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In Mosquito Trails: Ecology, Health, and the Politics of Entanglement, Alex Nading (2014) investigates how dengue fever is understood in Nicaragua. His work centers around the low-income city Ciudad Sandino, where he examines local knowledge about the virus and the politics of vector control. Using anthropological methodologies of participant observation and in-depth interviews with brigadistas (a predominantly-female corps of community health workers), city sanitation workers, and individuals who sell recycled garbage, Nading produces a narrative ethnography that explains how Ciudad Sandino residents navigate the politics and practices of dengue eradication.

Central to this book is the concept of entanglement. Nading develops “the politics of entanglement” to describe how health workers, residents, mosquitoes, and the landscape of Ciudad Sandino are connected through dengue. Entanglement, according to Nading, refers to “the unfolding, often incidental attachments and affinities, antagonisms and animosities that bring people, nonhuman animals, and things into each other’s worlds” (p.11). Residents’ interactions with one another, mosquitoes, and the socio-cultural landscape of the city leads Nading to argue that the dominant global health discourse on dengue—which says humans and mosquitoes are locked in mortal competition—is not applicable in the context of Ciudad Sandino. Rather, dengue is understood as a set of “ongoing relationships with species and objects” (p. 92). The brigadistas with whom Nading works view managing dengue as they view managing the household environment, and the human and nonhuman beings within it. Rather than separation from the environment, dengue control necessitates engagement with the environment.

Nading explores the concept of entanglement through the three parts of the book: Infrastructure, Bodies, and Knowledge. In part 1 “Infrastructure,” he engages with the urban space of Ciudad Sandino ethnographically and historically, using beautiful descriptions of the city’s landscape to trace material and political-economic attachments among the city’s human and non-human residents. In particular, Nading examines the formal and informal economies of garbage collection to understand Ciudad Sandino’s interaction with mosquitoes. Garbage collection is at once seen as a “dirty” business, a means for personal survival, and a civic contribution. Nading shows that these narratives are tied up with political implications for how waste and human-mosquito movements should be managed.

In part 2 “Bodies,” Nading focuses on the role of brigadistas and their entanglements in dengue control efforts. Through detailed ethnographic examples, Nading describes how the brigadistas are in constant dialogue with place, noting, “[their] senses of place were the key to developing senses of health” (p. 91). Attachment to place contrasts with public health protocol for the management of city space, which seeks to alienate individuals from urban natures. Nading also illustrates the brigadistas’ entanglement with dengue through their descriptions of the mosquitoes as single mothers. Rather than employing rhetoric of
separation in mosquito control, brigadistas linguistically engage with the vectors by making mosquitoes more relatable, and therefore more understandable.

Part 3 “Knowledge,” explores the social and institutional entanglements present in dengue control. In this section, Nading integrates a Foucauldian discussion of bio-political surveillance, showing how public health surveillance becomes entangled with political surveillance, and the ways in which the concept of “community participation” takes on political meanings. Nading also examines how people react to seasonal dengue epidemics, re-forming their ideas of “place” based on the temporal incongruities between mosquito, human, and climatic behaviors.

This book is grounded in theories from political ecology and critical medical anthropology. Drawing upon the work of Margaret Lock, Nancy Scheper-Hughes, Paul Farmer, and Michel Foucault, Nading argues that critical medical anthropology is a study of entanglement; in other words, the inequalities that influence attachments between individuals, knowledge, and places become manifested as health inequalities. By combining a critical perspective on dengue control efforts with political ecology—the notion that political-economic structures are in a dialectic relationship with the environment—Nading also attempts to elucidate the “more than human” elements of entanglement (p. 13).

Nading employs a critical approach when discussing the narratives and metaphors surrounding dengue. Drawing upon Scheper-Hughes and Lock’s (1987) three levels of bodily analysis, he writes, “the body, like nature, is variously experienced as a social metaphor, as a site of phenomenological experiences of pain and pleasure, and as the subject—both focus of interest and site of practice—for state and citizen formation” (p. 213). The individual body becomes infected with dengue, acts as a social metaphor for the cleanliness of the barrio, and is subject to political surveillance as a reflection of the State’s success in dengue eradication. Extending Mol’s (2002) concept of the “body multiple,” Nading integrates Lock’s (1993) notion of “local biologies” into his analysis, illustrating how the various political entanglements present within Ciudad Sandino are reproduced within individual bodies. For example, he uses the case of a girl afflicted with dengue and the neighborhood’s conflict with the Ministry of Public Health (MINSA) over responsibility for garbage collection. In this case, dengue is the biologization of structural and community entanglements. Through examining the bio-political entanglements of humans and dengue, Nading complicates Foucault’s notion of biopower. Throughout the text Nading demonstrates that controlling dengue vectors often meant regulating human activity and interactions, justifying state power over human life in the name of mosquito habitat control. As a result, Nading introduces the novel concept of interspecies biopower. This concept places a critical slant on current multispecies literature wherein organisms are said to be entangled in a “meshwork” of connections (Ingold 2008). While this is certainly the case in Ciudad Sandino, Nading demonstrates that these organisms are also connected in dialectic and hierarchical ways.

Although Mosquito Trails employs critical theory, the author’s lack of engagement with syndemics is a shortcoming of the book. A term coined by Merrill Singer (2009), syndemic theory refers to a biosocial concept within critical medical anthropology wherein two or more epidemics in a population have a deleterious biological interaction within a particular social context, exacerbating the health consequences for that population. Nading briefly references syndemic theory in a footnote on dengue and H1N1, yet uses the term as a synonym for co-morbidity rather than a biosocial entanglement. The complex interaction that constitutes a syndemic fits well with Nading’s ideas about entanglements between public health, infrastructure, and pathogens.

This book is an excellent anthropological work, presenting a model to study global infectious diseases in local contexts. Nading’s work is innovative; he does not just study cultural constructions of place or understandings of the body, but also how these concepts become entangled within politics, the environment, and history. Nading elevates the nonhuman actors in his study, making mosquitoes and
places as much “informants” as his human collaborators. Yet if the mosquito is going to be regarded as an actor in this study, then Nading’s analysis would benefit from asking how their activities shape, and are shaped by, political and social relationships. The mosquito-as-single mother trope shows how *brigadistas* make meaning from their work, but it is not dialectic: how do these meanings impact mosquitoes and their habitats, and how do the mosquitoes respond? Perhaps here Nading could engage with biocultural literature—for example, Peter Brown’s (1981) study on endemic malaria in Sardinia—to illustrate how local ecologies produce mosquito and human adaptations to dengue in Nicaragua. This well-written book is an exceptional resource for anthropology graduate students interested in environmental and global health issues. Upper-level undergraduate students may also benefit from this work, provided they have a strong background in critical medical anthropology, political ecology, and Foucault. Upon finishing the book, student anthropologists will be inspired to identify the entanglements present within their own field sites.

**References Cited**

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