

Book Review

Vaughn, Sarah E. 2022. *Engineering Vulnerability: In Pursuit of Climate Adaptation*. Durham, NC: Duke University Press.

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Engineering Vulnerability, written by sociocultural anthropologist Sarah E. Vaughn, is a fascinating book that will be of interest to multiple fields of research across environmental politics. Vaughn's fieldwork and archival research into water management and climate adaptation in Guyana draw a long and complex history of a low-lying coastal settlement. Nothing about this history is simple, but she manages it all deftly, telling a story that historicizes the disastrous flooding of 2005; the colonial water management first of the Dutch, then of the British; and the changing demographics of a state whose independence has not ended either racial strife or settlement, with only 10.5 percent of the officially recorded population identifying as Indigenous Amerindian. Vaughn draws widely on theory, using a critical ethnographic approach to give detail and specificity to a story of climate vulnerability. This approach allows her to expand notions of climate adaptation, vulnerability, and the relationship of race to both. *Engineering Vulnerability* will therefore be of interest to environmental researchers from diverse theoretical backgrounds, all of whom will take something from this intriguing book.

The Guyana context is of great interest in and of itself. A member of the Alliance of Small Island States (AOSIS) and the Climate Vulnerable Forum (CVF), Guyana is counted officially as a "small island developing state," despite not being an island. It is also a multiracial settler society, with its own politics of race that, Vaughn is careful to explain, does not center around Whiteness. Vaughn discusses racial politics in the book, but it is not for the most part a book about coloniality or racial capitalism. Instead, Vaughn asks us to consider racial politics in global contexts of post-emancipation, where settlers are non-White. The majority of the population are Indo- or Afro-Guyanese, brought to Guyana as enslaved or indentured laborers, now trying to make lives on water logged terrain made habitable only through colonial intervention, the forced labor of their ancestors, and the knowledge of Indigenous people.

Vaughn's understanding of vulnerability is hinted at in the book's title but is more closely reflected in the title of the book's introduction: "Where Would I Go? There Was No Place with No Water." What Vaughn draws out so well is that climate adaptation has a politics of where: where is home, where is a valid settlement, where will adaptation be done, where will be deemed worthy of

(re)investment. Vulnerability is engineered, in the increasingly widely understood sense of being produced, and targeted at certain populations, but it is also engineered in Guyana as the entire coastal settlement is threatened. *Engineering Vulnerability* shows that there is a level of event in which everyone's vulnerability becomes apparent. The threat of sea level rise and flooding runs across race and class, with the most financially comfortable area of Sophia also being the most flood-prone. This can lead to alliances, and an acceptance of and a learning to live with, vulnerability as ordinary. The other side of this politics of constant vigilance is that it requires a lot of resources. As climate finance, aid, and loss and damage continue to be debated, Guyana is both contributing to the high-mitigation demands of AOSIS and the CVF and opening gold mines and exploring for oil to pay for adaptation.

The book's highlight is chapter 7, "The Ordinary." The structure of the book, moving from histories of colonialism that address flood knowledge and engineering to contemporary accounts of engineering, then finally to "the ordinary," makes this final section interesting and spiriting. Our attention is turned back to Margaret, a resident of Sophia featured in the introduction as a participant in Red Cross activities. Margaret does not rely on "measurement" to gauge her relationship with water, she does not consult engineers or vulnerability assessments: she watches the clouds and uses intuition, "both a necessity and a pleasure in itself. It spreads fast, even without the help of expert clarification" (178). The people of Sophia become characters in this chapter, replacing the engineers and their dams, canals, and materials. The shift is fascinating, and the previous chapters suddenly feel like a masculine world of tools and data sets. The men who huddle and discuss borehole drills and the "beautiful curves" produced by their machines feel like a far-removed community, while the Sophia residents use bleach and intuition to manage their own water supply. The difference is so stark: "in no way do the actions of ordinary citizens and engineers rely on similar timelines, histories, or technologies" (11); even more attention to this tension would have been interesting.

One question that remains is how Amerindians feature in the story of Guyana's climate vulnerability. The racial politics as explained by Vaughn makes sense of their relative absence from the story, as both engineering and coastal settlement are realms dominated by the Indo and Afro-Guyanese. However, a book that is also about settler colonialism could have made more space to discuss the people whose lands have been settled. But overall, this excellent book handles a huge amount of data and complexity with skill. Throughout the book, Vaughn nudges and pushes at the boundaries of contemporary debates in environmental politics. This makes for an unexpected read, but also an inspiring one. This book will endure in the minds of those who read it.