## Pritchard, S. B. and C.A. Zimring. 2020. *Technology and the environment in history*. Baltimore: John Hopkins University Press. ISBN 9781421438993. \$29.00.

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In the 1990s, a few scholars working at the intersection of the history of technology and environmental history formed the special interest group "envirotech." The group has since met twice per year at the annual meetings of the Society for the History of Technology and the American Society for Environmental History. This <u>forum</u> has facilitated wide-ranging discussions, exchanges, and collaborations that have led to numerous self-authored, co-authored, and edited publications now constituting a veritable envirotech historiography.

Until the publication of Sara B. Pritchard and Carl A. Zimring's *Technology and the Environment in History* (2020), however, there was no synthetic overview of the envirotech history field. To be sure, the edited volumes *The Illusory Boundary* (2010) and *New Natures* (2013)—both of which Pritchard contributed to and co-edited, respectively—provided important conceptual frameworks for envirotech history in their introductions and individual chapters. Yet as collections of distinct topics, neither volume offered the kind of cohesive narrative that *Technology and the Environment in History* does, which consists of an introduction, six chapters (on food and food systems, industrialization, discards, disasters, the body, and sensescapes), and a conclusion.

The narrative is very clear and concise, showing how the envirotech nexus informs every chapter by focusing on five key arguments and concepts relevant to them: "(1) porosity, or the permeable boundaries among, technology, the environment, and society; (2) systems—specifically, envirotechnical systems; (3) hybridity; (4) biopolitics; and (5) environmental (in)justice" (p. 7). Indeed, the book usefully illustrates how the intersection of technological and environmental processes shaped, and were shaped by—but never determined, as the authors are careful to qualify—each other. For instance, in the case of industrialization, the authors write that:

...identifying the vital role of previously unappreciated environmental aspects in the industrialization of cotton does not diminish the importance of other social, political, and economic factors, such as European colonization of the Americas, the Atlantic slave trade, or plantation agriculture centered on the institution of slavery. The case of industrial cotton nicely illustrates not only a central premise of environmental history and science studies—namely, the concept of nature-culture—but also envirotech scholarship: the entanglement of nature and technology. (p. 64)

Fast forwarding to the twenty-first century, their chapter on disasters illuminates the promises and perils of multi-causal envirotechnical explanations. For instance, was the Fukushima disaster of 2011 in Japan primarily caused by a historic earthquake and tsunami or was it the result of mistakes in designing, building, operating, or regulating the nuclear plant? Attributing causality to the former risked depoliticizing responsibility away from corporations and governments, whereas attributing it to the latter risked oversimplifying what was, Pritchard and Zimring argue, a "complex—and ultimately tragic—conjuncture of environmental, technological, and sociopolitical factors" (p. 110-111).

Pritchard and Zimring point out in the introduction to their book that envirotech has influenced such related disciplines and fields as environmental anthropology, geography, science, technology, and social studies (STS), and political ecology. Their methodology in the book is thus analytical rather than geographical or chronological, incorporating different approaches to, and perspectives on, the past that "do not necessarily follow political borders or the convenient markers of centuries" (p. 3). The authors acknowledge that it is impossible for such a primer to be comprehensive. The study is thus "partial" because, reflecting their research interests and expertise, "North America, Europe, the modern era, and capitalist economies are overrepresented" (p. 3). As such, Pritchard and Zimring invite "future scholars" to "not only build on but also revise" their work to make envirotech "more global, culturally inclusive, and comparative in scope."

Yet it is important to note that historians of envirotech and related fields who focus on non-Western areas were not "future scholars" at the time of the book's publication in 2020. To the contrary, several had

already published monographs, including these on Latin America: tVera Candiani's *Dreaming of Dry Land: Environmental transformation in colonial Mexico City* (2014), Eve Buckley's *Technocrats and the Politics of Drought and Development in Twentieth-Century Brazil* (2017), Mikael Wolfe's *Watering the Revolution: An environmental and technological history of agrarian reform in Mexico* (2017), Matt Vitz's *A City on a Lake: Urban political ecology and the growth of Mexico City* (2018), and the edited volume *A Living Past: Environmental histories of modern Latin America* (2018), to name just a few English language works. For these current scholars, Pritchard and Zimring's invitation to build on and revise *Technology and the Environment in History*'s Euro-American centric narrative ironically reflects the very asymmetry in power and influence between the Global North and South that they acknowledge is problematic—an asymmetry wherein historians of the latter are expected to be familiar with the historiography of the former, but not vice-versa.

Notwithstanding its self-limiting geographic scope, the book convincingly demonstrates that envirotech is a versatile conceptual tool capable of illuminating the complexity of human-technology-nature relations over time, while not obscuring the accountability of human actors and institutions for responsibility management of technologies that are clearly in their control. From this analytical perspective, the book is well-suited to introducing envirotech history to students, scholars, and other interested laypeople.

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