of the book: computers don't do semantics because they have no access to referents for symbols; they don't do pragmatics because they lack goals of their own; and they don't do emergence because they are passive tools. All they do is what they are told to do.

This is why computers can't "solve algorithmic bias and fake news" (as the book's subtitle promises to explain). Defining what is "fake" is a semantic and pragmatic information issue that must be worked out by human beings. That computers only function at the syntactic level of information processing is a point that has been made by other computer scientists, including Joseph Weizenbaum and Terry Winograd, but AI boosterism makes it necessary to reiterate the mundane details, and limitations, of computational processing that *The Information Manifold* seeks to explain. The work of unmasking the black box of algorithmic data processing has resulted in several recent books that show specific examples of information problems within their sociocultural and political-economic contexts (e.g., O'Neil, 2017; Noble, 2018; Broussard, 2019; and Eubanks, 2019). Badia's is a much different discussion that remains at a level of disembodied abstraction where information theory and computer science both flourish. While computers can't solve some human problems, Badia believes in a scientific objectivity that can, stating, "The scientific approach can be considered a means to address human weaknesses in dealing with data and information" (p. 290). This commitment might prompt eye-rolling from some historians of science and technology, but *The Information Manifold* is a useful guide for the information theory novice.

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Peder Anker. *The Power of the Periphery: How Norway Became an Environmental Pioneer for the World*. xiv + 288 pp., bibl., index. Cambridge: Cambridge University Press, 2020. £75 (cloth); ISBN 9781108477567. Open access and e-book available.

How did a nation of a few million people on the edge of northern Europe come not only to create but also to export a philosophy of do-gooding environmentalism to the world? This is the central question of Peder Anker's fascinating new book. His answer builds on a thorough engagement with the ideas of philosophers, theologians, physicists, economists, and others. The same romanticized visions of smallholders and fisherfolk living in tune with fjords, mountains, and rocky meadows that underpin the modern-day Norwegian obsession with cabins and outdoor life also shaped the brand of environmentalism that Norway sold to the world.

The book is divided into nine chapters bookended by an introduction and an epilogue. These nominally address different disciplines, though in practice they often overlap, without detriment to the narrative. Anker identifies the "scholar-activist" as his key category of protagonist. Thor Heyerdahl and Helge Ingstad, explorers with romantic attachments to wild places, are the first figures introduced. From the outset Anker identifies a tension between the idyll of unspoiled nature and a more complex reality. Heyerdahl's unsuccessful attempt to find an unspoiled Pacific island paradise was a case in point, but, as Anker notes, the tension existed at home as well. The philosopher Arne Næss built a cabin perched atop a mountain, a place for thinking, along with a somewhat less precariously located cabin further down as a place for writing and living. Yet Næss remained anchored to the world of the respectable bourgeoisie, from the trains that connected him to Oslo to the family wealth from shipping and whaling that allowed him to construct his cabins.

Anker does a particularly fine job of sketching the intellectual history of what would eventually become Deep Ecology. Readers who associate the movement exclusively with Næss will be intrigued by the role of figures such as Philip Wessel Zapffe and Sigmund Kvaløy Setreng, who are better known in Norway but less visible abroad. Næss comes across as a man with a checkered career that hit its stride comparatively late. Far from being carried to success by a global green wave in the late 1960s, he endured students at the University

of Oslo occupying his office and hastening his resignation. The event that shifted the balance within Norway was the Mardøla controversy, a well-publicized attempt to prevent construction of a hydroelectric dam that would divert water from a strikingly scenic waterfall. But the dam was ultimately built. The significance of Mardøla was instead symbolic, as a rallying event for environmentalism in Norway that gathered support from the church as well as from academia and that confirmed Næss's status as the preeminent face of the Norwegian ecophilosophers.

Anker sets up Gunnar Randers, best known as one of the authors of the Club of Rome's 1972 report *The Limits to Growth*, almost as a kind of nemesis to Næss. Randers represented a more technocratic strain of environmentalism that drew scorn from Næss, pushing Randers to regard the intellectuals of the Labour Party rather than the professors at the University of Oslo as his core audience. Like Johan Hjort, the Norwegian biologist who used it as the central concept in his interwar models of optimal whaling and fishing levels, Randers considered equilibrium in nature through the prism of human well-being. Anker's sensitive analysis reveals Randers's role in developing the concept of the sustainable society, with roots in pietistic Lutheranism in addition to the computer labs of MIT. And while Prime Minister Gro Harlem Brundtland pushed through dam projects bitterly opposed by the ecophilosophers, she embraced sustainability, culminating in the Brundtland Commission (under the aegis of the United Nations) and the 1987 publication of *Our Common Future*. Næss never gained such political clout. By the early 1990s, Anker argues, he had become an ornament to the university rather than a driving force on his own, but his ideas had gained devoted and energetic adherents who continued to develop them into a viable philosophy.

The Power of the Periphery is, throughout, a story of paradoxes. Beding, the Himalayan village where Kvaløy described an idealized relationship between humans and their environment, aroused his anger when its residents embraced an industrially inflected lifestyle. Back at home, the popularity of being in wilderness as an escape from capitalism rested on the increasing wealth of individual citizens, who purchased cabins at ever-increasing rates. As Norway sprouted climate research organizations, it also stepped up oil extraction. Green values did not extend to regarding whales as more than economic units to be managed for human benefit. Conspicuous consumption of whale meat is consistent with the veneration of traditional fisherfolk even if it is anathema to many environmentalists: animal rights and environmentalism need not be part of the same whole. Never mind, as Anker points out, that many of those actually making a living on the Norwegian periphery have rather less patience for environmental ideas propounded by metropolitan intellectuals. For the most part the metropolis of record is Oslo, and one might wonder whether the personal history that animates Anker's interest and contributes to the story's richness has also shaped the book's field of vision.

Yet it would be unfair to both Anker and his actors to reduce these paradoxes to illustrations of hypocrisy. Anker's main contribution is to demonstrate that Norwegian environmentalism in the modern age retains a strongly local core, even if its ambitions are global. Environmentalism is a matter of perspective. The view from the periphery may be expansive, but it is always situated, informed by local ideas and bound by local obligations. A generation ago, Richard Grove opened the eyes of historians of science and the environment with his analysis of how environmental ideas developed at the periphery of European empires. Anker has provided a cheerful reminder, for the age of the planetary and the Anthropocene, that even ideas with aspirations to universality have particular and contingent roots.

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