

**CONSECRATING SCIENCE:
WONDER, KNOWLEDGE, AND
THE NATURAL WORLD**

by Lisa H. Sideris. University of California Press, Berkeley, CA, U.S.A., 2017. 296 pp. Paper. ISBN: 978-0520294998.

Reviewed by Amy Ione, Director, the Diatropé Institute, Berkeley, CA, 94704 U.S.A. Email: ione@diatropé.com.

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The title of Lisa Sideris's book, *Consecrating Science: Wonder, Knowledge, and the Natural World*, made me wonder: Would this consecration expose me to something wondrous? While I don't think the word wondrous quite fits my response, the book

is a rewarding read. Sideris, a talented writer, introduces pointed questions to guide her study. I was particularly impressed with her nuanced evaluation of the new cosmologies that claim to bring science and spirituality together. In addition, the author's erudite discussion stands out as a refreshing example of why the kind of critical thinking encouraged by the humanities has value.

Sideris, Professor of Religious Studies at Indiana University, opens the volume by explaining that the lack of coherence between the religious vision for nature of environmental ethicists and the realities of Darwinian science were subjects of her own earlier research, which includes a general indictment of anthropocentrism (the view that humankind is the most significant entity of the universe). She then adds that this book is an extended meditation on wonder and that she uses wonder to express her concern that a growing constellation of movements within both religious and secular environmentalism take science rather *too* seriously. Essentially, her argument is that, when properly oriented, wonder can foster intellectual and moral habits that are also encouraged by what she calls the "ignorance-based worldview" (p. 193) and its emphasis on sensory engagement with the world; however, as I discuss below, her examples of people who advocate for an ignorance-based worldview do not emphasize such sensory engagement with the world. Her larger point is that, although a common story and unified global ethic may sound appealing, particularly in times of great environmental and political upheaval, a global, science-based story cannot do justice to the enormous variety of places, people, problems (and possible solutions) that are part of the richness and complexity of life on this planet. In other words, universal narratives are inadequate, especially when we look at the particularities of environmental injustice and disparities of wealth and accountability. Moreover, no one person, or even a community of people,

can provide a story for the rest of humanity, nor should they try.

The book's strength is Sideris's ability to deftly illustrate that many of the new grand narratives and cosmogenesis stories use scientific framings in ways that distort our vision and/or experience of both nature and science. The critiqued and overlapping set of "stories" go by names like the Epic of Evolution, the Universe Story, the New Story, the Great Story, Big History and so forth. Advocates of these new cosmologies, some of whom have scientific backgrounds, include Thomas Berry, Brian Swimme, Mary Evelyn Tucker, John Grim, Loyal Rue, David Christian, Eric Chaisson, Ursula Goodenough, Connie Barlow and Michael Dowd. Their narratives largely define humans as the part of nature that has become conscious of itself and frequently integrate ideas from sociobiology and evolutionary psychology.

Sideris's problems with such myths (or stories) include their emphasis on the centrality of humans and human consciousness, their interpretations of intentionality or directionality, how they combine scientific and religious traditions, and a proselytizing impulse most evident in how they position humans as cocreators of the universe within the "Good Anthropocene" narratives related to global climate change. Cocreation within the spiritual cosmologies suggests that the fate of the planet involves humans understanding our unique cosmic role in shaping the environment and also includes a measure of spiritual self-awareness. Sideris claims that sometimes their arguments seem hubristic and/or hierarchical. She also claims that at other times their visions of (or arguments about) the environment seem indistinguishable from the environmentally disastrous and morally bankrupt voices of the Anthropocene, the geological era in which human activity began to significantly impact climate and the environment.

The book also critiques expressions about wonder in the work of scientists, Richard Dawkins and E.O.

Wilson in particular, because several of the new spiritually inclined cosmologists take inspiration from their work. According to Sideris, Dawkins "endorses a kind of natural theology without either God or nature as the ultimate object" (p. 35). She argues that he conflates science with nature and sees wonder in terms of puzzle solving. What she finds particularly troubling is "Dawkins's suspicion of the natural world as a legitimate source of wonder, or as worthy of rapt contemplation, in and of itself" (p. 37), as if science offers something superior to religion. In short, Dawkins, she argues, proclaims the superiority of science and too narrowly defines wonder as curiosity.

Wilson's advocacy for scientific materialism, by contrast, serves as an alternative mythology to religion because he proposes a grand narrative. The controversial phase of his career began with his publication of *Sociobiology* (1975), although he is probably best known for *Consilience* (1998). Wilson's call for a unification of knowledge that will bridge all disciplinary gaps—his consilience project—includes nature, experiential and sensory elements. Strangely, many strains of evangelists are drawn to his advocacy for an evolutionary epic despite his belief that the "great religions . . . are sources of ceaseless and unnecessary suffering. They are impediments to the grasp of reality needed to solve most social problems of the real world" (p. 54, quoting Wilson). While Dawkins is clearly a biological reductionist, aspects of Wilson's writings have more resonance with spiritual views of nature and wonder, perhaps explaining his appeal.

The array of ideas frame two foci of the volume. One is that science has a limited hegemony for defining what "authentic" reality is because imaginary realms are omitted. The second concerns how narratives capture who we are and what kind of story our narratives about nature reveal. To one who has argued that narrative approaches obscure many other ways of knowing [1], the narrative terrain

seemed truncated from the start. As used in this book, the "narrative" problem is accentuated rather than addressed, because Sideris largely mischaracterizes science. Although at the end it is clear that she has some understanding of science as a useful practice, in most of the book science is articulated more in terms of philosophies of science ("scientism") than science per se. In addition, although the author tells us her remarks are aimed not at science but scientism, the lack of evidentiary and empirical elements within the volume make her references to "science" suggest that science is just another story.

Rachel Carson and Loren Eiseley serve as her main counterpoints to the figures mentioned above. In them the author sees examples of people who align themselves with the natural world and understand mystery as well as the limitation of science. Sideris noted at the start that she didn't intend to offer an alternative environmental ethic through her disposition on wonder. Therefore, these two twentieth-century writers essentially serve as the alternative vision of how science, nature, mystery and wonder optimally come together. Even so, and even with her concluding valuation of an ignorance-based approach toward nature, the book seemed incomplete.

Seeing wonder in terms of nature and repeatedly relating it to the environment leaves our environmental crisis just hanging there. Although Sideris doesn't explicitly speak about religious awe and God's handiwork in defining wonder, because the language often implies that this is how the threads and mystery are connected in her mind, the lack of an environmental alternative leaves a Jobian feel as the book ends. This sense that the Book of Job may serve as her response to the environmental crisis of our time is particularly resonant with her interest in placing wonder in relation to all creatures (rather than just humans) and her ethic of humility. A passage from this scripture reads:

But ask the animals, and they will teach you, or the birds in the sky,

and they will tell you; or speak to the earth, and it will teach you, or let the fish in the sea inform you. Which of all these does not know that the hand of the Lord has done this? In his hand is the life of every creature and the breath of all mankind.

—JOB (12:7–10)

Still, in my view, the study's primary problem is Sideris's assessment of science. In her exposition, within science, wonder becomes a response to the *end product* of inquiry rather than a goad *to* inquiry. Or, as she puts it, an explanation is not the experience of wonder. Rather wonder is a phenomenon *itself*. It is the color, sound, or a combination of impressions that elicits wonder. I find this overly simplistic. How are phenomena and emotions deriving from phenomena connected? How do lifelong developmental factors inform our relationship to phenomena and experience? Suffice it to say, she tells us that while wonder in the broadest sense may be a response to living in a universe that exhibits an incommensurable play of scales and a perplexing array of possible meanings, she doesn't move it beyond a kind of one-dimensional space. She does, however, say that wonder is not always a positive or affirming experience; it may be deeply unsettling, again bringing the Book of Job to mind.

The most intriguing element of the book is her advocacy for an ignorance-based science at the end, particularly in light of the book's religious resonance. She cites several contemporary figures, not all scientists, to support her vision. Notably, they do not appear to base their ideas about ignorance on the kind of contemplative mystery or sensory processes she has elevated in defining wonder. They do share her sense that narratives aiming to tie all the pieces together are misplaced, and some echo her moral/ethical tenets. For example, Stuart Firestein has noted that the scientific enterprise is not a top-down model of education-as-imposition, because it is driven by careful questioning rather than

authoritative answering, and thus is an enterprise in which a humbler and more ethical form of wondering remains a vital possibility. Alan Love says that the nature of scientific inquiry itself suggests that there can be no comprehensive story of the universe. Julie Adeney Thomas argues that those who turn to science to craft a coherent story about who we are or what it means to be human will, if they are truly paying attention, come away perplexed.

Given the religious underpinnings throughout the text, and that she works within the Religious Studies framework professionally, I wondered why she also landed in limbo on the religious front. As she notes, in theological circles "wonder has sometimes been highly regarded as a fitting response to the divine and to the intricate marvels of the created world" (pp. 20–21), and "the Augustinian association of curiosity, vanity, and pride, on the one hand, and wonder, humility, and ignorance, on the other hand, has never faded entirely from Christian thought" (p. 22). These references are to Augustine of Hippo (354–430), who is frequently characterized as a figure who opened the era of Medieval philosophy. Nicholas of Cusa (1401–1464) is said to mark its end point, more or less.

While Augustine tended to look inward, Nicholas, a theologian, cosmologist and influential philosopher, extended his vision outward and directed it toward nature. Augustine wrote, "Understanding is the reward of faith. Therefore, seek not to understand that thou mayest believe, but believe that thou mayest understand" (in *Joannis Evangelium tractatus*, XXIX, 6); Nicholas, in his *On Learned Ignorance (De docta ignorantia, 1440)*, simply defines the learned man as one who is aware of his own ignorance. Sideris's view seems to align with Augustine's moral underpinnings and meditative embrace of wonder. Nicholas is more in line with her ignorance-based advocacy as expressed in the views of the contemporary figures she introduces to support her view, although they do

not use his theological and religious framing. It seems that Nicholas espoused an ignorance-based philosophy that intersects with Sideris's proposal, but she does not acknowledge or critique this precursor. Given that Nicholas wrote on learned ignorance, and saw ignorance as a form of humility in the face of the infinity of God, it is a striking omission.

Of course, there are many ways to frame wonder, nature, the exigencies of modern science, the generational debates about what science and knowledge are, and the interpretations as to why science began its ascendancy in the west. In terms of the current trend to blame the rise of modern science and technology for many of our ills, which seemed to echo at times in *Consecrating Science*, perhaps it is useful to think about the terrain that led to the decline of the spiritual mythology of the Church. To return to her statement that wonder is not always a positive or affirming experience, it is clear that, for example, glorifying God and reverence for nature's wonders proved ineffective in solving pressing problems like the Black Plague at the end of the Middle Ages, for example. When prayer, ecstatic mysticism, scapegoating, medicine based on sympathetic magic and so forth all came up short, is it surprising that people looked outward, deciding we needed better methods for studying nature and the outside environment? Their revised orientation did not displace wonder, nor did the movement toward a larger investigative toolbox mean that subsequent changes happened in a linear fashion. Nor should we assume that the changes suggest a progressive story, as ensuing generational debates underscore. Rather, just as our deliberations about nature and the environment today come in many flavors, within each generational culture we can identify all shades of values, nuances and dispositions. Despite the increased interest in developing new tools, God continued to hold a transcendent position within scientific studies well into the Darwinism paradigm, and even today some see

God as the precursor to Big Bang cosmologies. Needless to say, the range of views on wonder and experience—both positive and negative—evinced (and evince) many opinions. Indeed, perhaps our awareness of global warming is comparable to how the plague moved the needle in some way we cannot yet cogently define?

That said, I really found the book a stimulating read. Also, I would be remiss not to acknowledge that at times Sideris seems to recognize that science is a valid way of knowing, even as she seems to denounce some of the philosophic rhetoric used to define it throughout the book.

Scientific investigation entails a heuristic narrowing of its subject, and this narrowing process entails that certain elements of the problem be isolated or abstracted from some larger context. The processes deployed in scientific investigation—*isolating, abstracting, simplifying, objectifying*—have a proper role to play and are not in themselves suspect or unethical. These terms signal practices of disciplined engagement that enable interrogation of some concrete, delimited phenomenon. Only when knowledge gained through such practices is invested with claims to ultimate meaning or superior and totalizing reality does science overstep its bounds (p. 172).

In summary, as much as I enjoyed having a dialogue with the book, I did not think that Sideris's meditation on wonder fit seamlessly with her promotion of an ignorance-based knowing. I do, however, fully support her valuation of the humanities. I also applaud her for writing a book that attempts to grapple with difficult and challenging questions. Engaging with her ideas is well worth the read, given her talent for thinking about ideas in a complex way.

Reference

- 1 A. Ione, *Innovation and Visualization: Trajectories, Strategies, and Myths* (Consciousness, Literature and the Arts 1) (Amsterdam: Rodopi, 2005).

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