

David Farrier. *Anthropocene Poetics: Deep Time, Sacrifice Zones, and Extinction.* University of Minnesota Press 2019. 184 pp. \$92.00 USD (Hardcover ISBN 9781517906252); \$23.00 USD (Paperback ISBN 9781517906269).

Part of the *posthumanities* series, edited by Cary Wolfe, *Anthropocene Poetics* is an exploration of the Anthropocene, ecological humanities, and human attempts to use art and literature to comprehend deep time. The book is born of particular concern: that ecological criticism has confused our understandings of time. The book is divided into three chapters, an introduction, and a coda. Together, these sections provide four themes: *deep time*, *intimacy*, *entanglement*, and *swerve*. Each of the three main sections of the book is not so much a progression in time (from past to present to future), but another framework through which one can examine human relations with time and how this is consequently shaped by various visualizations of Anthropocentric materialities.

Rather than being a discipline-specific book (though the author's own background is critical literary perspectives and modern/contemporary literature), *Anthropocene Poetics* offers a unique perspective by which readers can better attempt to complicate their understandings of environmental humanities and temporal extremes. After all, the challenge with large timescales (which Ferrier attempts to confront) is how to talk about such unknowable extremes without experiencing them. Ferrier suggests that we must come up with other ways to relate to large time scales that also engage and embrace all the senses. He asserts that it is hard to understand the unknown when trying to evaluate it with just one sense. Instead, one must call upon more than one sense. In this way, while humans cannot experience deep time, we can relate the unknown to multiple knowns.

In his acknowledgement, Ferrier (perhaps inadvertently) captures the spirit of the narrative carried through *Anthropocene Poetics* in describing the tone of collegial conversations that eventually led to the creation of the book: 'wonderful, startling, and sobering' (vii). This mood carries into the *Introduction: Deep Time* with an exploration of the Anthropocene's fit within deep time: it is just an era, like the others that came and went before it. Recognizing the complexity of the Anthropocene of the term means recognizing that the era is defined not just by how long humanity's actions will last on Earth, but how humanity's actions will actually permanently change and shift earth systems. Ferrier suggests there may be many Anthropocenes that have different purposes; consequently, his monograph can be seen as a quest for a poetics of the Anthropocene. However, the content and form of the 'alternative Anthropocenes' are left unsaid, the implication given that readers are instead to focus on the *questions* that form the basis of new Anthropocentric understandings: what do they look like? Do they focus on many sub-manifestations of the whole, or is their very understanding of the content different? Are we to be wary of overstating culture, or overstating the importance of discipline cultures?

Ferrier brings art into the conversation by detailing its five functions: that Anthropocentric art: 1) draws connections between domestics and deep time, 2) shows slow and fast time alongside one another, 3) is infinite in self, 4) shows scale and texture, and 5) shows the interconnection of differences (27). Each of these functions serves to elaborate, problematize, or contextualize subject-subject relations, contributing to the second theme of *intimacy*. Intimacy and kin-building across species and sentience lines is of particular concern to this theme; if humans cannot even manage kin relations with one another across racial, social, and national lines, how can humans hope to manage intimacy with earth objects and processes? To answer this, Ferrier explores art that is being done to give non-sentient and voiceless figures a voice, such as the work Paul Walde does with glaciers, and Jeremy Jerko with a 'mussel choir.' Both case studies of artistic work and voice-granting representation

are incredibly interesting, and could be given greater page space in the second chapter. The concept of intimacy is closely related to the theme of *entanglement*, which examines the ways in which life forms become enmeshed with one another (with the potential to become either romanticized or tragic). Ferrier uses entanglement to problematize the concept of there being places where certain objects or subjects ‘do not belong’ (55). Cultural standards or norms may prompt us to say that there are places where certain things do not belong (e.g., a tennis show on a beach, a wasted toothbrush in a field), though such is a simplification. Yet this argument, rather foundational to the concept of entanglement, does not well explain what happens when humans judge something to be somewhere ‘it should not be’ by virtue of its presence causing harm or damage (e.g., oil in the Great Barrier Reef, an island of plastics in the Pacific Ocean).

Ferrier has the ability to write about photosynthesizing cyanobacteria as if submitting his work to a literary journal, which he showcases in the fourth theme (dominant in the third chapter), *swerve*. In this section, Ferrier explores a case study with extraordinary depth through the chronology of *The Eternal Poem* by Christian Bök, laying a foundation by giving recognition to the preceding work contextualizes the phenomena of artistic interest in contesting the ‘indestructible’ canvas that is DNA. Starting in 1986, Joe Davis inscribed Germanic script into a sample of *E. coli*. Later, in 2003, Pak Wong encoded information on bacterial DNA: the lyrics to ‘It’s a Small World After All’ into two bacteria: *E. coli* and *Deinococcus radiodurans*. Ferrier describes these manipulations as ‘poised between hubris and an awareness of ecological frailty’ (108). Ferrier goes on to detail the injections of lines of prose into genomes and DNA, choosing a thematically appropriate selection of excerpts to the book’s tone, from *A Portrait of the Artist as a Young Man*, and *Georgics*.

Encoding messages in bacteria is presented as a case study of inserting human presence and manipulations into the deep future. It is, perhaps more so than the other cases encapsulated in the book, the best fusion of everyday human life and the personal time scale with the immense ‘impersonal’ time scale of *life* more broadly (109). It is the dual interaction between the individual and mass-scale that brings forward the concept of *double death*. In this form of entanglement, the death of the individual is not the end of the story. With it is the death and loss of possibility of all the interactions that could have occurred with other organisms. It is the expansion from the tangible and immediate to the potential and abstract that distinguishes *swerve* from its preceding theme of entanglement. A shift to the abstract reconnects the third section to an introductory theme, that the Anthropocene is ‘an event that challenges our idea of what an event might mean’ (7). Suddenly, what we have taken to be a concrete, in-process event (or era) has become an abstracted concept.

In the coda, *Knots in Time*, Ferrier brings the narrative from the extremes—of longevity of life forms, microscopic degrees of biological manipulation, and the ripples which radiate from disturbances to the environment—and brings focus back to the individual by relating his own experiences in Singapore as a witness of Anthropocentric visualizations. In the city, he considers the many expressions of human-inflected deep time, though through the examples given (nondegradable products, carbon residue, and mass extraction) one wonders if the phrase should be *human-inflected* deep time.

Ferrier reminds readers at the book’s conclusion that ‘poetry makes nothing happen’ (128), though he asserts this is not a problem, because poetry helps frame our knowledge, environment, and action as we seek to ‘make things happen.’ Such framing, while sentimental, comes across as slightly pessimistic given the critical urgency and danger associated with climate change. In the face of such challenges, surely we want to accomplish—or *prompt*—something to happen in response. Yet it does seem that Ferrier is trying to make something happen despite his reference: to retie the knots that bind humanity with Earth and our fate.

Ultimately, *Anthropocene Poetics* is a beautiful textual exploration of Anthropocentric art, experiments, and other visual attempts to capture the vastness of time in terms humans can understand. At the same time, it is important to affirm that the book also has a strong biological and natural sciences foundation, resulting in a book that, given the nature of its subjects, has a heavy infusion of jargon and scientific terminology. For that reason, *Anthropocene Poetics* reads in a way that may be largely inaccessible for students and scholars of the Anthropocene who are coming to the subject from backgrounds outside of the natural and ecological sciences. If readers are willing to take occasional breaks to do some background reading or encyclopedia checks, they will benefit from the deep description. At the same time, the way in which Farrier drops literary and artist names, sometimes with minimal context, may alienate natural science scholars, or at the least limit the readability for those members of the audience. *Anthropocene Poetics* will likely be of particular interest to academics with pre-existing knowledge of political ecology, temporal-spatial analysis, or the philosophy of deep time. The specific scope, combining natural sciences with detail-heavy literary analysis may make the book less accessible to graduate students or early career scholars who have not had the career time to develop such interdisciplinary fluency.

Ellen A. Ahlness, University of Washington