NON-HUMAN AGENCY IN ENVIRONMENTAL HISTORY

Sheila Blair

Historians use the concept of agency to trace causation and change over time, employing it to emphasize contingency over inevitability and to remind us that nothing is ever predetermined. While it is usually assumed to be the exclusive realm of the human species, environmental historians have demonstrated that historical agency also pervades the non-human, or more-than-human,[1] world. Although many non-academic communities have long conceived of more-than-human personhood, it is noteworthy that a growing number of professional historians are also exploring this terrain. What follows here is a survey of three environmental historical texts that use the concept of non-human agency to draw meaningful conclusions about contingency and change in the outcome of world-historical events.

The texts presented here reveal that the ways in which environmental historians engage non-human agency are dynamic and carry widely varying implications for whether the concept reinforces or destabilizes the long-standing centrality of the human subject in history. Many historians interpret and include more-than-human actors by virtue of their proximity or similarity to homo sapiens, or by the way their behaviors impact human life within conventional historical narratives. Yet in certain branches of environmental history, a new approach is emerging that seeks a more expansive definition of non-human agency by including characteristics beyond proximity or equivalence to what humans do. Such an approach gestures towards a world full of more-than-human activity that goes on ceaselessly, with or without the awareness or involvement of humans. Challenging anthropocentrism can open up exciting new possibilities for research that centers more-than-human activity, enriching environmental histories while fortifying efforts towards a more sustainable and resilient future.

J.R. McNeill's *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* is a seminal environmental history that centers non-human creatures as historical actors. McNeill's research reveals how outbreaks of mosquito-borne malaria and yellow fever spread differently through human populations and, in so doing, shaped the geopolitical development of the region. His analysis looks at mosquitoes as historical actors, their behaviors blending invisibly with human activity to shape European attempts at settlement and conquest. McNeill explains that the high incidence of tropical fevers in European colonial advances was caused by multiple factors: differential immunity, ecology, climate, and the coevolution of human and mosquito behavior. While certain indigenous populations carried some resistance to malaria and yellow fever, Europeans did not. Furthermore, the diseases' vehemence manifested differently in different places; yellow fever spread more easily in urban environments while malaria did so in rural areas. Perhaps most significantly, ecological changes triggered by the developing plantation economy increased the potential spread of both diseases, and of yellow fever in particular. The burgeoning global trade in sugar caused widespread deforestation on Caribbean islands, reducing the population of insectivorous birds, while ships and port cities offered a plethora of warm and humid water storage facilities uniquely hospitable to mosquito breeding.[2] Changes in human behavior and economic activity created new ecological spaces for mosquitoes and mosquitoborne illnesses to spread and thrive, while differential immunity conferred invisible protection on some human populations more than others.

All of these factors contributed to the geopolitical outcomes of imperial activities in the region. Europeans regularly attempted conquest and/or settlement in the greater Caribbean from the fifteenth through the nineteenth centuries; perhaps the major obstacle they faced was disease. In one particularly dramatic example, eighty-five to ninety percent of all Europeans died during the attempted settlement of Kourou (a town on the coast of French Guiana), most likely of yellow fever, possibly in combination with other tropical diseases.[3] In military engagement, soldiers fared no better—smallpox and malaria decimated the colonists and the British respectively during the American Revolutionary War, the diseases cleaving to partisan lines because of differential immunity.[4] While Americans were more vulnerable to smallpox, the British had a greater susceptibility to malaria, which was widespread in the low country of the Carolinas where southern British campaigns ultimately faced defeat at Yorktown.[5] Not until medical professionals discovered that mosquitoes were a major vector of tropical fever, and implemented technological solutions to protect humans from their bites, were the raging epidemics and their influence on imperialism in the Caribbean brought to an end.

What McNeill's analysis helpfully illustrates is that even when humans are entirely unaware of the consequences of their coexistence with the non-human world, they are affected by it. In making his persuasive contention that mosquitoes were a causal factor in the geopolitical history of European imperialism, McNeill's analysis adheres to standard conventions of anthropocentric historical narrative. Mosquitoes are historical actors to the extent that they influence and shape human affairs; their agency is defined by how significantly their behavior affected human activities.

In *Floating Coast: An Environmental History of the Bering Strait*, historian Bathsheba Demuth builds upon the concept of more-than-human agency in environmental history. Demuth skillfully demonstrates how whales, caribou, walruses, foxes, minerals, and sea ice differently impacted geopolitical outcomes as historical actors. In addition to recognizing these creatures' influence on human affairs, Demuth also highlights more-than-human agency as inherent to sentient life in and of itself, showing that choice, culture, and affect are fundamental elements of a "will-filled universe" [6] and not the exclusive province of humanity. The indigenous peoples of Beringia, some of whom she lived and learned with as a younger woman, guide her in contextualizing the relationship between human sentience and the sentience of non-human creatures. Yupik, Iñupiat and Chukchi helped her understand that "[w]ith no hard line between humans and other persons, land and seas were alive with sentience, judgment, and perilous whims."[7]

Whales, in Demuth's history, are active, agentive responders to the activities of humans. In contrasting Yupik and industrial whaling strategies, Demuth highlights whales' choices either to give their lives to the hunter or to resist. Facing Yupik hunters, she explains, bowhead whales "cooperated with human persons through a specific kind of transformation: by giving themselves over to die."[8] After multiple seasons of mass killing by industrial whaling ships, however, the same whales recognized the unique threat posed by commercial whaling and chose to flee.[9] Whales recognized threats, communicated through shared culture, and practiced resistance: "Their culture, at the surface observed by commercial hunters, became one of choosing not to die for the market."[10] Whales' decision-making also impacted commercial whaling. Whalers struggled to maintain profit margins once bowheads began actively avoiding them, and awareness of whale sentience and affect became a source of moral distress for both sailors and consumers back home.[11] Yet the effects of whale behavior on human society reflect

only one aspect of their sentience—fundamentally, their agency was revealed by decisions they made to protect or to sacrifice their own lives.

Floating Coast is more than an examination of the historical outcomes that can be traced to non-human behavior (whales or otherwise). Indeed, Demuth's broader and deeper concern is to probe the intimate and affective relationality that has historically structured existence in the Arctic: "That is the contradiction of existing in Beringia: in order to live, something, some being is always dying."[12] Demuth's more-than-human agency only partially hinges on its tangible effect on the human world. She locates it in the reciprocity of all multispecies interactions and presents it as inherent to the willfulness of a living universe. In so doing, she broadens the horizons of writing environmental history.

Anna Lowenhaupt Tsing's *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* pushes the boundaries of non-human agency in environmental history even further. Starting from the premise that industrial capitalism has profoundly damaged landscapes and ecologies the world over, Tsing looks beyond declensionist lament to a more important question: "What emerges in damaged landscapes, beyond the call of industrial promise and ruin?"[13] One entity that emerges is matsutake, a wild *mushroom* that thrives in humandisturbed forests and fetches a high price as a gourmet item on the global market.[14] In framing her inquiry this way, Tsing also directly challenges the convention of anthropocentrism and its implicit alignment with the progress narratives that have fueled industrial capitalism. Instead, she points out that "allowing only human protagonists into our stories is not just ordinary human bias; it is a cultural agenda tied to dreams of progress through modernization."[15] To step beyond this dream of progress and its shadow companion, ruin, Tsing focuses on more-than-human entities as multispecies world-builders and as protagonists in historical narratives.

Tsing's focus on multispecies assemblages, rather than on individual species identities, destabilizes the centrality of the human subject while uncovering unlikely ecological resilience and survival. Assemblages, Tsing argues, are more than the sum of their parts, their conceptual open-endedness accounting for the fluidity and change over time that characterize living ecological communities.[16] Furthermore, individual species mustn't necessarily prove their primacy within the assemblage or their "human equivalence (as conscious agents, intentional communicators, or ethical subjects)," [17] to warrant investigation or attention. Matsutake *mushroom* assemblages also include pine trees and oak trees, the *mushrooms*' primary arboreal hosts. Following these assemblages across Japan, Oregon, southwest China, and northern Finland, Tsing uncovers "the world-building proclivities of matsutake"[18] in the midst of vast deforestation and human disturbance. The resilient ecologies of pine trees, oak trees, and matsutake *mushroom*s may form assemblages of environmental historical significance, regardless of whether or not each individual species appears conventionally significant. By tracking the proliferation of matsutake assemblages through landscapes damaged by humans, Tsing offers a blueprint for radically decentering human hubris, reminding us that the intensity of human disturbance in the Anthropocene does not justify narratives that assume humans have a singular power to shape the living world.[19]

While environmental historians build a body of research that investigates the role of nonhuman agency in historical change, they should be prepared for paradigmatic and existential questions to arise. As scholars tasked with writing about change beyond the human, they will be on the front lines of ontological inquiries into the boundaries between

human and more-thanhuman agency; the texts reviewed in this paper are testament to the dexterity and skill with which environmental historians have already engaged these questions. No matter how powerfully humans have altered and continue to alter the environment, change comes back the other way as well: whenever and whatever we change, also changes us in turn.[20] Although anthropogenic causes of contemporary ecological crises to a certain extent do justify an anthropocentric focus, it is equally necessary to recognize the survival and resilience exhibited by other creatures with whom humans share the outcomes of industrialism and global capitalism. Writing with an open ended concept of non-human agency and personhood can thus fortify efforts for a more sustainable future while gesturing towards potential future research in environmental history.

ENDNOTES

1 I will use the terms "non-human" and "more-than-human" interchangeably throughout this essay.

2 J.R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* (New York: Cambridge University Press, 2010), 47-52.

3 McNeill, *Mosquito Empires*, 132-135.

4 McNeill, *Mosquito Empires*, 200.

5 McNeill, *Mosquito Empires*, 199.

6 Bathsheba Demuth, *Floating Coast: An Environmental History of the Bering Strait* (New York: W.W. Norton & Company, 2019), 20.

7 Demuth, *Floating Coast*, 20.

8 Ibid.

9 Demuth, *Floating Coast*, 41.

10 Demuth, *Floating Coast*, 43.

11 Demuth, *Floating Coast*, 45-46.

12 Demuth, *Floating Coast*, 315.

13 Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton and Oxford: Princeton University Press, 2015), 18.

14 Tsing, *Mushroom*, 3-4.

15 Tsing, *Mushroom*, 155.

16 Tsing, *Mushroom*, 22.

17 Tsing, *Mushroom*, 158.

18 Tsing, *Mushroom*, 211.

19 Tsing, *Mushroom*, 180.

20 This line is inspired by the Earthseed verse in Octavia Butler's *Parable of the Sower* (New York and Boston: Grand Central Publishing, 2019), 3.