



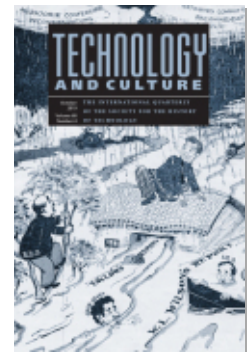
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The Promise of Infrastructure ed. by Nikhil Anand, Akhil
Gupta, and Hannah Appel (review)

Tim Oakes

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(Review)

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rary sociotechnical imaginaries. Smith's careful analysis of corporate graphics and imagery also throws into relief the relative inattention to visual materials in the rest of the volume.

Dreamscapes of Modernity offers a flexible, yet rigorous model for positioning politics at the center of STS by emphasizing the imaginative and normative as well as the material and institutional dimensions of scientific and technological projects. The concept of sociotechnical imaginaries represents a vital contribution not only to Science and Technology Studies, but also to fields such as critical geography, cultural studies, and political theory—a reminder that contemporary configurations of science, technology, and power could have been, and still can be, otherwise.

DANIEL WILLIFORD

Daniel Williford is a Ph.D. candidate at the University of Michigan and will be starting a position as assistant professor of history at the University of Wisconsin–Madison in fall 2020.

The Promise of Infrastructure.

Edited by Nikhil Anand, Akhil Gupta, and Hannah Appel. Durham: Duke University Press, 2018. Pp. 264. Paperback \$25.95.

The Promise of Infrastructure emerged from a 2014 seminar at the School for Advanced Research in Santa Fe. Its first iteration was a series of brief posts that appeared on the *Cultural Anthropology* website in 2015: “The Infrastructure Toolbox.” These posts were varied and evocative, and they offered a useful starting point for a student’s journey into the surprisingly rich, nuanced, and complex world of the “infrastructure turn.” If the original posts offered just enough to pique one’s interest, the full-length versions now published in *The Promise of Infrastructure* pull together and engage in much greater depth the key themes of the Santa Fe conference. At the same time, however, the volume seeks to more explicitly come to terms with the infrastructure turn itself. Since 2014, the study of infrastructure has grown significantly, and the volume seeks to confront the questions “why infrastructure?” and “why now?” In response, *The Promise of Infrastructure* offers a provocative reflection on the current academic, social, and political moment that we find ourselves in.

That moment is one, we might say, of crumbling infrastructure. There’s a lot of decay, ruin, and rubble in this book. Most of the essays convey a palpable sense of the end of something: liberalism, modernity, faith in the progress of development, humanism and the primacy of the human subject, a stable climate, or carbon-based energy. The promise of these things—or more accurately, the *failed* promise—has been a promise materialized through infrastructure. While the writers of this volume thus suggest that the study of infrastructure can offer much critical insight into the promises of an Anthropocentric world gone awry, they also suggest that

such insight—that is, into how our human worlds are caught up in and formed through nonhuman materialities—is absolutely necessary to charting possible futures in the Anthropocene.

Following the editors' introduction, which happily does not waste our time with summaries of the chapters to come but instead offers a useful review of the broader themes underlying the infrastructure turn, the volume is divided into three parts: time, politics, and promise. Temporality is of course fundamental to promise, and the chapters in part one—by Appel, Gupta, Harvey, and Schwenkel—all explore how infrastructures materialize the promises of a particular future (of, say, oil-fueled modernity, efficient connectivity, democratized access to energy resources), and how their suspended construction, fitful maintenance, and eventual decay or destruction suggest not simply the always-incomplete reality of this promise, but also the need to move beyond an analysis that imposes a linear teleology on infrastructure development. That is, instead of viewing infrastructures in terms of plan-construction-completion, we might do well to think of them as always ongoing, always, as Gupta suggests, in the process of becoming something else.

In part two, chapters by Von Schnitzler and Anand explore the technopolitical dimensions of infrastructure. Here it is less the *decay* of infrastructures that is at issue than their *durability* relative to a state's administrative and/or juridico-political arrangements. Material infrastructures of water provision, for example, may outlast successive colonial, nationalized, and privatized regimes of ownership. Their material durability thus conditions and distorts political and economic "transitions" (in places like post-apartheid South Africa and neoliberalizing India) in unpredictable ways that help us better understand why certain social formations resist transformation even after the political institutions upholding those formations have been swept away.

Chapters by Larkin, Bowker, and Boyer in part three offer more sustained reflections on how the study of infrastructure might in fact redeem the failed promises of the anthropocentric crises that we find ourselves in. These chapters more explicitly situate the infrastructure turn within what Boyer calls the "anti-anthropocentric turn." This turn away from "the toxic legacies of radically human-centered thinking and action" (p. 226) embraces what we might think of as a more honest (and indeed revolutionary) reembedding of the human and nonhuman, the material and the cultural. This may mean, for instance, recognizing how our knowledge production, social theories, or ideas of the human subject, are all based on (and thus limited by) infrastructures of carbon energy extraction and consumption. It may mean that we learn to see in everyday infrastructures the constitution of our political lives.

While *The Promise of Infrastructure* as a whole offers a surprisingly comprehensive condemnation of the "radically human-centered thinking"

that has produced the Anthropocene challenge that we now face, it also suggests the tools we will need to map out possible futures. Appropriately, these are not prescriptions promising a better future. Rather they are openings for possibility, for action, and for wonder.

TIM OAKES

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Tim Oakes is professor of geography and director of the Center for Asian Studies at the University of Colorado Boulder.

Natural Resources and the New Frontier: Constructing Modern China's Borderlands.

By Judd C. Kinzley. Chicago: University of Chicago Press, 2018. Pp. 272. Paperback \$35.

By the time Judd Kinzley's new book was first published in June 2018, China had already dramatically escalated an aggressive effort to secure the restive Muslim population in the Xinjiang Uighur Autonomous Region in the far west of country. Cameras with facial recognition technology and checkpoints policed virtually every street corner. A more old-fashioned totalitarian move led to the imprisonment of over a million ethnic Uighurs in re-education camps. Kinzley's timely book provides an explanation for how and why the Chinese state arrived at these draconian measures. Using a wide array of archival sources from China, Taiwan, the Russian Federation, and the Xinjiang Uygur Autonomous Region, Kinzley argues for a layered model of state formation in China's border regions, with broad applications to the borderlands of the Global South. By focusing on how the push to exploit natural resources altered the cultural geography of the region, Kinzley makes an innovative intervention in modern Chinese history and the creation of its borderlands.

The "layered state" model holds enormous explanatory power. In the case of Xinjiang, the layered state was first created in the late nineteenth century when a weakened Qing state had to counter multiple foreign powers eager for access to the region's natural resources. For the imperial state from the Han Dynasty (206 BCE to 220 AD) to the Qing (1644–1911), agricultural reclamation had long been one of the linchpins of frontier policy. To enact the bountiful visions of plenty which successive officials heralded as the promise of reclamation, however, required capital-intensive investment in irrigation networks and infrastructure. By the end of the nineteenth century, a cash-strapped Qing state, saddled by escalating domestic turmoil and indemnity payments from losing a series of conflicts to foreign powers, could no longer afford yearly support payments. Desperate local officials turned to the region's mineral wealth as a way to generate much needed income. But opening mines also required state investment—and