the import of perceiving biospheric patterns and global environmental change without some prior scientific understanding of global environmental change issues such as biodiversity or global climate change.

Underpinning Thomashow’s writing is a deeply spiritual and ecological perspective. It is evident throughout his text when he uses language such as “inextricable connectedness,” “layers of ecological relationships,” and “intuition of biospheric perception ... intricately complex, inconceivably variable, replete with cycles and patterns, more involved than I can ascertain” (p. 109). The reader is made aware of Thomashow’s perspective even though he does not explicate organismic systems thinking or delineate his ecological/complexivist worldview. For example, he suggests the necessity and inherent advantage of the collective in understanding and interpreting the biosphere—“you can’t interpret the biosphere by yourself. The notion directly contradicts the very processes you observe” (p. 135). Thomashow

has managed to render complexity as commonsense—complexivist thought is interwoven throughout the weft and warp of his book.

At times, I found Thomashow's narrative meandering; I found myself wishing he would get to the point—I was impatient. However, I realize the consequence and place of his existential, metaphorical narrative. His experiential and spiritual approach is crucial for cultivating a meaningful sense of perceptual ecology and for engendering an ethic of care. Thomashow beautifully expresses the import and educational significance of learning to “bring the biosphere home” when he writes,

Learning about ecology and evolution, becoming familiar with the history of life on earth, attaining a biospheric perspective—these approaches to thinking expand the mind and enhance awareness, filling you with curiosity, wonder, awe, and praise. One is also struck by the sheer vastness of these earth processes—the expansiveness, grandeur, and complexity of the biosphere. When you perceive the human condition from this biospheric perspective, you contemplate both the crucial importance and the utter significance of human action. What difference does any human action make when measured against the inconceivable breadth of space and time—4.5 billion years of earth history? Yet the inexorable march of humanity has brazenly transformed the face of the earth in a remarkably short period of time, yielding profound climatic and ecological changes. We are far less powerful than we think, but have much more impact than we perceive. (p. 45)

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