

## BOOK REVIEWS

IALENTI, VINCENT 2020. *Deep Time Reckoning: How Future Thinking Can Help Earth Now*. Cambridge, Massachusetts: The MIT Press. 208 p. ISBN: 9780262539265 (paperback).

In *Deep Time Reckoning: How Future Thinking Can Help Earth Now*, anthropologist Vincent Ialenti draws on ethnographic fieldwork among nuclear waste experts in Finland to advocate for long-term thinking as a social and political practice. For Ialenti, long-term thinking requires that social actors, whether individuals or organizations, consider vast, even multi-millennial, timescales when making decisions in the present and plans for the future. Such ‘deep time reckoning’ rests on a practice of conceptual estrangement—one must draw on unfamiliar timescales to evaluate and justify current actions—but its force is ethical. When actors consider the long-term, multi-generational, multi-millennial consequences of their conduct, Ialenti reasons, then they will feel responsibility toward imagined futures and act accordingly. On a practical level, then, long-term thinking might serve as an antidote to today’s pernicious short-termism, which values immediate return over sustainability thereby foreclosing decisive action on climate change. *Deep Time Reckoning* thus articulates a categorical imperative for the Anthropocene: think epochally, act presently. The book turns to a team of Finnish experts, tasked with ensuring the safety of an underground radioactive waste repository, as consultants on the practice and value of long-term thinking.

*Deep Time Reckoning* joins the growing literatures in the social sciences and the humanities that have elaborated on the concept of deep time and address the Anthropocene,

that is, the current era defined by anthropogenic transformations to the global climate and environment. Notably, however, Ialenti writes *Deep Time Reckoning* not as a conventional ethnography or academic text. Rather, the book is an exercise in popular science, an ethnographically informed but ‘practical guide in the art of long-termism’ (p. xiv) that seeks to appeal a non-academic readership. Jargon is thus kept to a minimum and insider, academic conversations are relegated to footnotes. The book itself is structured through four core chapters that each highlight a different facet of the long-term thinking displayed by the Finnish ‘Safety Case’ experts working to determine and ensure the safety of the Olkiluoto nuclear waste repository across future millennia. These case studies serve as possible lessons or inspirations for readers who are curious about long-term thinking and the perspectives that it can afford. Chapter One examines how the Safety Case team members applied analogical thinking—using present environments to imagine and model possible future ones—when designing and testing nuclear waste storage options. Chapter Two details how Safety case experts employed basic logical patterns (for example, of inputs and outputs) to organize and navigate the project’s enormously complex models of deep time. Chapter Three focuses on how the scientists engage in techniques of ‘zooming in’ and ‘zooming out’ to gain fresh perspectives and solve problems in their work. Chapter Four considers how specialized teams of experts

do (or do not) share knowledge and expertise, a question that can become acute when a team loses a pivotal member. *Deep Time Reckoning* presents these practices—of analogical thinking, of patterning complexity, of zooming in and out, of organizing knowledge networks—as tools that readers can use to develop their own long-term thinking. Each chapter is punctuated with a section of ‘Reckonings’, or thought experiments that guide readers through particular tactics of long-term thinking.

*Deep Time Reckoning* will intrigue anthropologist readers on multiple levels. The book is simultaneously an example of public anthropology; an ethnography of nuclear waste experts; a contribution to anthropological literatures on time, futurity, expertise, science studies, and the environment; and above all else, an impassioned appeal for long-term thinking. I especially appreciated how the book demystifies specialized technical practice by analyzing the core logical tools (that is, analogies, patterns, refocused perspective) that nuclear waste experts would use to advance their own research and to collaborate with others. Quite admirably, the book also illustrates how actors’ temporal imaginaries are always mediated by technologies and techniques, whether it is nuclear waste experts’ sophisticated models of multi-millennial environmental and geologic change or their analogical reasoning. In each case, the ability to perceive and act in and on time depends on tools that make time experientially real. The book is also full of a slew of thought-provoking suggestions on how deep time reckoning might be productively institutionalized within organizations. For instance, how might corporate behavior be different if firms had a ‘decades division’ and a ‘centuries division’ (p. 113) to consider longer-term strategies, impacts, and costs?

As much as I commend Ialenti’s insightful experiment in popular science, there are aspects of the book that were harder for me to embrace. At times, I felt that the book read less like a guidebook and more like an evangelist’s sermon. Ialenti is not merely offering lessons in long-term thinking, but with a proselytizer’s zeal, he trumpets deep time reckoning as a source of knowledge that can deliver humanity from the evils of the Anthropocene and the contemporary ‘deflation of expertise’. Indeed, in the book’s conclusion, Ialenti imagines future promised lands in which long-term thinking has transformed the world for the better, resulting in a perpetual peace of environmental protection overseen by sustainable expert systems. Ialenti’s contagious enthusiasm for long-term thinking can be hard to resist—and it was always interesting to engage. Ultimately, however, while I appreciated ‘the art of long-termism’, as Ialenti presents it, in reading the book, I came to understand that I simply belong to a different church of critical thinking.

In contrast to the gospel of deep time reckoning and its promise of salvation, my denomination still focuses on the original sin of racial capitalism (Robinson 2000). I thus found *Deep Time Reckoning* to be strangely inattentive to how racism and capitalism have shaped the Anthropocene and its geographies of harm, especially since recent works, such as Jason Moore’s (2015) *Capitalism in the Web of Life* and Kathryn Yusoff’s (2018) *A Billion Black Anthropocenes or None*, do explore these themes. Is it not capitalist temporalities that reward and entrench short-term thinking? Is it not also capitalist logics, which reduce worth to market value, that have ‘deflated’ expertise? Can we adequately act on climate change without explicitly addressing how environmental risk disproportionately threatens

racialized communities? *Deep Time Reckoning's* failure to consider racial capitalism thus left me wondering, who will expert-led long-term thinking primarily benefit, especially if expertise is overrepresented by white, privileged voices? How is it different than other liberal convictions that technocratic reason is all that is needed to save the present from itself? Might not reasoning over vast timescales obscure the quite pointed political and social problems that directly affect many vulnerable communities today?

And so, while *Deep Time Reckoning* convinced me of the merits of long-term thinking, of unsettling temporal horizons and of holding firms and organizations accountable for their long-term effects, I could not see it as a primary remedy 'for the ailments of the Anthropocene and the deflation of expertise' (p. 38). Simply put, by my estimation, the problems of the Anthropocene and the project of dismantling racial capitalism require a different, larger intervention.

If I failed to join the church of *Deep Time Reckoning*, Ialenti nevertheless succeeded in writing a thought-provoking book, one that

bounds with energy and passion. I am certain that it would generate lively conversation in classes on the anthropology of time and temporality, the anthropology of the future, the anthropology of science, and the anthropology of the Anthropocene—not only due to its ideas but also as an example as public anthropology. Reading lists on the aforementioned topics would also benefit from the book's inclusion.

## REFERENCES

**Moore, Jason** 2015. *Capitalism in the Web of Life*. New York: Verso.

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**Yusoff, Kathryn** 2018. *A Billion Black Anthropocenes or None*. Minneapolis: University of Minnesota Press. <https://doi.org/10.5749/9781452962054>.

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