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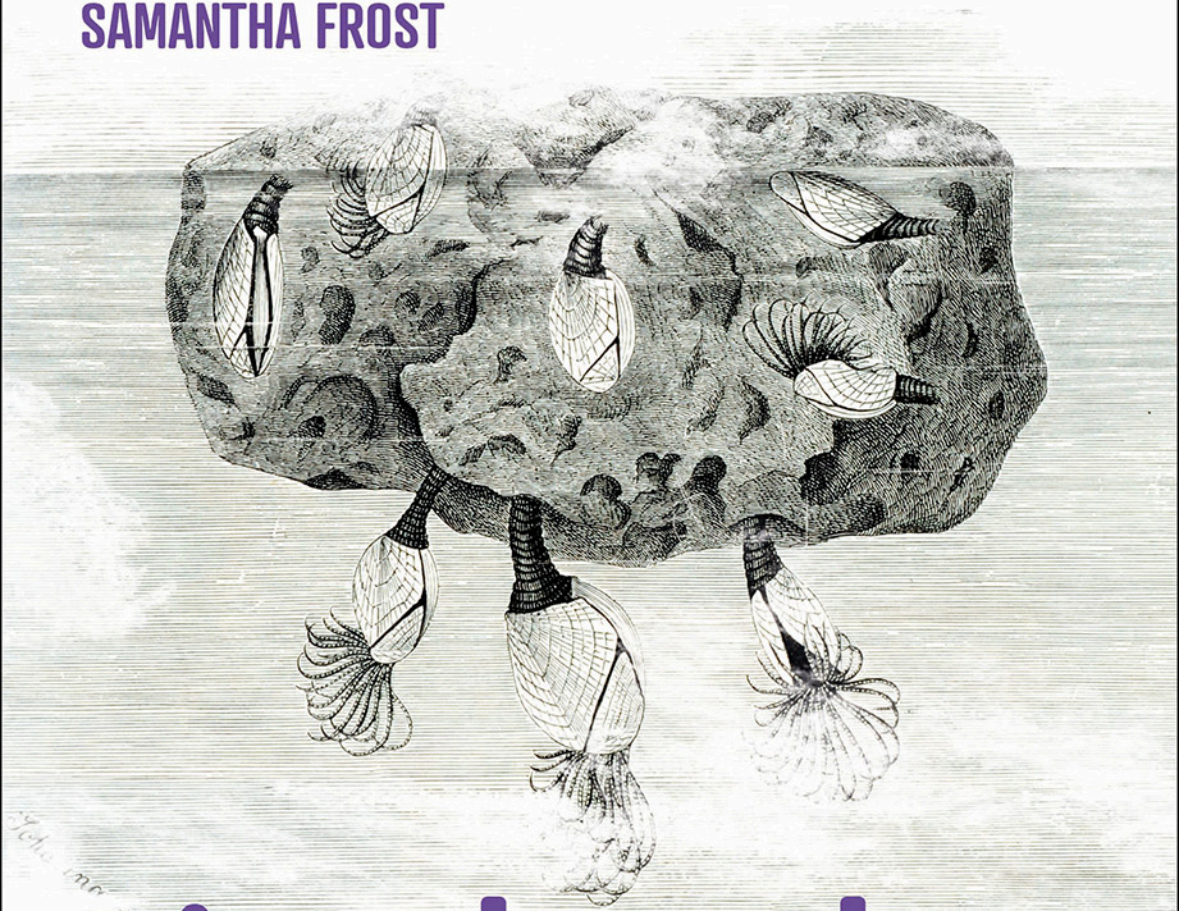

Biocultural Empire

New Histories of Imperial Lifeworlds

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For our beloved children
who make our worlds

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Acknowledgments

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Introduction: Biocultural Empire as Anticolonial Method

Antoinette Burton, Renisa Mawani and Samantha Frost

Human species supremacy is one of the most persistent fictions at work in the field of modern British imperial history today. This myth continues despite a rich body of scholarship which explores how agents of the colonial state—in their efforts to create and sustain a form of political economy that would serve white western political and economic interests and imperial capital in India, Africa, and the spaces of white colonial settlement—struggled to possess the land, resources, labor, and personhood of colonized and enslaved peoples. Not only have scholars made the case for the role of ecological crisis in the making and unmaking of empire, but histories that center the challenges faced by those who sought to exert mastery over colonial environments and ecologies are arguably indispensable to any account of where imperialism took root, where it endured, and when it did not. Taken together, established work and new research illustrate that patrons and champions of the extension of British authority, their considerable efforts to secure colonial authority notwithstanding, were on the back foot when it came to managing the biodiverse more-than-human worlds that were caught up in, and often undermined, empire's global ambition.

In spite of a growing body of scholarship linking ecology and empire, rarely in British imperial history-writing is the boundary-line between human and nonhuman worlds understood as precarious, porous, or open to mutual transformation, let alone as a seedbed for dissent, disruption, or critique: the "political ecology of rebellion" by any other name.[1] In his recent hidden history of opium, Amitav Ghosh writes that "the necessary vocabulary does not yet exist for thinking about history in a way that allows for the agency of nonhuman entities."[2] Thus, changes in imperial environments are typically seen as having been designed or effected *by* humans and visited *upon* colonial landscapes,

including animals, fauna, and biomes. And where disequilibrium in the sphere of colonial hegemony has been made visible by research on extractive practices relating to water, minerals, cattle, or cotton, the emphasis has typically been on forms of resistance mobilized by the men and women subject to imperial rule rather than the ways in which more-than-human worlds challenged the ambitions of imperial pursuits.

The idea that domains designated as "nature" or "the natural world" are themselves forms of vibrant matter that reshape and direct human relations and capacities is virtually unheard of in British imperial histories.[3] Even an innovative study like James Hevia's *Animal Labor and Colonial Warfare* does not imagine the interdependence of human and nonhuman worlds animating that history. This important work shows how a variety of animals were recruited into the colonial military project of the Raj, were subject to terrible labor regimes from which there was little or no escape, and died at unprecedented rates.[4] Hevia does concede that animals had an impact on military outcomes. But in doing so, he likens the animals to subalterns, thereby reiterating a human (and white) supremacist framework in which only Europeans are regarded as actors—a reminder of how anthropocentrism exerts its conceptual and racial force even when something like animal power is seen to be a subject of historical analysis. In her study of the role of horses in shaping colonial power in Southern Africa, Sandra Swart comes closer to narrating a history of mutuality and reciprocity when she suggests that horses "altered the biophysical and social environments in a number of ways."[5] Yet it is rare enough for historians of the modern empire to do more than add animals to the human scene or to place them in an "interactive" frame, replicating what one might call the liberal encounter model at the heart of dominant narratives of British imperialism.[6]

Animals and their agency as subjects have been most commonly at the center of recent work on nonhuman impacts in empire history. It has been much less common for British imperial historians to examine the broad ecological contexts of flora and fauna as constitutive forces that actively compose and recompose humans and environments as they take form. They tend, instead, to see those ecologies as merely the backdrop, field, or setting of colonial rule. Indeed, invocations of the "interspecies" rubric often center animals at the expense of the biome—in part because "interspecies" as an analytic frame rests on the binary of human/animal rather than tracking the fullness of what constitutes more-than-human worlds. The aim of such animal-centered projects is often descriptive rather than methodological *per se*. Thus, work on animals and empire, for example, does not fully address the consequences of species

interdependence and *exchange* for destabilizing colonial intention and ambition *in situ*, thereby falling short of entertaining an argument about the impossibility of human species supremacy *tout court*.[7]

Contributors to this collection begin to address these questions about wider imperial worlds by investigating what empire histories look like when the species supremacy of human actors is questioned rather than assumed. Or more precisely, they ask how empire itself takes shape in both symbolic and material terms when the conditions of imperial power, experience, knowledge, and identity are understood to be, *a priori*, a mix of "nature" and "culture," of humans, animals, and botanical matter. In bringing what we call empire's "biocultural histories" to the fore, we draw inspiration from Samantha Frost's 2016 study, *Biocultural Creatures: Toward a New Theory of the Human*.[8] Frost is a political theorist and not a historian. But as we suggest below, her theoretical insights are very much in conversation with other challenges to empire history, written by Indigenous, Black, and scholars of color, and which are crucial to unsettling the primacy of the human as *the* primary historical actor. The utility of Frost's biocultural argument lies in its insistence that we cannot distinguish between human and habitat: what counts as life is the consequence of constant movement and energy, both within any given body and between bodies and their environments. Rather than being discrete and self-contained, organisms are porous and interdependent. By tracing how biological processes work at the cellular level, Frost makes the case that there is so much traffic across the permeable boundaries of organisms, and this circulation occurs at so many scales, that it is impossible to sustain the nature/culture divide as anything more than an artifact of Eurocentric philosophical traditions, albeit enduringly powerful ones.

At the heart of Frost's analysis is the realization that if one synthesizes research on different life processes in animal and human biology—research that is often conducted discretely, in sub-disciplinary silos—the "human animal" thus recomposed does not at all resemble the figure of the human that governs our imagination, either in politics, history, or even in dominant discourses of science and medicine. The notion of the "biocultural" that Frost elaborates integrates disparate insights into an unfamiliar version of the human. Her attention to microscales—the molecular, the cellular, and the energetic—works as a bulwark against a conceptual slippage back into a vision of the human that is clearly a historical accretion, but one that has also saturated our thinking and self-understanding so fully that we often do not know that we are mobilizing its conceptual terms in our analyses.

Historians of empire know that majoritarian theories of the human are steeped in colonial ways of knowing, doing, and being. This is, effectively, the ontological condition of postcolonial history. What the biocultural foregrounds is an emphasis on processes of exchange, entanglement, and becoming. When read alongside the field of empire history, Frost's book asks imperial historians to reckon with a dominant and durable interpretive framework which often approaches the human-nonhuman divide in terms of animals alone and which does not often question the very sovereignty and boundedness of the imperial subject and its social formations. This is a significant theoretical and methodological challenge. It requires a reimagining of empire as itself the *effect* of biocultural processes. These processes, in their vitality and animacy, continually make and remake the parameters of empire and shift and shape imperial power relations in ways that invoke changing intensities of colonial violence while also opening spaces of unpredictability, uncertainty, and creativity. Frost's book invites us to apprehend the biocultural character of empire *qua* empire as relational, reciprocal, and always in motion, rather than as a binary or a one-directional movement from colonizer to colonized.

Of course, historians of imperialism have challenged the colonizer/colonized divide for decades, arguing that metropole and colony were part of a wider circuit of exchange, that empire might more accurately be envisioned as a web of relations, or that imperial power operated through a polycentric network.[9] However, when read through Frost's formulations of the biocultural and the creaturely, imperialism becomes an object of inquiry that demands new scales, angles, and categories of analysis. For example, empire "from below" would present a very different perspective, drawing attention to the level of matter and energy, cells and membranes, and asking scholars to keep in focus the constant movement between humans and environment and the changes in colonial and imperial control that such fluctuations produced. Through this framework, imperialism might more accurately be viewed as a circulating force of power that composes, decomposes, and recomposes life in foreseeable and unpredictable ways.

Frost's insights on porosity and permeability, we argue, directly challenge approaches to empire history and invite a rethinking of what empire was and is. While the biocultural invites important discussions about what constitutes violence, coercion, and exploitation, it also opens possibilities to foreground the unruly actions of human and more-than-human forces and entities that undermined imperial concerns and troubled pursuits for imperial control. Thus, we contend that Frost's theory of the human might be conceived as

a more-than-human human, an approach and reorientation to empire that emphasizes interconnection and contingency, alongside creative and adaptive processes, an approach that might better uncover the unintended effects of imperial rule. In the context of such a framework, historians of empire would no longer search for the familiar distinctions between human/animal, power/resistance, violence/liberation, but instead would more closely analyze their inseparability. This requires a repertoire of different concepts: intermingling, reciprocity, mutual constitution, interchange, and exchange. Though the methods and scales of the biocultural are inspired by the western life sciences and are operating at the level of the cellular, they resonate in interesting ways with the existing critiques made by Indigenous, Black, and postcolonial studies, as we discuss later in this introduction. The biocultural may offer exciting strategies for practicing a proactively anticolonial history from the inside out, a history that seeks to unmoor itself from the tight grip of Eurocentric thought by closely exploring a variety of material relations and forms.[10]

Why have historians of empire not been more attentive to a relational, interdependent, and mutually constitutive framework across the human/nonhuman divide as a means to apprehend the work of imperial conquest and settlement? Why have interspecies relations beyond animal forms not been more central in empire histories? The most obvious reason is that whether in the shape of personhood or nature, the sovereign-ness of the western liberal subject—its boundedness, its imperviousness—was considered critical to the wish fulfilment of empire as a project, and to imperial actors in many sites and domains. More often than not, historians have followed that imperial narrative plot, reproducing the rise-and-fall story which Victorians made popular and which, in turn, made the routine challenges and instabilities of imperial power on the ground invisible at best, and a pretext for plausible deniability about the trouble with empire at worst. Yet, evidence of the consequential role of biocultural processes was, and is, everywhere. Take the most orientalist of tropes, the inability of so many imperial officials and settlers to hold up under tropical climates—conditions which undid imperial power in some cases by killing off Europeans through diseases of various kinds. Such examples are usually dismissed as the vulnerability of Britons and of their claims to cultural superiority in unfamiliar and inhospitable environments. However, they could be reconceived as a kind of a biocultural challenge to assumptions of the bounded European body and the hubris of white supremacy. Such struggles could be attributed to the porousness of the *biocultural self*, revealing the human body's inseparability from its habitat and thus its availability for composition,

decomposition, and recomposition. Such a refiguration would open a critical set of questions and methodological challenges for empire history.

The human/more-than-human divide has been problematized by ontologies and epistemologies beyond Europe and the west. Ideas about the indistinguishability of nature/culture, whether in the multiverse of Indigenous lifeways, the multispecies life worlds of Islam, or pantheistic Hinduism, are modes of being and knowing that resonate with the biocultural. However, these accounts of the permeability of the human body and its indistinguishability from nonhuman forces have not often been legible under the terms of western epistemology. Such modes of being and knowing were deemed primitive and subject to violent eradication by means of a variety of imperial projects and forms. If most working British imperial historians today are not hostile to the concept of such alternative explanatory systems, they remain largely indifferent to, or untutored in, the more-than-human worldviews of communities inhabiting imperial landscapes prior to conquest. For example, few think of Indigenous cosmogenies, with their entanglements of human and nonhuman forms, as a necessary foundation for the project of historicizing how imperialism unfolded on the ground and across oceans and far-off territories. Despite a by-now well-established postcolonial denunciation of the racial logics in rationales for imperial settlement and conquest, the fiction of the west's species supremacy and of the putative biological self-sovereignty of the western subject have rarely been questioned in a sustained way. These fictions, which have been a foundational operating assumption of historians writing about the modern British imperial experience, we claim, demand critical attention.

Conversely, students of societies and polities central to the spaces of British imperialism—Africa, South and Southeast Asia, North America, Australasia, the Middle East—have been at pains to demonstrate the alternative cosmologies generated and sustained by colonized peoples who struggled for survivance and futurity both within the confines of empire and autonomous from it.[11] Indigenous, Black, and anti-racist feminist scholars and practitioners have been at the vanguard of work that challenges the species supremacy thinking characteristic of the historical phenomenon now known as the Anthropocene. They have linked the racial logics of imperial extraction and depredation to Anthropocenic ideology and practice. They have re-materialized dynamic traditions of relational and reciprocal practice among colonized and Indigenous thinkers and doers that is directly at odds with the sovereign-self model of both liberal empire and what Maurizio Meloni calls liberal biology.[12] In so doing,

these theorists and interdisciplinarians have left no doubt that the "natural world" and the domain of politics and culture compose and recompose each other in ways that historians of empire cannot afford to ignore. There is, then, no lack of research on, or argumentation about, the limits of a Eurocentric universalism when it comes to grasping the relationship between nature and culture in imperial contexts.[13] Nevertheless, there is scant recognition of the ways that imperial history relegates biocultural explanations to the margins in its own retellings. For whether the subject is imperial ecologies, colonial resistance, or Indigenous autonomy, relatively few modern British empire histories make the question of the interrelationship between human and more-than-human worlds (as more-than-*animal* worlds) the central premise of their accounts. What a biocultural framework allows us to see is how relentlessly the human species bias persists at the heart of imperial projects *and* their histories, and what difference it makes when we undo that presumption by unraveling the body/ habitat, nature/ culture, colonizer/ colonized dichotomies and create biocultural empire histories of the kind that follow. The biocultural offers openings for an anticolonial method of writing empire history.

Imperial Matters

The conceit of human supremacy—and with it, white western triumphalism—evidenced in histories of European imperialism (including conquest, slavery, and resettlement) has brought us to the time of climate catastrophe.[14] How might we analyze histories and futures of a planet in crisis? To tackle these political urgencies of our day, Frost's *Biocultural Creatures* turns, perhaps unexpectedly, to the life sciences and to the level of the cellular. "What we need in the place of the fantasy of human exceptionalism," she writes, "is a different figure of the human, one that does not succumb to the conceits of old but also does not conceptually dissolve humans as identifiable agents and thereby absolve them of the crises that mark the Anthropocene."[15] To take up this challenge, Frost proposes a theory of the human that focuses on the minute workings of the human body, conceiving it as inseparable from the environment, and the planet, while recognizing the internal and external pressures on the processes that enable life forms to live and die. As we read it, *Biocultural Creatures* presents a set of paradigm shifting questions that dramatically reorient formulations of what constitutes history, empire, and power, who are its agents, what struggle looks like, and how change happens and unfolds.

Historians, including those writing of empire, remain tightly bound to formulations of structure and agency, power and resistance, oppression and liberation. Despite the myriad critiques of these organizing frames, dualisms continue to shape fields of vision and modes of analysis in powerful ways. Thinking of human and habitat as inseparable and mutually formative demands a questioning and rethinking of our very basic assumptions and categories. What does it mean to approach gender, race, class, and sexuality—concepts that have been so central to empire history-writing—in terms of matter and energy, for instance? What sorts of conclusions might we draw about imperial power, causality, and responsibility when we approach these from entangled worlds of more-than-human matter? As Frost notes, these questions do not absolve humans, particularly European imperial powers, of responsibility for our current conditions of climate catastrophe. However, they may open different angles into how colonial and imperial power works, how it has and continues to be challenged, and the imagined futures of multispecies worlds.

Frost's refusal of the human/more-than-human divide situates movement at the center of her analysis. *Biocultural Creatures* directs attention to the biochemical microscales of matter, cells, and energy that bring the processual into sharper focus. In our reading, Frost's book offers critical insights for writing empire histories in sites where the body and environment are deeply intertwined in imperial, colonial, and racial "terrains of power."[16] These understandings encourage a revisiting and re-evaluation of how scholars have thought about colonialism and imperialism and how and why in our contemporary moment, imperial formations continue to endure in old and new ways.

From the path-breaking work of Edward Said onward, much of the scholarship in colonial and postcolonial studies has drawn on dualistic thinking. The binaries of self/other, colonizer/colonized, Orient/Occident, and West/East have been foundational to studying colonial and imperial power. *Biocultural Creatures*, by contrast, encourages other modes of thinking that are temporal, processual, and anti-dialectical. Approaching the body and habitat as reciprocally constitutive, for example, makes it difficult to work with the binaries and dualisms that have formed the basis of postcolonial and anticolonial thought. Frost's conceptualization of the biocultural puts these distinctions into question, inviting us to pay closer attention to what happens when the slash is not a dividing line but a space of continuous recirculation, reciprocity, and redistribution. Instead of mobilizing the kinds of inert frameworks through which encounters between liberal self-sovereign subjects are often imagined to occur, Frost encourages her readers to consider bodies and their habitats as always

already enmeshed and entangled, and to pay closer attention to the processes of transmission, exchange, and transformation these entanglements produce. Such reorientations may generate surprising conclusions. For example, Frost reflects on how her understanding of the permeability of a cell's membrane disrupted her own conceptual habits of thinking within the terms of deconstruction and psychoanalysis. The frantic and ongoing traffic in, out, and across cell membranes, she explains, prompted her to pull back on her long-standing assumptions about the foundational nature of repudiation and rejection in subject formation, and instead to trace the processes of intermingling and exchange.[17] The biocultural invites similar reflections in empire history, encouraging scholars to ask what colonial force looks like and how and where it operates, especially when the human body is conceived as a porous rather than a bounded entity, without an inside and an outside. This formulation, as we see it, makes distinctions between colonizer/colonized, self/other, free/unfree difficult to sustain.

The circulations of matter and energy that are made possible through the porosity of cell membranes in Frost's study push us to confront other fundamental assumptions in empire history-writing. *Biocultural Creatures* moves away from linearity and masterful purposiveness, asking readers to think harder about other movements and directions that creative cellular activities produce. What Frost calls "direction without intention" is perhaps one of the most radical arguments in her study of biological processes and poses a conceptual challenge that some readers might find difficult. Frost identifies the dynamic of "direction without intention" by tracing processes of metabolism and protein synthesis. At the center of her analysis is the insight that each element or moment in a process is the condition for the next, which is to say that each constrains and delimits but at the same time makes possible what can and cannot happen.[18] Serially and over time, a process evidences a direction, even as the direction taken was not pre-ordained or somehow willfully imposed. This account of how a process might have direction avoids thinking of contingency as stochastic eruptions. But in evading randomness, it does not thereby fall into the position that a direction is predetermined by what came before or fully deliberate on the part of some singular or collective subject.

If we accept Frost's claims that the movements between (human and more-than-human) bodies and environments are always unfolding and never complete, and if we bring those claims to bear on modern British empire histories, what kinds of timescales and directionalities must empire historians account for? Frost's theoretical work here raises important questions regarding the workings of power and the presumed chronology of history. At the very least,

her contentions offer pause on the presumed course, sequence, and temporal arc that inform history-writing. Frost's notion of direction without intention, as we read it, suggests that historical contingency, including the aleatory and unintended effects of colonial power, are key components in imperial processes.

These observations are significant for a critical rethinking of imperialism and colonialism, where species supremacy and human exceptionalism—embodied in the figure of the white, male, European—were long assumed to be the main driver of historical change. In worlds where bodies and environments interacted, collided, and reshaped one another, where exchange and interchange are acknowledged as key processes, intentions rarely matter. If we take these insights to colonial contexts, we might look for the ways in which European ambitions and agendas were routinely delayed, undermined, and even thwarted by the force of more-than-human worlds, including heat, water, weather systems, air quality, botanical matter, and microbes that affected human and more-than-human bodies, often in profound ways. Indigenous, enslaved, and colonized peoples often saw these elemental forces as companions and defenders against European encroachment and control.[19] In other words, the natural world was both an ally and protector against colonial and imperial power. Following Michel Foucault, scholars of empire have questioned the relationship between intention and effect. As many have noted, good intentions were often the basis of colonial and imperial processes that enabled unspeakable forms of violence, death, and destruction aimed at people, populations, and ecologies, and with which we are still grappling today.[20] To be sure, colonial officials and white settlers did take ambitions and intentions with them to the far-flung places under British imperial control. But we must remember that these colonial objectives were projected and imposed on multispecies ecologies that were always in motion. The interaction and interchange between human and more-than-human life forms produced their own unanticipated consequences. In these vibrant and energetic worlds, imperial outcomes were never fully predictable. They carried many consequences and effects that were unplanned and accidental.

In *Ariel's Ecology*, Monique Allewaert vividly demonstrates the importance of thinking with movement, porosity, and reciprocity in the "new world" plantation system. Writing in the fields of colonial and postcolonial studies, and not engaging with Frost or with the life sciences, she illuminates how colonial ecologies dramatically affected human and more-than-human bodies. For officials, plantations were unfamiliar spaces and sites of anxiety because of the effects they had on colonial agendas and on the health and longevity of Europeans. Allewaert argues that, Afro-Americans, by contrast, often found

support and refuge in flora, fauna, and water. The colonies were aspirations of European control, but they were also spaces where human entanglements with more-than-human worlds opened possibilities for disruption, dissent, and insurgency. To underscore this point, Allewaert focuses on processes of creolization, which she describes not only in terms of cultural processes but also as "a material and even ontological phenomenon" that we view as deeply resonant with the biocultural. For Allewaert, creolization highlights "how the substances and agencies that interacted in and thus composed a given place" and "the economic conditions particular to this place, produced bodies and forms of personhood in which diversification became primary." It was in the (un)intended conditions of creolization, Allewaert argues, that the "integrity of the human being" as an individual and autonomous subject was deeply threatened.[21]

Biological activities including the metabolic synthesis between human and habitat are the kinds of processes that Frost analyzes. In colonial contexts where everything was moving, where human actions were tempered by a multitude of influences, how is it possible to isolate intentionality? For some readers, direction without intention may engender surprise or alarm, implying there is no cause and therefore no European or western responsibility for imperialism and colonialism, past and ongoing. In a recent essay that engages with *Biocultural Creatures* directly, and which brings Frost more deeply into conversation with feminist, postcolonial, and critical theory, Rachel Lee takes up this challenge when she considers the implications of Frost's arguments in consideration of historical actions and actors.[22] In Lee's reading, direction without intention is useful to foreground what she terms "nonheroic agencies." Through her analysis of Chang Rae Lee's novel, *On Such a Full Sea*, Lee highlights how the novel negotiates between anthropocentric forms of historical agency while at the same time bringing into view "biocultural creatureliness" through an Asian girl who can adapt "to whatever situation and setting she encounters." Lee concludes by reiterating the importance of "environmental attunement" as an integral part of our bodies and collective selves, encouraging readers to think harder about the ways in which environments constrain, shape, and direct human actions and responses in a field of possibilities. In unfamiliar and hostile colonial contexts, the biocultural as "environmental attunement" presents an important methodological and conceptual approach.[23]

By characterizing bodies as forms of matter, *Biocultural Creatures* foregrounds questions of materiality. Frost begins her book with observations on the Anthropocene, particularly the need to theorize new forms of the human to account both for the ways in which humans have actively destroyed the

planet and for how climate catastrophe has impacted human bodies. Today, it is almost a truism to say that changes in the earth and the climate have had dramatic effects on plants, animals, and human species. As Meloni et al. argue, "oil, gas and coal are not only prime sources of the greenhouse gases that are such prominent signatures of the Anthropocene, they are also the source of a range of chemicals that affect living bodies in ways that we are only beginning to grasp."[24] Starting inside the body, Frost summons her readers to consider what kinds of analytic insights and approaches we might draw from micro-scale chemical and biological processes. By training our eye on the entanglements between bodies and habitats, she recognizes that humans have clearly exerted a destructive force on planetary environments. Importantly, however, Frost insists that these changes have always also affected human life processes, a point that is given far less attention. To capture these reciprocal effects of planetary destruction, Frost offers conceptual tools for thinking about different bodily registers where relations of power might be detected and analyzed—including the sensory experiences of sight, smell, sound, and taste, but also in processes of digestion, absorption, metabolism, respiration, and adaptation. This is a methodological directive that moves beyond the discursive, representational, and metaphorical to consider the felt, embodied, physiological, and affective. Using these conceptual tools in the context of empire histories, scholars might become better accustomed not only to the ways in which Europeans extracted and exploited humans and more-than-human worlds, as critical as these insights are, but also how hostile and unfamiliar environments threatened the fleshy bodies of colonial authorities and exposed the fallibility of imperial control.

Colonial and Racial Recomposition

Biocultural Creatures was published in 2016, at a moment when there was a growing academic interest in the materiality of race and an expanding scholarship on more-than-human worlds, some of which has directly challenged species supremacy and human exceptionalism.[25] As the field of new materialisms in which Frost herself was leading voice gained ground, it faced critiques from Indigenous scholars and scholars in the field of Indigenous studies for its failure to engage work with long histories and inheritances. Whether the claim is "surreptitious borrowing" or "an erasing and violent … 'discovery narrative,'" the colonial potentialities are real.[26] In this collection we are deeply

indebted to the writings of Indigenous, Black, and scholars of color who are the anticolonial antecedents to a "biocultural" framework for imperial history, in part because of the relationality they insist must be at the heart of anticolonial epistemologies. In *The Black Shoals*, to draw but one example, Tiffany Lethabo King centers "porosity, fungibility, and fugitivity as other ways to discuss human relations to the land and nonhuman life forms."[27] Importantly, we seek to bring these ideas to the heart of imperial history, which remains largely untouched by these orientations as methodological challenges and practices.

As we suggest above, what Frost's book brings to the biocultural is her starting point in the life sciences and in biochemical bodily processes. The theory of the human that Frost develops emerges at the level of the cellular, molecular, and energetic. It is from these microscales that she introduces counter-theoretical-concepts which prioritize materiality, relationality, animality, ecology, and vulnerability.[28] Frost's deep engagement with the life sciences, the arguments she advances on the porosity of the human body and its inseparability from habitat, the analytic limits of dualisms and binaries, and the creative possibilities of thinking with processes of composition, decomposition, and recomposition present a compelling critique of western metaphysics. As we note above, her insights and conclusions dovetail interestingly, and perhaps even surprisingly, with the work of Indigenous, Black, and postcolonial scholars.

As we have discussed thus far, *Biocultural Creatures* invites readers to think at different registers—the cellular, the chemical, and the matter-energy nexus—and to follow the movements and processes that render the body as open, permeable, and relational. By highlighting the interchange and interdependence between human and habitat, Frost troubles long-standing assumptions of the human as a bounded and autonomous subject. Instead, she argues that human autonomy conceived of as self-sovereignty is a modern formulation that has been foundational to the rise of European liberal thought and to the workings of European empires—a contention we develop more fully in this volume. The idea that the human (or rather some humans) had an inner core that was comprised of reason and rationality had its analog in the notion that the body, within the confines of the skin, was distinct from the outside world, a belief that embellished the idea of the modern liberal subject.[29] Together, these conceptualizations enabled assertions of human exceptionalism and species supremacy (as European), which in turn furnished the assumptions about human mastery over other humans and over nature that are at the root of colonial violence and ecological destruction. By starting with cellular activity, Frost offers

generative tools that might help to expose how the fiction of a bounded body was aligned with European anthropocentrism and with Eurocentric claims to species, cultural, and racial supremacy.

Critics have argued that conceptions of the human as properly self-contained and autonomous were central to European pursuits of colonial extraction, conquest, and dispossession. In their travels to the Americas, Europeans tried to force humans and more-than-human species into a linear story of historical development, which relied on a vertical hierarchy of civilization. As many scholars have argued, Indigenous, enslaved, and colonized peoples were seen as more proximate to the animal kingdom and the natural world than to the human species, a category and designation which took the European, white, and male as its standard.[30] A corollary of such arguments has been the claim that European subjects needed the primitivization of Indigenous, Black, and colonized peoples in order to explain their authority and justify their sovereignty over the natural world and its non-European inhabitants.[31] One critical response to this dynamic of the white European male and his putatively not-fully-human Others has been to argue for a more capacious and expansive figure of the human that includes Indigenous, Black, and colonized peoples. But as Zakiyyah Iman Jackson cautions, expanding the category of the human does little to address the dualisms and separations upon which it is established. The binaries of human/animal and humanization/dehumanization, she contends, are "insufficient to understand a biopolitical regime that develops technologies of humanization in order to refigure blackness as abject human animality and extends human recognition in an effort to demean blackness as 'the animal within the human' form."[32] For Jackson, anti-Blackness works specifically in these distinctions between human and nonhuman, humanity and inhumanity and therefore must be figured as part of the critique.

Black scholars and others writing critically of transatlantic slavery and the plantation system have examined the ways in which African and African-American writings have produced alternative visions of the human and of humanity. For Jackson, African diasporic literatures and visual cultures offer "a contrapuntal potential" that has long challenged the human/animal distinction by imagining humans as open and relational beings who are inseparable from and interdependent with animals and other more-than-human life forms.[33] She explains that in the course of disputing and undermining disparaging views of nonhuman and animal life, these arguments have foregrounded alternative conceptions of the human. Jackons's arguments about the openness of the human body that is so central to the thinking of Afro-Americans resonate

with Allewaert's suggestion that a presumption of openness made possible "an ethics of relationality" in which the human body was strengthened, weakened, transformed, and always affected by plantation ecologies.[34]

In a recent article, Tianna Bruno argues that transatlantic slavery impacted soil, water, and vegetation and also produced social, political, and economic legacies that continue to affect Black lives today.[35] In these recent formulations of slavery and anti-Blackness, the body and environment emerge as interdependent and even inseparable. To explore the material afterlives of slavery, others have directed attention to the violence of the slave ship, including its epistemological and environmental effects. For Daniel B. Domingues da Silva, the ships that transported enslaved peoples across the Atlantic dramatically transformed oceans and planetary ecologies through warming temperatures and rising sea levels.[36] In her acclaimed and widely cited book, *In the Wake*, Christina Sharpe centers the slave ship as a way of connecting past and present through the force of anti-Black violence as "the weather." Sharpe juxtaposes "the forced movements of the enslaved" with the "forced movements of the migrant and the refugee." The "regulation of Black people in North American streets and neighborhoods," she contends, is inseparable from "ongoing crossings of and drownings in the Mediterranean Sea … the brutal colonial reimagining of the slave ship and the ark; to the reappearances of the slave ship in everyday life in the form of the prison, the camp, and the school."[37] Her discussion of the ship as weather troubles the presumed linear chronologies of history. The slave ship opens key insights into the past and ongoing relationship between slavery, anti-Blackness, and climate catastrophe, while also gesturing to the porosity of bodies and environments.

For scholars writing of transatlantic slavery, Frost's idiom "energy in transition" may perhaps be most vivid and visible below the waterline, in oceanic underworlds.[38] Sharpe asks us to consider what happened to the African bodies that were thrown and jumped overboard from slave ships. Writing in another context and never invoking the biocultural, she signals the permeability of human and habitat and the relay of energy and matter. The Africans who were thrown overboard, Sharpe writes, and those that jumped "are alive in hydrogen, in oxygen; in carbon, in phosphorous, and iron; in sodium and chlorine. This is what we know about those Africans thrown, jumped, dumped overboard in Middle Passage; they are with us still, in the time of the wake, known as residence time."[39] African captives who were jettisoned from ships are still here, Sharpe insists, in chemical compositions that filter and circulate through water, in more-than-human bodies, and in ways that continue to nourish interspecies

relations and underwater life worlds. By referencing how people decompose into chemical elements that are then taken up and recomposed in an array of further elemental and life forms, Sharpe suggests that the wake is a material carrying forward of history that disrupts linear understandings of time. Her figure of the wake might be read as an instance of what Frost calls a "noncontemporaneity" that can be accounted for in a biocultural framework of analysis.[40]

Alexis Pauline Gumbs also underscores the interdependence of the ship, the sea, and the African body, albeit in different ways. The violence of the Middle Passage, she argues, biologically and culturally altered Black bodies. "Some say that the descendants of survivors of the middle passage all have our own version of pelvic and spinal tilt, of makeshift movement, of putting our bodies back together to somehow carry what we should never have had to carry," Gumbs writes.[41] Just as transatlantic slavery transformed ocean ecologies and planetary futures, the Middle Passage reshaped and redirected the materiality of Black bodies. Composition, decomposition, and recomposition are continuous, ongoing, and unfinished processes that reveal the interdependence and exchange between human bodies and more-than-human worlds over time and under conditions of colonial, imperial, and racial violence.

As we have argued thus far, *Biocultural Creatures* challenges the boundedness of the human subject—one of the many fantasies of western imperialist thinking and practice that have brought us to the urgencies of climate catastrophe today. Though it is rarely spoken aloud, it bears noting that while "human and non-human worlds can no longer be conceived as existing in separate realms," as Crist argues, the very notion of "the Anthropocene … appears to place humans on a pedestal as the only species in the history of the planet powerful enough to be deemed the primary Earth-shaping force."[42] Others have extended this insight into the Eurocentricism that undergirds the notion of the Anthropocene. In their ground-breaking essay, "On the Importance of a Date, or Decolonizing the Anthropocene," Heather Davis and Métis scholar Zoe Todd insist that the Anthropocene must be periodized in conquest and colonization of the Americas, and not in the mid-twentieth-century acceleration of industrialization. When placed in this longer historical arc, they explain, the Anthropocene appears not as a new event but as "the continuation of practices of dispossession and genocide, coupled with a literal transformation of the environment, that has been at work for the last five hundred years."[43] For Davis and Todd, the violence inflicted by European colonists and settlers against Indigenous peoples in the Americas was a genocide that dramatically affected local ecologies. Rethinking the date of planetary catastrophe, they urge, "would at least assert it as a critical project that

understands that the ecocidal logics that now govern our world are not inevitable or 'human nature', but are the result of a series of decisions that have their origins and reverberations in colonization."[44] In her ethnographic work, Todd—who writes as a Red River Métis scholar who brings fish futures and Indigenous sovereignty (back) into relation—reminds us of the energetic and agentic force of freshwater fish. In her assessment, much of the literature on the Anthropocene emphasizes the Anthropos and thus overlooks the liveliness and disruptive force of more-than-human worlds. Oceans, landscapes, soil, air, and animals have always troubled imperial aspirations of human mastery over nature. The porosity of human and habitat does not diminish the responsibility of European colonization for the legacies of today. However, it may present a vision of the human that redirects approaches to ecological futures, accounting for long histories of European racial and colonial violence while also leaving space to consider the lively force of a planet in crisis.

In reflecting on and building from Frost's arguments, our aim in this volume is to place her work, which originates in the life sciences, into conversation with the insights of Indigenous, Black, and scholars of color. As a critique of western metaphysics, *Biocultural Creatures* offers rich analytic tools to challenge the assumptions that underwrite claims about the superiority of European epistemes and to elucidate how the figure of the autonomous, self-sovereign liberal subject is flawed, limited, and unsustainable. As we note at the outset, Frost is a political theorist. Many of the Indigenous, Black, and scholars of color who have been problematizing the human, including those whose work we discuss above, are literary scholars, creative practitioners, and cultural theorists. To take their challenges seriously for writing empire histories requires a rethinking and reconfiguration of historical methods and modes of analysis, a task to which we now turn.

The Biocultural as a Challenge to British Imperial Histories

As we have suggested thus far, Indigenous and Black scholars have elaborated the alternative cosmologies generated and sustained by those communities who struggled for survivance and futurity. For example, there is no dearth of scholarship on the incommensurabilities of Indigenous life with western social and political hegemony. What Frost's work allows us to see, with particular vividness, is that whether the topic is imperial ecologies, native resistance, or Indigenous indifference, few if any empire histories make the question of the

interrelationship between human and more-than-human worlds the starting point or central premise of their accounts. To be sure, many recognize the particular form of relationship between colonized humans and colonizing ones. Through the writing and sharing of Indigenous cosmologies, scholars acknowledge the importance of the relationship between first peoples and the natural world. Similarly, an awareness of the environment as a factor in colonization is increasingly making its way into British imperial history narratives.[45] But the reciprocal work of "natural," "cultural," and "political" worlds—the processes through which they compose and recompose each other—is not on the radar of the vast majority of historians of the British empire. What a biocultural framework allows us to do is to see how relentlessly the human species bias persists at the heart of imperial projects and historical accounts of them, and to begin to grasp the interspecies character of imperial processes.[46] As we note above, while Indigenous, Black, and postcolonial scholars working in a variety of other disciplinary and interdisciplinary terrains are alive to these matters, British imperial history as a scholarly field has not begun to grapple with the possibility, let alone with the implications of the genuinely interspecies framework that the biocultural calls into being.

Key to this methodological and epistemological conundrum is the way that the encounter model remains at the conceptual center of so much British imperial history-writing, shaping our understanding of how empire functioned at all scales, from official policymaking to life on the ground.[47] That model relies on, and continually reproduces, a narrative which stages as the paradigmatic form of imperial experience the meeting up of the self-contained liberal subject with empire *in situ*. Whether in war, in trade, or at the mission station, the assumption has long been that—in a context of conflict or exchange—colonizers operated as sovereign entities, arriving fully formed as imperial subjects to sites of encounter upon which they acted as bearers of imperial knowledge and power. Little attention is given to how the people and ecologies of far-flung places influenced the bodies, minds, and practices of colonial authorities. What is remarkable is that even anticolonial histories often depend on an encounter model. They describe colonial confrontations in terms of a dialectic, perhaps, but when anticolonial history focuses on nationalist responses to imperial power, they often portray them as a stand-off across unbridgeable chasms.[48] Even leaving aside the question of the more-than-human world and its colonial histories, the liberal encounter model of imperial history has predominated, where "liberal" signifies self-contained subjects on either side of a dichotomous divide.

To be sure, imperial historians in the last two decades have sought to challenge a variety of binaries, upending the metropole/colony distinction by offering multisited and transnational narratives in order to capture the multidirectional vectors through which imperial power and resistance to it operated. We no longer think of empire as a phenomenon "out there," unconnected to how the nation at home was made.[49] The so-called "Island Story" may persist as a Brexit phantasm, but there is ample historical evidence to the contrary. It is clear, too, that some practitioners of imperial history have moved purposefully on from an understanding of empire as one-way traffic: the colonizer/ colonized binary and the imposition model of empire have both come under pressure from scholars who seek to rematerialize the agency of colonized subjects and their ways of knowing in some of the most traditional theaters of empire, the spaces of the civilizing mission prime among them.[50] Indeed, the very concept of imperial culture implies an amalgamation, a hybrid, a combination of the metropole and its colonial influences. But even so, in practice does the idea of hybridity in play here suggest ongoing processes of reciprocity and redistribution and the veritable impossibility, which Frost's biocultural paradigm insists upon, of the self-sovereignty of the liberal western subject, whether individual or collective?

The seeds of such a reconceptualization are certainly there. But what a biocultural methodology in British imperial history requires is that we recognize that liberalism is a *cosmology* rather than simply a political framework. It is a racial cosmology of encounter, with the binary of self and other at its epistemological heart. The self that is in play is most often understood as a form of bounded, sovereign, inalienable property. Needless to say, that sovereign-self-as-property paradigm redounds to histories of Indigenous conquest, slavery, indenture, and imperial territorial aggrandizement in ways that secure whiteness as the predicate of species supremacy. Both implicitly and explicitly, it attaches sovereignty to the material fiction of whiteness as the exclusive property of who counts in the domain of the human-as-species. As long as this kind of racialized liberal presumption—which conflates whiteness with "the human" and hence with human species supremacy—functions as the default basis for accounts of how empire worked and why it mattered, we have not exceeded the methodological liberalism of imperial thinking and knowing.[51] Nor have we sufficiently interrogated the "white man's world" effects of today's imperial history, whatever critics and revanchists may say about the overtaking of the field by "woke" scholars.[52] For the imperial subject is never actually a sovereign subject but instead is always already a biocultural one—composed and recomposed in and by the imperial soil and its substrates, processes that render

its whiteness and its claims to "natural" dominance precarious and vulnerable to all kinds of insurgent actors, the nonhuman world included. Given the role of British imperialism in fortifying militant global whiteness movements, to reckon with the evidence of empire's interdependent and interspecies dispositions is one way of rightsizing the arrogation of geopolitical dominion as well as species supremacy to white western civilization *per se*.

It is worth underscoring that, as we have suggested above, it is Indigenous, Black, Brown, literary, feminist, and queer scholars who have been most attentive in recent years to the need to challenge the reproduction of imperial dualisms and logics in humanities scholarship on the Anthropocene, and to press beyond the nature/culture model at the heart of western epistemologies. We are thinking here of Monique Allewaert, Alexander Weheliye, Robin Wall Kimmerer, Zoe Todd, and Alexis Pauline Gumbs, to name just a few intellectual and political fellow-travelers.[53] Readers of their work will recognize in the concept of biocultural empires a call for models and methods that rematerialize interdependence, circulation, reciprocity, and redistribution precisely as *historical processes*. In the context of anglophone empire, such a shift in focus requires that we apprehend colonial encounter and power as scenes of continuous doing and undoing, making and remaking, not merely at the site of the embodied person (a formulation that is always already presumptuous and predetermined) but rather at the site of the organism—whether human, animal, plant, or extending our sense of living processes, to the ocean or the biosphere.

Experimenting with Frost's work across the range of imperial archives and histories in *Biocultural Empires* allows us to investigate the limits of imperial sovereignty and the supposed exceptionalism of the liberal human subject, and to articulate how these two fantasies worked together in the modern disaggregation of natural and geopolitical histories. In other words, by grounding our labors in a critical appreciation of *Biocultural Creatures*, we can point to horizons of anticolonial empire history that neither traditions of ecological studies nor more recent interventions in animal studies have been able to do, even with a specific commitment to decolonizing British imperial narratives. Our hope is that readers of Kimmerer, Gumbs, and others will recognize in this volume the urgency of recasting British imperial history. If British imperial history can be recast in the way that we hope, it might finally attend to those bodies of scholarship that challenge the sovereignty of the liberal subject precisely because that self-sovereignty has been a foundation both for the persistent dehumanization of Black, Brown and Indigenous peoples and for the persistence of racist and otherwise exclusionary violences in the imperial and post-imperial world.[54]

If our collection is implicitly and explicitly indebted to the work of Indigenous, Black, and scholars of color, we also hope to contribute to the anticolonial project at the heart of much of that work. Narratives that center biocultural processes and emphasize methods of proactive reading for histories of recomposition and recombination at both the material and metaphorical level can be useful to contemporary anticolonial theory, which often references empire and imperial histories without perhaps a full understanding of the methodological inheritances of those histories. The methodological retooling we seek does not aim to redeem imperial history, or any history for that matter. But in our view "empire" must be more than a symbolic resource or a bundle of citationary allusions for anticolonial practitioners who aspire to thwart everything from the reinscription of imperial extraction in green movements to the neoliberalizing effects of institutional DEI projects across higher education, technology, and racial capitalism.[55] Biocultural approaches to British empire history work to surface alternative accounts of how imperial ambitions can be seen to have been interrupted and disrupted by more-than-human worlds. Most often, biocultural histories are submerged and recessive in imperial histories *and* in the archives of empire, official and unofficial. By making these histories visible, we can demonstrate to readers across the disciplinary spectrum that specifying the biocultural character of empire's history is essential to strategic anticolonial thinking today.

Compositions: Organization of the Book

This project started with two virtual workshops in the winter of 2021 which convened a range of scholars who work in the British or anglophone empire field with Frost's book as the common text. We read, questioned, developed, and shared vocabularies around the biocultural and worked through how the methods that Frost models might find their way into our respective work. The chapters that follow take up the challenges of a biocultural framework in different ways, contexts, and time periods, mostly, though not exclusively, with a focus on the British empire. While all the contributors owe a debt to Frost's book and to the vocabularies and conceptual frameworks we have developed over the course of our collective engagement with it, the extent to which each author is in conversation with it depends on the specific archives and narrative approaches they take. In keeping with Frost's own orientation, each chapter extends the reach of the biocultural as a method in the context of wide-ranging empire histories.

The opening chapters by Jamie Jones and Anna Feuerstein draw readers to the critical insights of Black feminists. In different ways, Jones and Feuerstein read this scholarship alongside Frost's book, pointing to intellectual traditions that have come before and asked similar questions. Feuerstein reminds us that Black scholars have long written about the biocentricity of race and the human.[56] Drawing from the work of Sylvia Wynter, Alex Weheliye, and Katherine McKittrick, she argues that Black scholars offer a longer genealogy of thought, pressing across the presumed human/animal/environment divides, and in ways that challenge the colonial mindset through which the human comes to signify white male Europeanness. To be clear, these questions do not figure directly or explicitly in Frost's project. What Jones and Feuerstein signal is how Frost's arguments, drawn from the life sciences, might be placed into productive dialogue with the work of Black feminists who have developed their critiques of European western thought largely through the arts and humanities.

Reading across different genres, including poetry, academic writing, and performance and placing these works into conversation with Frost's insights on processes of composition and recomposition, Jones' chapter underscores the analytic and political importance of placing the biocultural alongside the work of Black feminist scholarship to identify and analyze the spaces where anti-Blackness continues to endure. As Jones puts it, anti-Blackness is registered by Black bodies, cells, and molecular structures as well as in Black minds, emotions, and communities.[57] Her observations highlight the racial porosity of bodies and habitats. Whereas Frost begins inside the human body, Jones starts with the body of the whale. This is not a narrative strategy but an important analytical one. As Jones argues, the whale is a biocultural creature par excellence: "Whales are creatures that—on the basis of their size, charisma, and shared history with some human communities—help make visible better than any other creature (even the human!) the concepts central to understanding biocultural creatures: porosity, permeability, and dynamism." This shift from human to animal, Jones explains, expands and deepens the biocultural as a theoretical intervention that makes anti-Blackness visible. This is also a note on form and method. Jones returns to the metaphor/materiality divide that has been so persistent in animal and oceanic studies. Black, feminist, and queer thought, she argues, puts pressure on the rhetorical work of metaphors and creates new forms of metaphorical thinking that cannot easily be separated from the relays of matter and energy.[58]

Feuerstein's chapter traces a history of anti-Blackness made visible through the porosity and mutual shaping of bodies and environments. Focused on slavery, meat, salt and the plantation, she underscores processes of metabolism and energy transfer to highlight how the violent extractive practices initiated by European colonists created substances, including sugar, that connected and transformed bodies and ecologies. What is particularly powerful in Feuerstein's contribution is her close readings of Richard Ligon's 1657 travel narrative *A True and Exact History of the Island of Barbados* and Mary Prince's 1831 slave narrative *The History of Mary Prince*. Her analysis of these texts clearly shows the integral role that more-than-human forces played in colonial economies of race. The very different books from which she draws, one by a white English planter and the other by an enslaved woman who moved to London with her enslavers and became legally free, illuminate one of her key arguments: white supremacy was dependent on the energetic transitions and transformations between human and more-than-human worlds, a process that Feuerstein claims revealed the inhumanity of whiteness. When these texts are read together, Feuerstein suggests that they unsettle a biological concept of race and the human, and instead point to a "biocentric" figuration of race that gained meaning through human and more-than-human worlds.[59]

Burton's chapter draws readers into a rich archive of a "Victorian parliament of animals." What this archive illuminates, she argues, is not only the interspecies relations upon which British imperial power worked but the re/constitution of the human and nonhuman as *political form*. Burton explores the methodological arguments that Jones makes about metaphor. Starting with the devilfish, Burton analyzes the imperial power of animal metaphors and the inseparability of humans and animals as biocultural and political phenomena. Despite these rich illustrations, Burton notes that British imperial history has centered almost entirely on the human as *the* agent of history. Empire historians have not fully questioned how more-than-human worlds informed and shaped the political, cultural, and economic relations through which empire was commonly visualized. The captivating image archive she composes reveals a dynamic world in which human, animal, and habitat were characterized as enmeshed and entangled. In Burton's reading, this multispecies archive offers key conceptual and methodological directives to which we must be attentive. The "popular cartoons which normalized the 'humanimal' form work to undermine anthropocentric accounts of empire and compel us to think anew about our preoccupation with the exceptionally human subject of imperial

history." Through the Victorian parliament of animals, Burton reveals how "the geopolitical and biocultural were deeply entangled."[60]

Utathya Chattopadhyaya's chapter takes us into the worlds of botanical matter, both in terms of its influence on human bodies and on imperial politics. He argues that cannabis use in British India was a form of intoxication that left historical imprints on Indian bodies over time. Though focused on a very different time period and colonial context, his chapter resonates in interesting ways with Feuerstein's contribution. Both emphasize the effects of consumption and ingestion on the body's metabolic processes. Both connect these to larger colonial economies of race and, for Chattopadhyaya, caste. As Chattopadhyaya's chapter suggests, studying cannabis use makes visible energy transitions between different species, most notably, plants and humans. Moreover, it shows us how these interactions and exchanges across human and more-than-human life shaped legal regimes of colonial control. Although British officials insisted that cannabis use affected "Indian bodies *differently*," Chattopadhyaya insists that the effects of intoxication could not be determined in advance, and its disruptive effects often exceeded British control.[61] Cannabis may have drawn different species together in ways that illustrate the porosity of human and environment, but these compositions and recompositions were unpredictable and inchoate, rather than deterministic or anticipated.

In "'The Royal Sacred Hairy Family of Burmah: Human Difference and Biocultural Empire in the Nineteenth Century,'" Jonathan Saha advances the provocative claim that over the course of the nineteenth century there was a strange convergence between the temporality of a particular chromosome and the fate of a kingdom in the grip of British colonial violence. Shwe-Maung, an entertainer in the court of King Bagyidaw, was the first member of his family to have hair that grew over the entirety of his face and body, at least so far as extant historical evidence shows. His daughter, Ma Phon, also found herself under the examination of the curious eyes of British men; she, along with her son, Maung Po Set, and his daughter (Ma Phon's granddaughter), Ma Meh, had to make a new life for herself during an extended period that saw the dissolution of the Burmese monarchy through successive wars, and the incorporation of Burma into Britain's Indian Empire. Through the machinations of imperial military officers and scheming impresarios, the elderly Ma Phon and her family toured European cities before arriving in the United States through a lucrative contract with the notorious showman P. T. Barnum. She died in Washington in 1888 whilst a protracted pacification campaign was being waged by the newly installed colonial regime in Burma. Saha explores drawings and photographs

of them which circulated across centers of learning in European imperial metropoles, and contributed to scientific speculations over what their hair meant. Images of them, albeit not reproduced in the chapter, were folded into debates over evolution and human abnormality that rendered their hair a cypher for atavism. This colonial reading of their bodily difference remains apparent in contemporary medical literature on the condition with which they have been retrospectively diagnosed, congenital hypertrichosis lanuginosa. Reframing this case study of human/nonhuman "celebrity" through the lens of Frost's *Biocultural Creatures*, Saha materializes evidence of the indivisibly biocultural processes at work in critical moments of Burmese history, and argues that we reconsider how we narrate the putatively human story of imperial racism, takeover, and possession.

White settler contexts, as sites of Indigenous land dispossession, resource extraction, and ongoing violence, offer a range of possibilities for thinking with and through the biocultural. In "History in the Water(s): Water and Empire in North America's Wet Center," Adele Perry argues that it is impossible to overlook the agency of water as a driver of histories of the wet interior of northern North America in the twentieth century. Ever since the Annishinaabeg, Inninewak, and Métis lands were claimed by Canada in the nineteenth century, the settler state has worked to drain some lands, move water by aqueduct from one place to another, harness water's power for electricity, and control water through a range of engineering interventions. Perry argues that in this particular place and time, settler colonialism (and more precisely, prairie colonialism) has been in no small part a politics of water, and a highly contested one. Perry's analysis draws on a rich scholarship to argue that the animacy and spiritedness of water in Annishinaabeg ontology have long challenged the human exceptionalism that Frost problematizes in *Biocultural Creatures.* Though not directly analogous, Perry uses ditches, aqueducts, and dams the way Frost uses carbon, membranes, and proteins: to center our attention on the dense transfer points between colonial power and "nibi" and to make visible the role of those transfer points in the history of Indigenous precarity and vulnerability in this region. Perry's discussion asks how we might reimagine histories of empire in ways that make room for the stories told by more-than-human forces, including water, and how we might do so in ways that do not reproduce the colonial logics that have worked to dispossess Indigenous people from their lands, waters, and resources.

Also engaged with water, Tony Ballantyne's "Strangers, Difference, and the Darkness of Empire: The HMB *Endeavour* in New Zealand" draws on Frost's biocultural paradigm to open up new perspectives on the oceanic encounters

that were central to the creation of the world-spanning maritime empires which made settler colonialism possible. His focus is the HMB *Endeavour*, the British naval vessel captained by Lt James Cook, that traversed Te Moananui-a-Kiwa, the Pacific Ocean, between 1768 and 1771. Ballantyne reads the ship and its journey as a kind of biocultural assemblage, consisting of a shifting and interactive set of materials, technologies, skills, knowledges, and biocultural creatures of various kinds. Following Frost, he focuses on porosity. His chapter begins with an exploration of the role of the physical fabric of the ship and its often labile cultural boundaries in cross-cultural engagements that were characterized by both intended exchanges (through diplomacy, trade, and cross-cultural sexual relations) and exchanges that were not perceived or understood by the participants (including the transfer of biota and the transmission of bacteria, viruses, fungi, and parasites). He then turns to the cross-cultural ontological dimensions of these encounters. Focused on Indigenous people of Te Ika a Māui and Te Waipounamu (New Zealand), Ballantyne maps two divergent systems of understanding the nature of humanity and the natural world. In particular, he highlights the analytical insights that are opened by virtue of thinking with the notion of "biocultural creatures." Ballantyne is keen to emphasize the entanglements of whakapapa (genealogy), hau (breath, vitality), and mauri (life principle). Ultimately, the *Endeavour* voyage drew the Pacific into the larger biocultural systems of the British empire, an asymmetrical and incorporationist system of circulation and alienation. Ballantyne reflects on both the enduring transformations enacted by these entanglements and recent Indigenous critiques of the *Endeavour* as a "death ship."

The final chapter by Debjani Bhattacharyya investigates the "muddy logics of property" which originated in East India Company state Bengal and continues to have reverberations for the politics of the Anthropocene in the shadow of empire today. Beginning with the claims of a local landlord about the amphibious character of his holdings, Bhattacharyya traces the political-economic contexts and the longer material histories of the species entanglements and the more-than-human challenges to empire as a way to reframe our current climate crisis. Her chapter documents the shape-shifting of river formations in an attempt to make visible the landscapes-waterscapes that challenged colonial attempts to map and control it. Bhattacharya's study tracks how continuously determined the colonial state was to create boundaries between land and water and how they sought to govern the underlying porosity of the territory which was composing and recomposing under their feet. Her chapter explores "how empire continuously worked to maintain boundaries in the mud." Here, in an ecological messy space,

Raj officials used maps to force ponds, streams, spill-channels, and tidal flats into "land" which they could claim as territorial possession and from which they could extract revenue. The porosity and recomposition of land-water to which Bhattacharyya draws our attention are precisely what Frost's work argues for as the condition of life.

Toward an Anticolonial Method

Our proposition in this collection is that we can no longer write accounts of the human and human histories without understanding how imperial histories and ideologies have shaped and continue to shape relations between human and more-than-human worlds and the ways we apprehend and describe those relations as well. We need to come to grips with the fact that legacies of empire include a set of political, cultural, and economic relations as well as a method of knowledge production. These inheritances continue to obscure the forms of relationality and interdependence that are in play in biocultural processes and in ways of life. To address these problems requires an acknowledgment and also a strategy that moves beyond debates about the coloniality of the Anthropocene. Scholars of empire history and beyond must do more than use imperialism or white settler colonialism as gestural points of reference.

In the spirit of colleagues seeking to "revive anticolonialism as theory that allows us to live in the catastrophic present and to imagine forms of dissent against neocolonial formations and mutating forms of empire," we posit the biocultural as methodology and as form of life.[62] Conceived of in this way and repurposed for strategic use in British empire history, the biocultural invites us to grapple with the ways that our efforts to think about, and even to decolonize histories, are themselves shaped by imperialism and colonialism, materially and methodologically. This volume calls attention to the extent to which empire logics—of extraction, encounter, incorporation, and of telos—are not only historical problems but ones that can become embedded in our own practices of un/doing. We are especially invested in reorienting empire history-writing in this direction. But our call for seeing the anticolonial as the biocultural and vice versa goes well beyond that domain. Hence, we are committed to linking anticolonial practice with Frost's conceptions of the biocultural so that they can be mobilized as a set of reciprocal relations rooted in the processes of composition, decomposition, and recomposition that troubled and often escaped imperial and colonial control.

Notes

1 Jonathan Saha, *Colonizing Animals: Interspecies Empire in Myanmar* (Cambridge: Cambridge University Press, 2021).
2 Amitav Ghosh, *Smoke and Ashes: Opium's Hidden Histories* (New York: Farrar, Strauss and Giroux, 2023).
3 Jane Bennett, *Vibrant Matter: A Political Economy of Things* (Durham: Duke University Press, 2010).
4 James Hevia, *Animal Labor and Colonial Warfare* (Chicago: University of Chicago Press, 2018).
5 Sandra Swart, *Riding High: Horses, Humans and History in South Africa* (Johannesburg: Wits University Press, 2010), 2.
6 Sara Cockram and Andrew Wells, *Interspecies Interactions: Animals and Humans between the Middle Ages and Modernity* (London and New York: Routledge, 2018). J. R. McNeill's *Mosquito Empires, Ecology and War in the Greater Caribbean* 1620–1914 (Cambridge: Cambridge University Press, 2012) is a notably rare model.
7 Which evidence of such stabilizing it was our intention to materialize in Burton and Mawani, eds., *Animalia: An Anti-Imperial Bestiary for Our Times* (Durham: Duke University Press, 2020).
8 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Durham: Duke University Press, 2016).
9 On webs, see Tony Ballantyne, *Webs of Empire: Locating New Zealand's Colonial Past* (Vancouver: University of British Columbia Press, 2015). On the polycentricity of imperial power, see Renisa Mawani, *Across Oceans of Law: The Komagata Maru and Jurisdiction in the Time of Empire* (Durham: Duke, 2018).
10 See Killian Quigley, *Reading Underwater Wreckage: An Encrusting Ocean* (London: Bloomsbury, 2022).
11 For an example of the link between Indigenous intellectual traditions, ecological thinking, and "collective continuance," see Kyle Powys Whyte, "Settler Colonialism, Ecology and Environmental Justice." *Environment and Society* 9 (2018): 125–44.
12 Maurizio Meloni, *Impressionable Biologies: From the Archaeology of Plasticity to the Sociology of Epigenetics* (New York and London: Routledge, 2019).
13 Some key texts include Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* (Minneapolis: Milkweed, 2015); Martha Few and Zeb Totorici, eds., *Centering Animals in Latin American History* (Durham: Duke University Press, 2013); Kyle Whyte, "Settler Colonialism, Ecology and Environmental Injustice." *Environment and Society* 9, no. 1 (2018): 125–44; Neil Ahuja, "Postcolonial Critique in a Multispecies World." *PMLA* 124, no. 2 (2009): 556–63.

14 Elizabeth M. DeLoughrey, *Allegories of the Anthropocene* (Durham: Duke University Press, 2019); Renisa Mawani, "Law of the Sea: Oceans, Ships, and the Anthropocene," in Peter Burdon and James Martel (eds.), *The Routledge Handbook of Law and the Anthropocene* (New York and London: Routledge), 115–29. Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2019).

15 Frost, *Biocultural Creatures*, 13.

16 See, for example, Donald S. Moore, Jake Kosek, and Anand Pandian, eds., *Race, Nature, and the Politics of Difference* (Durham: Duke University Press, 2003).

17 Frost, *Biocultural Creatures*, 54.

18 Ibid., for "direction without intention."

19 See Frantz Fanon, *The Wretched of the Earth* (New York: Grove Press, 2005); Monique Allewaert, *Ariel's Ecology: Plantations, Personhood, and Colonialism in the American Tropics* (Minneapolis: Minnesota, 2013).

20 For a critique of good intentions see Aime Cesaire, "Culture and Colonization." *Social Text*, 103, 28, no. 2 (Summer 2010): 133.

21 Allewaert, *Ariel's Ecology*, 6.

22 Rachel Lee, "Are Biocultural Creatures Posthistorical Agents?" *Theory and Event* 21, no. 2 (2018): 518–28.

23 Lee, "Are Biocultural Creatures Posthistorical Agents?", 521, 525, 526.

24 Meloni, et al., "Bodies of the Anthropocene: On the Interactive Plasticity of Earth Systems and Biological Organisms." *The Anthropocene Review* 9, no. 3 (2022): 8.

25 See for example Katherine McKittrick, ed., *Sylvia Wynter: On Being Human as Praxis* (Durham: Duke University Press, 2015); Christina Sharpe, *In the Wake: On Blackness and Being* (Durham: Duke University Press, 2016); Alexander Weheliye, *Habeas Viscus*: *Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Durham: Duke University Press, 2014).

26 See Jennifer Clary-Lemon, "Gifts, Ancestors and Relations: Notes towards an Indigenous New Materialisms." *Enculturation: A Journal of Rhetoric, Writing and Culture* (November 12, 2019) https://enculturation.net/gifts_ancestors_and_relations; Brendan Hokowhitu, "The Emperor's 'New' Materialisms," in *The Routledge Handbook of Critical Indigenous Studies* (New York and London: Routledge, 2020). See also Juanita Sundberg, "Decolonizing Posthumanist Geographies." *Cultural Geographies* 21, no. 1 (January 2014): 33–47.

27 Tiffany Lethabo King, *The Black Shoals: Offshore Formations of Black and Native Studies* (Durham: Duke University Press, 2019), 33.

28 Frost, *Biocultural Creatures*, 3.

29 Maurizio Meloni, "A Postgenomic Body: Histories, Genealogy, Politcis." *Body and Society* 24, no. 3 (2018): 15.

30 Fanon's *Wretched of the Earth* is a key text in this regard.

31 See for example the collection by Andrew Baldwin, Laura Cameron, and Audrey Kobayashi, eds., *Rethinking the Great White North: Race, Nature, and the Historical Geographies of Whiteness in Canada* (Vancouver: University of British Columbia Press, 2011).
32 Zakiyyah Iman Jackson, *Becoming Human: Matter and Meaning in an Anti-Black World* (New York: New York University Press, 2020), 20.
33 Jackson, *Becoming Human*, 4.
34 Ibid., 19.
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36 Daniel B. Domingues da Silva, "Underwater: Global Warming to Flood the Former Ports of the Transatlantic Slave Trade," *History News Network,* https://historynewsnetwork.org/article/176284.
37 Sharpe, *In the Wake,* 21.
38 Frost, *Biocultural Creatures*, 122.
39 Sharpe, *In the Wake*, 19.
40 Frost, *Biocultural Creatures*, 123.
41 Alexis Pauline Gumbs, *Undrowned: Black Feminist Lessons from Marine Mammals* (Chico: AK Press, 2020), 46.
42 Quoted in Andrew Whitehouse, "Listening to Birds in the Anthropocene: The Anxious Semiotics of Sound in a Human-Dominated World." *Environmental Humanities* 6 (2015): 54.
43 Heather Davis and Zoe Todd, "On the Importance of a Date, or, Decolonizing the Anthropocene." *ACME: An International Journal for Critical Geographies* 16, no. 4 (2017): 761.
44 Davis and Todd, "On the Importance of a Date," 763.
45 See for example Rohan Deb Roy, *Malarial Subjects: Empire, Medicine and Nonhumans in British India, 1820–1909* (Cambridge: Cambridge University Press, 2017) and Hevia, *Animal Labor and Colonial Warfare*. Here we distinguish between studies of specific nonhuman case studies like Sandra Swart's excellent *Riding High—Horses, Humans and History in South Africa* or Neel Ahuja's equally accomplished *Bioinsecurities: Disease Interventions, Empire, and the Government of Species* (Durham: Duke, 2016) more "grand empire narrative" approaches, where ecology and environment do not tend as of yet to play the proportional role they merit.
46 Burton and Mawani, *Animalia*; Saha, *Colonizing Animals*.
47 For a suggestive analysis of how encounter need not always mean connection, see Christopher Taylor, "Let Them Sink into the Sea: Free-Trade Empire and a hermeunetics of Disconnection." *Criticism* 61, no. 4 (2019): 551–67.
48 And despite the fact that a feature of subaltern engagement is indifference as well as antagonism, the dialectic continues to dominate anticolonial theoretical frameworks. See Naisargi N. Dave, *Indifference: On The Praxis of Interspecies Being* (Durham: Duke University Press, 2023).

49 See Catherine Hall, *Civilising Subjects: Metropole and Colony in the English Imagination, 1830–1867* (Chicago: University of Chicago Press, 2002).

50 See T. J. Tallie, *Queering Colonial Natal: Indigeneity and the Violence of Belonging in Southern Africa* (Minneapolis: Minnesota, 2019) and Tony Ballantyne, *Entanglements of Empire: Missionaries, Maori, and the Question of the Body* (Durham: Duke University Press, 2014).

51 For a fierce critique of this methodological imperialism in the context of white settler animal studies, see Billy-Ray Belcourt, "Animal Bodies, Colonial Subjects: (Re)Locating Animality in Decolonial Thought." *Societies* 5 (2015): 1–11.

52 Bill Schwarz, *The White Man's World* (Oxford: Oxford University Press, 2012); Nigel Biggar, *Colonialism: A Moral Reckoning* (Glasgow: William Collins, 2023).

53 Allewaert, *Ariel's Ecology*; Weheliye, *Habeas Viscus*; Kimmerer, *Braiding Sweetgrass*; Zoe Todd, "Fish, Kin, and Hope: Tending to Water Violations in amiskwaciwâskahikan and Treaty Six Territory." *Afterall: A Journal of Art, Context, and Inquiry* 43, no. 1 (2017): 103–7; and Gumbs, *Undrowned*.

54 Saha, *Colonial Animals*; Jackson, *Becoming Human.*

55 Yusoff, *A Billion Black Anthropocenes or None*.

56 See below, Anna Feuerstein, "Biocultural Histories of the Black Anthropocene."

57 See below, Jamie L. Jones, "Very Like a Whale."

58 Ibid.

59 See below, Anna Feuerstein, "Biocultural Histories of the Black Anthropocene."

60 See below, Antoinette Burton, "The Victorian Parliament of Animals."

61 See below, Utathya Chattopadhyaya, "Ganja and the Godhead."

62 Yogita Goyal, "Anticolonialism as Theory." *Representations* 162 (2023): 4.

1

Very Like a Whale: Animal Metaphors and the Biocultural Imagination

Jamie L. Jones

The recent nonfiction book by Rebecca Giggs, *Fathoms: The World in the Whale*, opens on a dead sperm whale whose stomach, when cut open, was revealed to contain an entire greenhouse with tarps, pipes, ropes, flowerpots, spray canister, and plastic burlap—along with a mattress, coat hanger, dishwasher pot, and ice cream tub.[1] The dead whale washed ashore in southern Spain in 2012, and the scientists who analyzed its corpse traced the greenhouse materials to the growing regions in Almería in southern Spain. The massive greenhouses of Almería provide between 2.5 and 3.5 million tons of produce for European markets. The greenhouses are so vast that their white plastic roofs reflect sunlight and actually *cool* the region of Almería by 0.3°F per year, even as the temperature of neighboring regions rises with global warming.[2] The greenhouses produce tons of plastic waste, much of which blows into the sea. One of those plastic greenhouses killed this unfortunate sperm whale by bursting one of its stomachs.

After describing this whale's death, Giggs continues her narrative by surveying the other ways in which whales absorb pollution. Polluted whale bodies become a way for Giggs to understand and convey the catastrophes of ocean pollution and climate change: "Whales assayed, revealed the extent."[3] As her narrative continues, her attention scales down from the greenhouse in the stomach to the cells within whale blubber, which actually concentrate and store fat-soluble toxins. In elegant prose, Giggs crystallizes research on pollution in marine biology and ecology that helps explain the effect on whales of pollutants like molecular heavy metals and the inorganic compounds that comprise pesticides, fertilizers, and other pollutants. She describes the whale's body as a "magnifier" and shows that as a result of their unique cellular processes whales are even "more polluted than their environment."[4]

The whale with the greenhouse in its stomach caused writer Rebecca Giggs' "understanding of what a pollutant was [to come] undone," awakening the author to the unstable boundaries between creatures and their habitats.[5] In thinking about whales, Giggs realized: "It mattered not just where pollution came from, and how much of it there was, but what sorts of bodies received it."[6] Giggs moves on from whales to talk about the concentration of toxins in the bodies of Inuit women in Greenland who consume whale meat and whose breast milk, as a result, contains dangerously high levels of mercury and organochlorines. "[W]hales were making visible something that had been invisible to me before: how regular human life seeped into the habitus of wildlife, and how wildlife returned back to us, the evidence of our own obliviousness."[7] Giggs arrives at an insight about humans that had been invisible to her before she began thinking about whales: the violence that humans commit on the world is fated eventually to return to us—not metaphorically but materially, even in the very cells of our bodies. The things that humans produce permeate the environment we share with nonhuman creatures, and the bodies of those nonhuman creatures, and eventually return into human bodies. The boundaries between humans and whales and the environments we share are porous, and things like microscopic toxins and plastic greenhouses slip between them. We are very like whales.

The Biocultural Creature

What polluted whales made visible to Giggs is strikingly similar to the theory of the human put forward by theorist Samantha Frost: humans as "biocultural creatures." The "culture" in Frost's term is not a noun, but a verb: "to cultivate, to provide some kind of medium within which a thing or things can grow ….To think of culture in terms of cultivation enables us to incorporate ….the material, social, and symbolic worlds we inhabit."[8] In other words, humans are cultured by our environments; our habitats culture us. And by *us*, I mean humans and whales. Frost arrived at her insights about biocultural creatures and habitats not by thinking with whales, but by a deep immersion in biological science on a much smaller scale: the human cell. The membrane that contains a cell and separates it from its environment is constitutively porous and permeable.

> [Cells] are permeable both in the way they are composed and in the peppering of their surface with innumerable channels, gates, and pores that facilitate and

> force a continual traffic of molecules into and out of cells. Indeed, that traffic is so continuous and so necessary to the activity and survival of a cell that the function of the membrane as a defining boundary became conceptually fuzzy: what kind of boundary is it if it is constituted so as to enable the continuous influx of molecules from the putative "outside" and the continuous efflux of molecules from the putative "inside"?[9]

The essential permeability of cell membranes caused Frost's understanding of boundaries "to come undone," just as whales caused Giggs' understanding of pollutants to come undone. From that undoing, Frost constructed a new theory of human life.

Frost put forward the theory of humans as biocultural creatures in order to address a problem in critical theory: the exhaustion of the category of human under the weight of rightful critiques. On the one hand, the philosophical task of defining humans against nonhuman others slips easily into harmful fantasies of human exceptionalism and mastery. On the other hand, theories like the Anthropocene accord humans with planet-altering agency. Neither theory adequately explains the complex relationship that humans have with other creatures nor with the nutrient and toxin-rich environments we share. Frost writes: "The conviction that the idea of the human is not much more than a hollow fantasy coexists uneasily with the claim that humans as a species are a geological force."[10] Frost acknowledges the "strained antagonism between these two positions," but resists the temptation to abandon the category of the human altogether.[11] In some critiques of the troubled concept of the human—in posthumanist studies of agency and materiality grouped under rubrics like new materialism, actor-network theory, transcorporeality, object-oriented ontology, and others—Frost locates an implicit "counter-theory" of the human. This counter-theory defines humans as "creatures who are embedded in various ecologies and networks of relations and who can integrate their acknowledgment of their embodiment, animality, physicality, dependence, and vulnerability into their self-conception and their orientation toward and modes of being in the world."[12] Frost's project in *Biocultural Creatures* is to ground in biological research the implicit theory of the human that emerges in these critiques. The counter-theory of the human as a creature continuously cultured by its environment emerges not only in critical theory but also in contemporary life science research: "Like social theorists, scientists increasingly confirm that there are complex interactions and interchanges between biological and social processes that muddle any distinction we might want to make between body and environment."[13]

It might seem strange, or even wrongheaded, to approach Frost's new theory of the human by writing about very nonhuman whales. But as I intend to demonstrate in this essay, humans are not the only biocultural creatures, and biocultural habitats culture creatures within and beyond species lines. Frost's *Biocultural Creature*s offers a theory of "the" human that aids our capacity to describe difference within and beyond that singular category. Creatures experience bioculturing in different ways. Biocultural theory helps explain how settler colonialism, extraction, and racial capitalism are bioculturing habitats affecting both humans and nonhumans, and in radically contingent and differential ways.[14]

The Biocultural Whale

The porosity of the body, the way that membrane-crossing substances cause more harm within minoritized people and communities, the biochemical effects that settler colonialism and racial capitalism produce: this knowledge does not emanate solely from science or new materialist theory. The biological science that Frost activates in *The Biocultural Creature*s is knowledge that many people in Black, Indigenous, queer, and other minoritized communities already know.[15] In order to demonstrate the richness and deep history of minoritarian biocultural theory, I gather in this essay recent works by Black, queer, and feminist artists and scholars that produce insights about biocultural creatures living in biocultural habitats—in concept, if not in Frost's biocultural nomenclature. In particular, I draw out a strain of recent Black, queer, and feminist art that produces biocultural knowledge through oceanic imagery and whale metaphors. These cetacean works represent whales as kindred creatures who help humans understand our own bioculturing processes. The works I discuss here illustrate and elaborate biocultural theory, and they enlarge and challenge that theory, as well. What emerges from these cetacean works are certain ideas about the relationship between a creature and its environment that align with the following biocultural concepts that Samantha Frost describes and helps us observe: (1) a biocultural creature's body is porous, open to continuous traffic of material across its permeable boundaries; (2) the biocultural creature's basic state of being is not as a static body but as a process of "energy-in-transition."[16] Above all, these cetacean works elaborate the sea and, by extension, the environment itself, as a bioculturing habitat.

I have already begun to suggest how the greenhouse whale awakened Rebecca Giggs to the unstable boundaries between biocultural creatures and biocultural habitats.[17] Whales serve historian Bathsheba Demuth, too, in her reframing of the environmental history of the Bering Strait as a dynamic process of metabolic energy conversions from solar radiation through photosynthesis in plants and upward in scale through fish, walruses, whales, and humans. She focalizes her history of energy conversion through the life story of an individual whale.[18] I also cite and explore work from what I would call the "oceanic turn" in Black, feminist and queer literature, scholarship, and art—work that figures the ocean as a way of describing Black and queer life, death, and identity. Here, I explore work by scholars like Christina Sharpe, Alexis Pauline Gumbs, Tiffany Lethabo King, the artists Dominique White and Wu Tsang, and by the dancer, choreographer, and poet mayfield brooks.[19] What emerges in this constellation of cetacean works is a concept of the whale as the biocultural creature par excellence. Whales are creatures that—on the basis of their size, charisma, and shared history with some human communities—help make visible better than any other creature (even the human!) the concepts central to understanding biocultural creatures: porosity, permeability, dynamism, and the material vicissitudes of white supremacist and settler colonial violence.

These cetacean works also constitute an alternative idiom or discourse for thinking about the relationships of creatures to habitats. Perhaps thinking about whales makes it easier to understand the active culturing of habitats because water is so much thicker than airy atmospheres: the materiality of water underlines the lesson.[20] The cetacean works I consider here expand on ideas that are implicit in Frost's work. The cetacean works I assemble here also introduce facets of human experience that biocultural theory has not yet accounted for: the lessons of ancestors, and the way that biocultural conditions change and are changed by communities as well as individuals. The cetacean works I discuss here suggest a vision of environmental responsibility underpinned by an understanding of shared vulnerability to harm. These cetacean works ask: how are humans like whales? Which humans, and which whales? And what kinds of habitats, nutrients, toxins, histories, and futures do we share?

This is also an essay about form, about the way that the concept of the biocultural creature is produced through words and figures.[21] These cetacean texts I analyze bring whales into relationship with humans through different rhetorical strategies. Some demonstrate the material points of connection between humans and whales by tracing the nutrients and pollutants that pass materially between humans and whales—as in the example I cited above by

Rebecca Giggs about the greenhouse whale. Other works position whales as teachers, and plumb cetacean stories in search of lessons for humans. Whales are teachers in Alexis Pauline Gumbs' *Undrowned*, a book which is structured as a series of "Black feminist lessons" learned from whales and other marine mammals—for example, "listen," "breathe," "go deep," "be fierce."[22] But the most common conceptual strategy in these works for bringing whales into relationship with humans is the metaphor. Whales help us understand people, these works demonstrate, because they are like us and we are very like them. These rhetorical strategies for bringing humans into relationship with whales are not all that distinct from one another, and the works I explore in this essay deploy all of them in startling and striking combination.

The Problem with Metaphors

The whale's recent turn as the biocultural creature par excellence is not its first outing as an icon of ecological thought: from Job to Herman Melville to Greenpeace, whales have mediated humans' understandings of human and nonhuman life worlds. Ecocritic Lawrence Buell offers a list of the various reasons why whales have been so suitable as environmentalist icons:

> It is not bulk alone that whales have going for them as icon candidates, but the combination of their size, their intelligence (which more easily makes them seen our "kindred"), their fascinating alterity (as creatures of a radially different scale inhabiting a radically different medium: the "subtly darkening deeps"), their increasing scarcity, and (to most, although not all, of earth's inhabitants today) their "nonessential" use-value ….Cetaceans, whales and dolphins both, are also sociable, even sportive; and they have individuality as well as intelligence, including powers of adaptation, mimicry of human sounds, and even the capacity to transmit " 'collective wisdom' from one generation to the next." Cetaceans have remarkably sophisticated and acute vocal and auditory capacities that allow some species to communicate acoustically thousands of miles away by a process still not fully understood ….Perhaps most intriguingly of all from an anthropocentric standpoint, cetaceans seem to enjoy socializing with humans under certain conditions: to play, to race and follow boats, to list and respond to flute music, and so on … Whales anciently seemed to partake of ocean's mysterious, radical, ambiguous otherness: to symbolize divine power, whether benign or threatening. Today whales still seem uncannily other, but with the uncanniness increasingly seen to reside in the "fact" that despite dramatic differences in scale and anatomy and habitat they are so much like us.[23]

The whale-as-biocultural-creature reflects a new iteration in a long history of whale discourse, one that is responsive to contemporary ideas about climate change and other disasters of extractive capitalism. The whale-as-biocultural-creature discourse depends so heavily on the conceptual strategy of metaphor for bringing humans into comparison with whales. This conceptual strategy—whales as metaphors for humans—is not new: even Buell ends his long accounting of whales as icons of environmentalists with the durable idea that "they are so much like us."

But another strand of environmental humanities thought holds that metaphors are dangerous, that metaphors are habits of thought that license violence. The condemnation of animal metaphors and symbols in literature is a long tradition in animal studies. To represent animals in literature only as metaphors for the human "deadens [animal] subjectivity," writes Josephine Donovan.[24] Marian Scholtmeijer describes the way animals appear in so much literature—as symbols, metaphors, or in other ways of advancing human interests—as "ideational exploitation"—as yet another way in which animal bodies are destroyed in order to serve human comfort.[25] Violence to animal bodies is baked even more deeply into the language of representation across many different media, according to Nicole Shukin. As Shukin explains, "rendering" animals is both a material and representational practice; certain types of anthropocentric representation participate in the violence of animal capitalism.[26]

But it is not only in animal studies that metaphors are seen as figures that exploit. In an essay on extraction and David Walker's *Appeal*, Jeff Insko writes: "[T]he logic of extraction mirrors the material/epistemological logic of coloniality: *ex*traction (or extractivism) is coterminous with *ab*straction …. Extractivism alienates [minerals, metals, elements, and some humans] from their contexts, transforming them instead into fungible commodities, converting 'nature' into 'natural resources' and human beings into 'capital stock' by severing each from the interrelationships that might otherwise be seen to define them."[27] Metaphors are some of the figures that carry out in literature the logics of extraction and abstraction: metaphors extract, they remove objects from their context, they flee the scene. This argument about the extractive work of metaphors is continuous with the animal studies critique.

Perhaps most salient to my subject in this essay is the way that metaphors have been condemned in oceanic studies. Hester Blum opened her influential 2010 essay "The Prospect of Oceanic Studies" with an admonition: "The sea is not a metaphor."[28] Blum's essay implicitly acknowledges a binary distinction between metaphorical and material – and like the scholars in animal studies—urges fellow

scholars in oceanic studies to attend more to the material. In one of her inimitable *PMLA* editors' columns, Patricia Yaeger issued an even more specific warning about the political violence inherent in so many oceanic metaphors: "Figures of the boundless sea or the oceanic sublime encourage humans to treat it as an inexhaustible storehouse of goods."[29] As Yaeger notes, the ocean as a metaphor typically stands in for false abundance. Metaphors can pull our attention away from the violence of extraction, away from shifting environmental baselines, and away from the specific conditions of life and death at sea. Metaphors can pull the objects they describe out of time. Metaphors are, in short, the bad guys of environmental rhetoric.

And so it would seem that whale metaphors also represent, rehearse, and license the violence against whales that humans already commit: through industrial whaling, global warming, ocean acidification, plastic pollution, industrial agricultural runoff, noise pollution, ship strikes, ultradeep mineral extraction, and so on. In the past, I have subscribed to the idea of the dangerous metaphor in my own scholarship about whales.[30] But the cohort of cetacean work that I assemble is changing my mind about the affordances of environmental metaphors.[31] These metaphors name and represent the disasters of racial capitalism, settler colonialism, and extraction that created climate change. The ideas that Frost calls biocultural destabilizes what we understand of anthropocentrism and the violent rendering of animal bodies—in figurative language as well as in the world. Some oceanic and whale metaphors abet anti-extractivist, anti-racist, and decolonial thinking by showing that biocultural creatures who share biocultural habitats are mutually vulnerable to harm, albeit in different ways depending on subject position. In turn, Black, feminist, and queer thought puts pressure on the rhetorical work of metaphors and creates new forms of metaphorical thinking. In their oceanic and cetacean work, the boundary between the object and referent of a metaphor is, like the membranes of biocultural creatures, permeable and porous.

The Oceanic Turn in Black and Queer Radical Thought

The radical possibilities of whale metaphors and biocultural thought have emerged within the oceanic turn of Black, feminist, and queer radical thought.[32] With her 2016 book *In the Wake: On Blackness and Being*, Christina Sharpe gives us the metaphor of "the wake" in order that we can understand how Black life and death are shaped by transatlantic slavery and the ongoing disaster of

anti-Blackness. The "wake" is a multivalent metaphor for the track that a ship leaves on the sea, the state of wakefulness, a mourning ritual after a loved one's death, and the trajectory of a gun's recoil. The ship's wake also gives the book its structure. Sharpe's book traces what she calls "the semiotics of the slave ship" with chapters on "The Wake," "The Ship," "The Hold," and "The Weather." In her 2019 book *The Black Shoals: Offshore Formations of Black and Native Studies*, Tiffany Lethabo King offers, among so many other gifts, a brilliant genealogy of oceanic thought in Black diasporic literature, theory, and art. King cites Hortense Spillers' invocation of the "oceanic"; Paul Gilroy's "Black Atlantic"; Édouard Glissant's "archipelagic thought"; Kamau Brathwaite's "tidalectics," among many other key terms.[33] To the tradition of Black oceanic thought, King offers an important and revisionary oceanic metaphor—the "shoals," another multivalent metaphor that describes the offshore geological formations that slow ship traffic and trouble distinctions between land and water.

There are many productive ways of approaching the corpus of works in Black, queer, and feminist oceanic theory and art that I gather here. The whale metaphors that I discuss might productively be brought together with the corpus of Black diasporan culture that Zakiyyah Iman Jackson traces in *Becoming Human*: the long tradition of Black thought that critiques and resists the category of the human and that "generate[s] unruly conceptions of being and materiality that creatively disrupt the human-animal distinction and its persistent raciality."[34] After all, metaphors comparing humans to whales are a profound disruption of the human-animal distinction. The way these thinkers and artists turn to cetaceans as an idiom for expression suggests a flight from the human, perhaps for the reasons that Jackson states: "If being recognized as human offers no reprieve from ontologizing dominance and violence, then what might we gain from the rupture of 'the human'?"[35] I look forward to seeing how cetacean thought and whale metaphors are taken up by the Black feminist critics of the human. Here, I take up a different kind of work: I trace the emergent form of the whale metaphor as a way of understanding what it means to be *cultured* by biocultural habitats. In whale metaphors, I do not observe a straightforward rejection of the human category; the whale metaphor is a thread that connects the cetacean back to the human.

Oceanic metaphors abet intimacy for Alexis Pauline Gumbs in *Undrowned*: a book of Black feminist lessons from marine mammals. Reading in scientific and naturalist literature about marine mammals, Gumbs draws extensive parallels between herself and sea creatures like whales, dolphins, and rays. She is comparing people with marine mammals—this with that—but it is neither

precise nor expansive enough to say that Gumbs is making simple metaphors of the marine mammals she writes about. Gumbs eschews the simple clarity of image and referent. Instead, Gumbs practices what she calls "identification." Gumbs enacts this intimacy and identification in the form of this miraculous book, through long ambiguous and loving passages written in the second person and which might address herself, her loved ones, her ancestors, or the marine mammals themselves: "the intimacy, the intentional ambiguity about who is who, speaking to whom and when is about undoing a definition of the human, which is so tangled in separation and domination that it is consistently making our lives incompatible with the planet."[36]

In *Undrowned,* Gumbs works at the dissolving boundary between metaphor and material. She identifies with whales, and attends to the particularity of their anatomies and behaviors. Gumbs also writes about ancestors in the sea as material remains. In one section, she observes that the Atlantic gray whales were reported extinct at the same time that the transatlantic slave trade came to an end. She sees those dying gray whales in profound empathy with enslaved people, simultaneous victims of the same racial capitalist/settler colonial/extractive disaster.

> I wonder. Yes. I wonder if the toxicity of the slave trade and its impact on the ocean have been under-reported. Lucille Clifton says the "Atlantic is a sea of bones." What is the half-life of the transubstantiation of life into servitude? Does it ever dissolve? And the bones of those captives who freed themselves, or left their bodies and were subsequently thrown overboard became … what? Sediment. Filtered ultimately into the baleen of the Atlantic gray whale, right? So there is actually a digestive truth to the idea that the ancestors we lost in the transatlantic slave trade became whales.[37]

Gumbs pushes past the boundaries of metaphorical thought into identification, not only through force of empathy and habit of mind but by seeing whales as kin in the most material, chemical way. Through Gumbs' identification—through a structure of thought that collapses the metaphor and the material, this and that—there are no sharp divisions between forms of violence and forms of life. Gumbs models a form of material-metaphorical speculation that dissolves human-nonhuman boundaries at sea, all while locating, honoring, and elucidating the subject position of those humans and nonhumans.

"Identification" is metaphor in practice, a way of thinking that brings together two different subjects. Gumbs writes: "My task here, as a marine mammal apprentice, opening myself to guidance from these advanced marine mammals

is to identify *with*."[38] In Gumbs' work, identification is a form of comparison—you are like me, you are me—that proceeds from humility and empathy rather than domination and violence. The type of identification that Gumbs practices does not collapse the difference between humans and whales because Gumbs and the others described here attend vividly and patiently to the biocultural lives and habitats of others.

It is worth clarifying the affordances of human identification with whales. Not all practices of cetacean identification position whales as metaphors for human or elaborate the concept of the biocultural. Wu Tsang's multidisciplinary cycle of film and video works about Herman Melville's *Moby-Dick* includes one such work: the digital video installation "Of Whales," which turns away from humans altogether. The work, created on a video gaming platform and projected on a huge horizontal screen, cycles through imagery both representational and abstract. The representational sea imagery in Tsang's installation—floating underwater jellyfish, huge sperm whales gliding by, and forests of ropy kelp—orients the viewer and locates us underwater, moving through the ocean from a swimming whale's point of view. The video works on a loop that follows the cycle of a whale's breath: about every hour, the whale surfaces and the video portrays imagery of the surface of the ocean and the sky before plunging again underwater for another hour of underwater scenes and psychedelic visuals.

By positioning the viewer of the installation within the body of the whale and giving the installation the rhythm of a whale's breath, "Of Whales" is a work of profound identification, but it is not exactly metaphorical. The work does not invite comparisons between humans and whales; instead, the work centers whales and decenters humans. Understood as a companion piece to Tsang's film *Moby Dick; or, The Whale*, which features a queer and transgender whaling crew, "Of Whales" is a work of what Mel Chen and Dana Luciano have called "queer inhumanism": an effort to rethink human experiences of sex and gender "apart from the anthropocentric forms with which we have become perhaps too familiar."[39] Tsang's representation of the whale's perspective in "Of Whales" is not fully inhuman; after all the digital installation renders imagery through very human computer programs and, as Tsang herself notes in an interview, humans can't experience or represent the world through a whale's senses:

> And in the Venice installation ["Of Whales"], the concept for me was the perspective of the whale. However, I also feel like it's an impossible perspective because I'm a human. I think we can't actually in imagery create the perspective of a whale because they see primarily through sound.[40]

Even as posthumanist or queer inhumanist works like Tsang's cannot ultimately escape the category of the human, they push past the horizon—the waterline—of the category of the human that has, as Frost has noted, been so exhausted in contemporary theory. And while Tsang's work represents a type of posthumanist "identification" that looks to whales to make meaning about humanity, it is a different type of meaning than that created through metaphors.

It is worth taking a detour, too, through work of Black oceanic metaphorical thought that elucidates the affordance of metaphor without necessarily working through whale or cetacean imagery. The artist Dominique White works in an oceanic and metaphorical idiom to create reflections on Black histories and futures. Her sculptures have different affordances than Sharpe's prose for deploying oceanic metaphors and representing time. She produces sculptural installations made from nautical materials like sisal, synthetic rope, salvaged sails, kaolin clay, and barbed iron hooks or harpoons: materials that she shreds, weaves together, constructs, and tears in order to create large, immersive sculptures. White told one interviewer: "I emulate shipwrecks."[41] Although her work is made out of carefully sourced maritime salvage and flotsam, her work does not exactly *represent* shipwrecks, and the work both is and is not metaphorical.

The installation called "May you break free and outlive your enemies" appears like the aftermath of a battle with hook-shaped debris spread all over a darkened room.[42] At the center of the dark room, lit so that it glows ghostly white, is the installation's central assemblage, a matted tangle of natural and synthetic ropes. To create the central sculpture, White shredded, wove together, and then ripped apart again the mass of raffia, rope, canvas, and sisal, and she suspended the work on iron hooks and planks from the dark ceiling. The ropey assemblage is clotted and matted with white kaolin clay that has dropped on the floor below the sculpture, creating dusty splatters sometimes blurred by visitors' footprints. According to the gallery notes, "May you break free" restages the myth of Hercules and the Hydra, imagining the state as an ever-regenerating, many-headed Hydra, and Blackness itself as the force with power to slay the monster. The installation's narrative and representational content is not straightforward; what appears to the viewer in the gallery space is a mysterious aftermath and the trace of great violence. The work, suspended delicately on sharp hooks, seems almost kinetic, as it hovers between the abstract and representational, the material and the metaphor. There is rope fiber and sail canvas, but not exactly a ship: only fragment or synecdoche. The gallery viewer cannot say: here is the ship, here is the Hydra, here is Blackness, here is the State.

White's shipwrecks demonstrate some of the aesthetic possibilities for metaphors in Black radical thought. She does not resist or reject metaphor in her work, but neither does she create work in which one image stands neatly for one stable referent. Her metaphors crack open political possibilities rather than pinning them down. An interviewer asking White about "May you break free" pushed her to clarify the relationship of Blackness to the shipwreck imagery, and White resisted:

> I would say it's not immediately clear what the shipwreck is. Because it is this mangled form, it could very easily shapeshift into different forms, but it also becomes present in my work when I use different materials, in the shape of where I would like to represent blackness. That's why a lot of these clay structures are evidently formless, they don't necessarily resemble a body. There's this idea of breaking from specific categories or specific definitions.[43]

Instead of delineating a clear metaphor for the shipwrecks that her work "emulates," White proposes the concept "Shipwreck(ed)." In one artist biography, she describes the concept as the object of her work: "Dominique White weaves together the theories of Black Subjectivity, Afro-pessimism, and Hydrarchy (from below) with the nautical myths of Black Diaspora into a terms she defines as the Shipwreck(ed); a reflexive verb and a state of being."[44] Her works are not shipwrecks; she herself and others in the Black diasporic community are Shipwreck(ed). White's work may seem slightly out of place in an essay about whale metaphors, but the whale nevertheless lurks beneath the surface: the title for White's work, "May you break free and outlive your enemy," is a quotation pulled from Gumbs' *Undrowned*: White writes,

> In *Undrowned* by Alexis Pauline Gumbs … there's this beautiful passage in which my work's title is paraphrased from in which she is writing a love letter to whales, who refused to be captured or categorised, shot by harpoons and refuse to die, and that's what really inspired me for the title of this show, the title of the work and the title of the show are essentially the same.[45]

Sisal robe fibers are not the only materials that Dominique White weaves together; White's work is deeply citational, referring to the work of Gumbs, Sharpe, Marcus Rediker, Peter Linebaugh, Kathryn Yusoff, and many others. And in this work, Gumbs' practice of identification with whales abetted White's own transcendent sculptural metaphors.

These works activate metaphors as analytics: they all show just how futile it is to try to parse the difference between the material and the metaphorical. The slave ship is a metaphor and a semiotic and an icon and also, 200 years ago, it

was a vessel of transatlantic slavery, a prison for enslaved Africans. Those slave ships endure today, some as wrecks at the bottom of the ocean. By invoking ancestors who died in the Middle Passage, Gumbs, Sharpe, and White, in particular, remind us of the very material realities that their metaphors evoke. Sharpe writes of enslaved Africans who died in the Middle Passage: that "they, like us, are alive in hydrogen, in oxygen; in carbon, in phosphorous, and iron; in sodium and chlorine. This is what we know about those Africans thrown, jumped, dumped overboard in Middle Passage; they are with us still, in the time of the wake, known as residence time."[46] The metaphorical analytics of the wake and the ship activate anti-extraction/anti-abstraction thought. *These* metaphors push all of us to new engagements with the material. This is why the metaphor is such a rich form for the representation of biocultural creatureliness.

Whale Identification and the Biocultural Habitat of Anti-Blackness

Even in and after death, whales serve as rich sites for radical Black thought about biocultural life. "Whale fall" is the name given by marine biologists for the corpse of a whale which, through the long process of its decomposition on the ocean floor, creates a vibrant and changing ecosystem for other creatures who depend on the unique structure and changing nutritional offerings of the whale corpse during its years-long decomposition. Marine scientists describe whale falls as "remarkable," energy-rich environments that support complex ecosystems teeming with species rarely or never observed before.[47] The whale fall is generating life on land, too; in recent years, the whale fall has inspired humanities scholarship, volumes of poetry, lyric essays, and even a children's book.[48]

The whale fall is a remarkable and multivalent site for mayfield brooks in a multidisciplinary cycle of works called "Whale Fall." And like Gumbs, brooks portrays whales as teachers: "So, I look to the whale to teach me how to live and die. I look to the whale to teach me how to breathe. I look to the whale to teach me how to sing, listen, echolocate, communicate, take care of my matriarchal families, and enrich the oceans."[49] So far, brooks has created a number of projects centered on the theme of whale fall, including a 2021 dance film called *Whale Fall* (made in the very early months of the Covid-19 pandemic), poems, a zine called *Sensoria* co-created with Duskin Drum, and *Whale Fall II*, an installation and workshop space at the Center for Performance Research.

In the Whale Fall cycle, brooks confronts Black death and processes profound grief. In an interview with the *New York Times*, brooks described being overwhelmed with Black death, citing the police killings of Trayvon Martin and George Floyd, as well as broader issues of environmental injustice and Covid-19. brooks began work on this project before Covid-19, but the pandemic haunts the work: brooks reflects on the disproportionate number of Black people sickened and killed in the early days of the pandemic, and on the consequences of social isolation and disconnection.

At the same time that brooks was processing these traumas, they began reading about whale beaching events, other simultaneous spectacles of mass death. Those accounts turned brooks' attention to whales. Speaking to the *New York Times*, brooks says:

> Whales, because of their blubber, carry all these toxins … There's this whole other aspect to it that brought me to how so many Black bodies were dying from Covid and the amount of toxins that Black bodies carry, whether it's from trauma or living near brownfields or the cost of poverty. I started feeling that the whale body is very similar to the Black body.[50]

In a work called "The Artist Is Not Present," brooks offers another statement of identification:

> The bodies of whales and the bodies of Black folk seem to have
> a kinship in how they have both been hunted, consumed,
> disappeared, and silenced from the time of the transatlantic slave trade.
> Some slave ships were later used as whaling vessels.[51]

Here, brooks describes the "kinship" between whales and Black people as a shared history. Through the transatlantic slave trade, Black people were dispossessed of their home; their labor was extracted; and their lives very often destroyed. Through whaling, whales' bodies were also extracted for oil and energy, and their bodies destroyed. They share the experience of racial capitalist/settlercolonial/extractive disaster at sea.

brooks expands our understanding of human/whale kinship by focusing on the way that whales and Black people are specifically harmed by their biocultural habitats. In brooks' vision, Black bodies and whale bodies inhabit especially toxic biocultural habitats; toxins from polluted environments cross permeable membranes into their bodies; and both whale and Black bodies concentrate those toxins and experience harm and even death. In the *Times* interview, brooks describes grieving the death of Black people killed by police violence (Trayvon

Martin and George Floyd) and racist transphobia (Marsha P. Johnson). In describing their reason for identifying a kinship between Black people and whales, brooks' rhetoric slips between the metaphorical and literal. The metaphorical "toxins" that killed Black people are white supremacy and transphobia.

brooks speaks, too, to the way Black bodies are disproportionately exposed to literal toxins; brooks cited brownfields, which are polluted or contaminated lands where Black communities are much more likely to live. Black Americans are overwhelmingly more likely to be exposed to dangerous toxins than other racial groups: 75 percent more likely than other racial groups to live in "fence-line" communities bordering facilities that produce hazardous waste. And exposure to polluted air is statistically correlated with deaths from Covid-19.[52] Black people are more likely than white people to die from Covid, and other respiratory diseases, in part because Black lungs are more likely to be damaged from exposure to pollution.

Racism and environmental injustice are concentrated in Black bodies *like* toxins and *as* toxins. brooks' meditation on how whales are like Black people demonstrates the forms of theoretical knowledge that can emerge when theorists—or in brooks' case, artists—engage with the life sciences. Thinking about the way that toxins concentrate in the bodies of Black people and whales is one way that brooks fulfills Frost's call to "deculturalize culture": "to demand a fuller, richer, more expansive sense of the environments that culture human creatures … [and] to appreciate more robustly the way that subjective and collective experiences leave their mark in the flesh."[53] Anti-Blackness is the "subjective and collective experience" whose mark in the flesh brooks is charting in Whale Fall, and their work makes clear that anti-Blackness is registered by Black bodies, cells, and molecular structures as well as in Black minds, emotions, and communities. In several moments throughout *Biocultural Creatures*, Frost reminds readers that it is important to work with the concept of the biocultural creature "without having to reinstate race as a biological category."[54] Race does not appear as an identity with a biological basis in brooks' work, but anti-Blackness does appear as a bioculturing habitat: the immersive, culturing medium in which humans live just as whales live in water. The way that brooks portrays anti-Blackness as the sea, as an immersive biocultural habitat, is reminiscent of the way that Christina Sharpe called anti-Blackness "weather" or "total climate."[55] brooks' words about the similarity between whales and Black bodies is not just an example or instantiation of what Frost calls biocultural thinking, but an important theory that sits alongside the concept of the biocultural creature, elaborating a racialized biocultural *habitat* of anti-Blackness, and its specific bioculturing of Black bodies.

Whale Fall and Biocultural Lives after Death

mayfield brooks' poems, writings, and choreographic work posit a complex metaphorical relationship between Black people and whales, and they describe anti-Blackness as a biocultural habitat that has specific, violent effects on the biocultural Black bodies that inhabit it. Their Whale Fall cycle also suggests, if not exactly, a way out of the biocultural habitat of anti-Blackness, a way of imagining life and community within its impossible strictures.

In their 2021 dance film *Whale Fall*, brooks explores the phenomenon of "whale fall" as an example or a lesson in how to live within conditions that make life seem impossible.[56] The fifty-minute film, created in collaboration with composer Everett Sauders and cinematographer Suzi Sadler, documents brooks' (mostly) solo performance in an empty theater space. The film opens with an epigraphic poem, which is projected in successive stanzas in white type against the mostly dark background of the empty theater. The poem is at first fanciful, dramatizing an encounter with a talking whale: "Whale came to visit me today / Whale said, / Hey do you have a moment?" This whale takes up a teacherly tone with an invitation to the speaker to accompany them to the bottom of the ocean and learn how to live and die. The speaker of the poem offers resistance and the whale offers reassurance.

I said,
    Whale, I cannot go to the depths
    I won't be able to breathe there
Whale said,
    You can't breathe here on earth.

    Your ancestors sent me here to
    remind you of your impossible
    existence.

The line "you can't breathe here on earth" evokes the dying words of Eric Garner, the millions dying from Covid-19, the Black communities breathing polluted air near brownfields and superfund sites. That line and the lines that follow ("Your ancestors sent me here to / remind you of your impossible / existence") recast the poem and the performance's orientation to death, too. The whale offers the idea that death and descent to oceanic depths are, like Black life in a biocultural habitat of anti-Blackness, both versions of "impossible / existence." The line resonates with the Afropessimistic critique that white supremacist societies are built on anti-Blackness and the ongoing spectacle of Black death.[57] But the poem

affirms existence even within the totalizing climate and biocultural habitat of anti-Blackness. The line break between "impossible" and "existence" creates space for a change in mood: "impossible" closes the door to life, but "existence" implies being and even possibility. The line break emphasizes the point by putting the spotlight on the word, "existence," that stands by itself.

From there, the poem unfolds with a description of whale fall and a concise key to the remainder of the performance:

> Whale said,
> When you fall, you will die and
> be reborn again
>
> You will replenish the ocean
> with your cellular body
>
> And you will mingle with the
> cellular bodies of your
> ancestors before time
>
> Whale said,
> *Whale fall* with me to the
> bottom of the sea

At the end of the poem, the performance begins: brooks enters the empty theater space, opens up a record player, and puts on a record playing loud whooshing ocean sounds. I saw the film unfolding in what I will call three movements. These sections were not demarcated within the work itself; my language of "movements" reflects my own understanding of the film's structure. In the first movement that immediately follows the poem, the camera follows brooks' powerful form around the space of the theater as they sit in a chair, knit, and then begin moving a piano and large, heavy boards and planks around the small space. brooks' movement changes the light in the space; at first the theater is dark but with bright, almost overexposed, light coming in through tall windows. But as they move around the space, brooks changes the light, pulling curtains, blocking off windows, and making the space darker. The sound swirls in the space, the ocean sound mingling with a musical score and with brooks in voiceover whispering the whalefall poem and passages from Melville's *Moby-Dick*. Inside the space of the theater, we can hear the sound of brooks' scat-like singing and, eventually, crying and screaming in unmistakable grief.

In the second movement of the film, the screen is almost entirely dark, and we viewers lose a sense of space, narrative, and body. The score is filled with whale song and gurgling water sounds. Eventually brooks' body emerges, lit softly, and viewed only one part at a time. We see brooks' hands and fingers on their back, touching and pulling and muscles along their spine. And then, we see a single leg, moving on its own as if running and then, with strength and grace, lifting off the ground to become almost horizontal. The leg looks as if it is lifting off to swim. Eventually, a shape cloaked in shining gold fabric appears in frame. Is this a masked hand, shoulder, or face? The shape shines in the darkness, appearing isolated from the body that brings it to life. The shape moves unpredictably in the dark screen. It is not difficult to imagine this moment in the film as an enactment of whalefall: the body's breakup and descent into the deep ocean. It is easy to imagine the parts of the body in dark space floating or falling in water. Coming as it does after brooks' visceral performance of wailing grief, the dancer's weightless descent feels calm.

We see the artist's whole figure once again in the third movement of the film, as brooks crawls artfully on the floor of the theater toward a door. They push open the door and let bright outdoor light spill once again into the theater. Over the course of several minutes, three hooded figures in dresses and robes process through the door into the room, the last bearing a tray of tea and glasses. The film ends as the four figures (including brooks) sit together on the floor of the studio, smiling and laughing together, and raising their glasses together in joy. The camera makes its offerings, too, showing the faces of brooks and the other performers in fellowship smiling and laughing. The film ends in surprising joy. As the whale prophesized in the opening poem: "You will replenish the ocean / with your cellular body / And you will mingle with the / cellular bodies of your / ancestors before time." The impossible existence of whale fall offers community with ancestors and joyful recognition.

brooks' identification with whales is the premise of *Whale Fall* and—as in the work of the many writers, scholars, and artists I have cited in this piece—the piece routes its viewers' attention through a whale metaphor in order to elucidate the biocultural habitat and creatureliness of humans, specifically of Black people in a bioculturing habitat of anti-Blackness. It is important to note that brooks' work attends closely to the ecological process of whale fall; their work is steeped in scientific research. It can be tempting to claim that metaphorical engagements with whales—even those that work through the intimate, radical metaphor of identification—are not about whales, but always about humans.

But I argue that *Whale Fall*, like many of the works assembled here, is about whales *and* humans, specifically the humans of the Black diaspora. *Whale Fall* is a fascinating case study in the representation of nonhuman biological, ecological, and biocultural processes. The poem that introduces the film speaks in specifically biological terms ("cellular") to describe the Black subject of the film and the ancestors that whalefall promises: "You will replenish the ocean / with your cellular body / and you will mingle with the / cellular bodies of your / ancestors before time." By rendering the body as "cellular," the poem works at the same scale of analysis, the cell, as Frost's *Biocultural Creatures*. Through those extraordinary moments in the film's second movement where brooks' body appears only one part at a time—their back, hands, fingers, leg—*Whale Fall* also represents the dissolution and decomposition of a whale's body. This, too, is a way of representing the whale, and the way its material body changes after the creature's death. The whale's body is a site of energy-in-transition, even in death. The gathering of ancestors over tea at the end of the film is highly symbolic, but it, too, is a representation of new life at the body of the deceased whale: the "deep-sea metazoan communities at whale fall" that the ecologists write about.[58] The light and dark imagery of the film also represent "energy" itself. Although the third movement of the film depicts ocean-floor community, it is lit with outdoor light shining in through an open door, a symbolic and indexical representation of energy created through the metabolic conversions inherent to life and death.

Whale Fall is also a work about Black communities and Black death, about biocultural creatures if not, exactly, "the human." We know this from the work itself and also from all of the paratexts that surround the film: brooks' published work, poems, press interviews, gallery websites, and the epigraphic poem that begin the film and resonate through the piece in voiceover. And after all, brooks' own body is the medium of the work. brooks' *Whale Fall* demonstrates the capacity of biocultural theory to describe white supremacy and environmental injustice as features of a bioculturing habitat. brooks' work also enlarges the theory of the biocultural creature by engaging with an aspect of human existence outside the purview of Frost's theory of biocultural creatures: the spirits and ancestors that brooks joins in joyful reunion at the film's end. The communion of these spirits in their impossible existence at the bottom of the sea affirms an important tenet of biocultural theory: we are biocultural creatures in biocultural habitats, and also in community, across time and now.

Notes

1 Rebecca Giggs, *Fathoms: The World in the Whale* (New York: Simon & Schuster, 2020), 9–10.

2 Adam Voiland, "Almería's Sea of Greenhouses," *NASA Earth Observatory*, May 24, 2022, https://earthobservatory.nasa.gov/images/150070/almerias-sea-of-greenhouses; Giles Tremlett, "Spanish Sperm Whale Death Linked to UK Supermarket Supplier's Plastic," *The Guardian*, March 8, 2013, https://www.theguardian.com/world/2013/mar/08/spain-sperm-whale-death-swallowed-plastic; Rafael Méndez, "A Plastic Killer Lurking in the Deep," *El País*, March 11, 2013, https://english.elpais.com/elpais/2013/03/11/inenglish/1363028117_489513.html.

3 Giggs, *Fathoms*, 10.

4 Ibid., 10.

5 Ibid., 14.

6 Ibid., 15.

7 Ibid., 16–17.

8 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Durham and London: Duke University Press, 2016), 4.

9 Frost, *Biocultural Creatures*, 54.

10 Ibid., 2.

11 Ibid., 3.

12 Ibid., 3.

13 Ibid., 13.

14 Frost accounts for the ways that historical forces like race and colonialism work at the level of the cell; social forces are some of the forces that culture, and "deculturizing" through biocultural theory is a way of making those forces visible: "[…] to deculturalize culture is to appreciate more robustly the ways that subjective and collective experiences leave their mark in the flesh; the normative imperatives that drive contemporary discourses of biopolitics and settler colonialism, the pulsing of neoliberalism and empire in their various economic, cultural, and military manifestations, the entrenchment of racialized violence, and the reverberations of climate change become more or less transiently embodied, incorporated in ways that both frustrate and facilitate social and political processes of institutionalization and protest." Frost, *Biocultural Creatures*, 153.

15 Many other critics have also productively critiqued new materialist theory, observing the limits of its liberatory potential, and its appropriation or ignorance of Indigenous and other minoritized forms of knowledge. Jerry Lee Rosiek, Jimmy Snyder, and Scott L. Pratt, "The New Materialisms and Indigenous Theories of Non-Human Agency: Making the Case for Respectful Anti-Colonial

Engagement." *Qualitative Inquiry* 26, no. 3–4 (March 2020): 331–46, https://doi.org/10.1177/1077800419830135; Vanessa Watts, "Indigenous Place-Thought & Agency amongst Humans and Non-Humans (First Woman and Sky Woman Go on a European World Tour!)." *Decolonization: Indigeneity, Education, & Society* 2, no. 1 (2013): 20–34; Anna Kornbluh, "Extinct Critique." *South Atlantic Quarterly* 119, no. 4 (October 1, 2020): 767–77, https://doi.org/10.1215/00382876-8663675; Dana Luciano, "Sacred Theories of Earth: Matters of Spirit in The Soul of Things." *American Literature* 86, no. 4 (December 2014): 713–36, https://doi.org/10.1215/00029831-2811754.

16 Frost, *Biocultural Creatures*, 104.

17 Giggs, *Fathoms*, 14.

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

19 Christina Elizabeth Sharpe, *In the Wake: On Blackness and Being* (Durham: Duke University Press, 2016); Alexis Pauline Gumbs, *Undrowned: Black Feminist Lessons from Marine Mammals*, Emergent Strategy Series (Chico: AK Press, 2020); Alexis Pauline Gumbs, "Being Ocean as Praxis." *Qui Parle* 28, no. 2 (December 1, 2019): 335–52, https://doi.org/10.1215/10418385-7861848; Tiffany Lethabo King, *The Black Shoals: Offshore Formations of Black and Native Studies* (Durham: Duke University Press, 2019).

20 Thinking the biocultural through seawater, as these cetacean works do, makes their work an example of the "conceptual displacement" that media theorist Melody Jue calls for in her research on oceanic media. Melody Jue, *Wild Blue Media: Thinking through Seawater*, *Elements* (Durham London: Duke University Press, 2020).

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2

Biocultural Histories of the Black Anthropocene: Energy, Consumption, and Nonhuman Worlds in *The History of Barbados* and *The History of Mary Prince*

Anna Feuerstein

The world's first factories held enslaved people. Originally built along the coast of West Africa for storing trade goods such as gold, guns, and cloth, European forts—called factories—became horrific holding cells for the people who would be traded for these goods and others.[1] Sent to European colonies to extract resources from Indigenous land to bolster Western economies and later, industrial development, enslaved people were tragically forced into multiple systems of white supremacy for the extraction of their labor. As Saidiya Hartman explains, "the very word 'factory' documents the indissoluble link between England's industrial revolution and the birth of human commodities."[2] This historical understanding of the factory reminds us of the role the slave trade played in the Anthropocene: a geological epoch in which humans have, perhaps irreversibly, left their mark on the planet. As Eric Williams famously argues in *Capitalism and Slavery*, these factories, and the larger industrial system they were a part of, were financed from the profits accrued from overseas slave plantations and the many industries built up around them, from banking and insurance to industry and ship-building.[3] Alongside this system, the sugar coming from the colonies helped feed the working-class laborers with more calories.[4] Enslaved labor and the profits reaped from what can be called a larger slave industry thus helped fuel the industrial revolution, and resulted in the mass extraction of natural resources such as gold and salt, and the use of land to produce monocrops like tobacco, sugar, and cotton.[5] Factories, mostly in England, slowly transitioned from the use of water to fossil fuels, releasing drastic amounts of CO_2 into the atmosphere. "It was the capital accumulated from the West Indian trade,"

writes Williams, "that financed James Watt and the steam engine."[6] Claims from today's scientific community that Watt's steam engine may have "opened an era of intensified and ever-mounting human influence upon the earth system" emphasize this deep connection between humanity's most brutal epochs and the changing planet.[7] Acknowledging the Anthropocene's link to the history of enslavement emphasizes how deeply climate change is a product of white supremacy, capital accumulation, and the intersections between them; it also allows for a more nuanced understanding of the Anthropocene by not flattening responsibility as equally shared across all of humanity.[8] So, while Andreas Malm reminds us that "Anthropogenic climate change … has its roots *outside* the realm of temperature and precipitation, turtles and polar bears, inside a sphere of human praxis that could be summed up in one word as *labor*,"[9] it's imperative to understand that much of this labor was enslaved, racialized as Black, and controlled by an emerging planter class.

Scholars such as Heather Davis, Zoe Todd, and Kathryn Yusoff, among others, have similarly argued for the importance of locating the Anthropocene's emergence within practices of colonialism and slavery. To emphasize how these twin projects relied on slave labor, Yusoff coins the term "Black Anthropocene," defining it as

> the proximity of black and brown bodies to harm in this intimacy with the inhuman ….an inhuman proximity organized by historical geographies of extraction, grammars of geology, imperial global geographies, and contemporary environmental racism. It is predicated on the presumed absorbent qualities of black and brown bodies to take up the body burdens of exposure to toxicities and to buffer the violence of the earth.[10]

This is perhaps a more apt understanding of Dipesh Chakrabarty's description of the Anthropocene as a merging of human and natural histories, for it nuances how different groups of humans have been unevenly affected by its extraction practices.[11] Foregrounding economic exploitation rationalized through racist discourses and practices of white supremacy, the Black Anthropocene emphasizes how racialization was assembled through relationships with the nonhuman, intensifying the logics and epistemologies that would come to define whiteness beyond an identity formation and as an "onto-epistemic structure that limits the diverse ontologies and materialities of our world."[12] Given these racializing structures, refashioning our understanding of the Anthropocene requires a reconceptualization of the human, which has historically been tied to an Enlightenment construction of the human as Western Man, as Sylvia Wynter

has demonstrated. In an effort to think beyond this hegemonic categorization, Samantha Frost proposes that we understand humans and other creatures as biocultural: the term "'biocultural' encapsulates the mutual constitution of body and environment, of biology and habitat," while "creature" emphasizes that "humans, like all other creatures, are alive and able to stay alive because they are embedded in and draw manifold forms of sustenance from a habitat of some kind."[13] The term biocultural invites us to see ourselves and other creatures as physically connected to and deeply influenced by our environments in a manner that is often reciprocal. Frost's analysis of biological processes at the cellular level shows the porosity of our bodies and how they are shaped by energetic transitions, thus refashioning the human as radically connected to and influenced its environment.

In this essay, I take up Frost's notion of energy-in-transition, "a system of processes that mobilize and take advantage of the ways that energy subsists and transforms under constraints," which she uses to emphasize how biocultural creatures are in process with energies around them.[14] Frost explains that "in focusing on energy-in-transition, I want to mitigate the possibility that we might slip into the habit of thinking of composition in terms of a finished product—a having-been-composed, a static substance, a stable status—rather than thinking about composition as the activity of composing and decomposing."[15] While Frost gleans her concept from the physical processes of cells taking in oxygen, I take it beyond biology and analyze racialized flows of energy as they move under the highly structured constraints of enslavement. Ryan Cecil Jobson's contention that "the indivisible histories of slavery and capitalism are at once histories of energy" emphasizes that histories of energy in the Anthropocene must be seen beyond their connection to fossil fuels and tied to the racialized labor forced to extract them and other materials.[16] Historicizing the biocultural as it emerges within racial discourses of the Anthropocene illuminates how different kinds of energies and energetic transitions have been harnessed to define biocentric notions of race and perpetuate the logics of white supremacy.

Nuancing categories of labor as both racialized and enslaved emphasizes how slavery acts as a metabolic process that assembles racial and class distinctions alongside and through its transformations of biocultural environments. If certain kinds of energies can transition into racial distinctions through forced labor, as Jobson articulates, so too do the metabolic processes involved in extraction work to racialize. According to Karl Marx, labor is a metabolic process between humans and nature; "[l]abor is," Marx argues, "a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself

and nature."[17] John Foster adds that metabolism, as "the notion of 'material exchange' that underlies the notion of structured processes of biological growth and decay," grounds Marx's understanding of labor as the human transformation of nature into capital.[18] Metabolism thus "describe[s] the complex, dynamic, interdependent set of needs and relations brought into being and constantly reproduced in alienated form under capitalism, and the question of human freedom it raised."[19] While Foster emphasizes that metabolism is a relation between humans *and* nature under the constraints of labor within capitalism, Jason Moore describes metabolism as "a flow of flows in which life and matter enter into specific historical—geographical arrangements," thus emphasizing "the historical forms of humanity-*in*-nature."[20] In this understanding, I suggest that metabolism works as a biocultural process that, through specific "historical-geographical arrangements," racializes while reinforcing the hegemony of the white planter class.

To historicize the biocultural and account for racialization within empire histories of the Anthropocene, and to show how different forms of energy-in-transition move under the constraints of white supremacist institutions, including capitalism, I examine two narratives of slavery in the British Caribbean and the two different kinds of metabolic "energy-in-transition" they highlight: the eating of animals in Richard Ligon's 1657 travel narrative *A True and Exact History of the Island of Barbados* and the raking of salt in Mary Prince's 1831 slave narrative *The History of Mary Prince*. Although the practices of eating animals and raking salt may seem disconnected, through their related logics of consumption, ingestion, and porosity they work as an apt analytic to show how nonhuman worlds have been deployed in the assemblage of race. While Ligon was a white Englishman who settled in Barbados during its rise as a lucrative slave-plantation society producing mass amounts of sugar in the mid-seventeenth century, Mary Prince was born enslaved in Bermuda, living there and in Antigua and Turks Island before moving to London in 1828 with her enslavers where she became free. Mary's narrative acts as a corrective to earlier texts such as Ligon's, which occluded Black voices while reproducing conceptions of the human as Western Man. For while Ligon was a plantation manager during his three years in Barbados, Prince was forced to perform domestic labor, work with plants and animals, and rake for salt. If Ligon's text highlights how animal energy was co-opted into white supremacy, and posits the planter class as benevolent and committed to freedom, Mary describes the racialized metabolic processes of extraction under enslavement to show whiteness and Western Humanism itself as inhumanity.

Together, these texts demonstrate how the energies of animal flesh, human labor, and material resources can *transition* into and enculture race and racism through practices of white supremacy justifying colonial domination, enslavement, and the rise of the planter class. Analyzing the biocultural processes they represent highlights how whiteness mobilized the nonhuman world as part of its inhumanity. Narratives such as Prince's are essential to challenging what Davis and Todd call the "power of Eurocentric narratives" and "re-placing them as the neutral and global perspective" within Anthropocene discourse.[21] Indeed, rarely have slave narratives been categorized as Anthropocene narratives. In order to de-universalize the whiteness of Anthropocene discourse, and emphasize its roots in settler colonialism and enslavement, my analysis of these texts demonstrates how the Anthropocene was a racializing practice that mobilized nonhuman elements in its reproduction of the human as "Western Man." Paying more attention to the biocultural in these racialized contexts underscores the material practices of race and racism beyond the human yet without reifying a biocentric understanding of race. This kind of analysis highlights how often biological, material, and cultural processes together "plasticized" humanity within practices of slavery and empire, allowing us to reject a biologically determined conception of race while admitting the very material conditions and nonhuman worlds that brought a biocentric conception of race—and the human—into being.[22]

The Biocentricity of Race and the Biocultural

While the aim of this collection is to foreground the biocultural as an analytic and demonstrate how the relationality it highlights can productively shift and nuance imperial histories, the biocultural can be usefully developed through engaging with Black studies scholars who emphasize the biocentricity of race. To thus counter the racial neutrality of *Biocultural Creatures*, here I put Frost in conversation with scholars who are similarly invested in the biocultural, but who more fully acknowledge how racial difference has been bolstered through Western scientific epistemologies. Black studies scholars have engaged biocentric ideas of race for decades, as they've shown how biological notions of race have hindered Black and Indigenous liberation, fortified structures of white supremacy, and "discipline[d] humanity into full humans, not-quite-humans, and nonhumans."[23] In her foundational essay "Unsettling the Coloniality of Being/Power/Truth/Freedom," Sylvia Wynter argues that the gradual secularization of

the human leading up to the Enlightenment bolstered the colonization of the Americas and the racial othering and dehumanization of Indigenous peoples and enslaved Africans.[24] The following rise of the natural sciences initiated an understanding of racial differences as grounded within the body and thus as biological; Blackness came to represent the irrational animalized other, while whiteness embodied rational Western Man. Zakiyyah Jackson describes this process of racial differentiation as natural science instituting "somatic difference in ever-increasingly secularized ontological terms."[25] Wynter has thus spent her career arguing for a new "genre" of the human removed from the biocentricity of Western scientific knowledge, especially as she ties this conception of the human as Western Man to the rise of climate change, describing how the West exported *homo oeconomicus* around the globe.[26] Following Wynter, Katherine McKittrick emphasizes that "a biocentric knowledge system assumes that, as a species, we have evolved differentially according to our ethnic-racial differences …. We must keep in mind that biocentricity is not the same as scientific racism or biological determinism. Scientific racism and biological determinism are ideologies that *animate* a pervasive biocentric belief system."[27] Jackson adds that "according to a biocentric logic, human cultural practices are linearly determined by groups' respective bio-ontological composition, which are vertically arranged by nature itself."[28] Wynter's emphasis that humans are both *bios* and *logos*, able to narrate stories about themselves and their biology, further emphasizes how biological processes can be utilized to reinforce cultural myths. "[T]he human is *homo narrans*," Wynter argues, "a hybrid-auto-instituting-languaging-storytelling species: bios/mythoi."[29]

Given her desire to articulate a new category of the human altogether, in a fashion similar to Frost, Wynter's body of work collectively argues that "we must notice the ways in which we, as humans, are simultaneously biological *and* cultural and *alterable beings*."[30] These attempts at refashioning how we understand the human both within and beyond racializing practices are deeply reliant on relationships with nonhuman worlds. McKittrick argues that "a preoccupation with only-the-human also privileges and centers the very human she [Wynter] (and we) seek to challenge by disregarding or marginalizing the perspectives of Man's human others and Wynter's ongoing insistence on a species perspective that is tied to our ecological worlds."[31] In other words, a biocultural understanding of Western Man as a hegemonic category emphasizes how nonhuman worlds are connected to the racializing practices that structure our very habitats. Commenting directly on Frost's work, Jackson emphasizes that Wynter raises the stakes of the biocultural "by

arguing that affect and desire are determinant of both nature and culture as their coproduction (matter and meaning) is given dynamic expression by biocentricm's raciality."[32] The biocultural is also productively extended by Alexander Weheliye's notion of racializing assemblages. For Weheliye race comes into being through "racializing assemblages," or a series of relations that posit race "not as a biological or cultural classification but as a set of sociopolitical processes of differentiation and hierarchization, which are projected onto the putatively biological human body."[33] The biocultural thus emphasizes how our environments can function as both racializing assemblages *and* energetic transitions. Both concepts emphasize how environments are unevenly shaped and shared by multiple genres of the human, and how manifold elements of such environments enculture racialized humans.

Indeed, before race became more biocentric in the nineteenth century, when differences attributed to race were seen as biologically determined, human difference was tied to climate and the environment, emerging out of beliefs that skin color, culture, and social institutions were deeply influenced by one's imbrication in their environment. Although, as Roxann Wheeler explains, skin color was not the only thing that contributed to notions of race in the eighteenth century and earlier, climate played a deep role in these ideas. "Most Britons attributed their flourishing civil and political institutions," she writes, "to the felicitous English climate."[34] Wheeler further suggests, "Britons believed that the subsequent changes in complexion and manners … sprang from natural occurrences to people as they dispersed over the earth. Variations in temperature and lifestyle, compounded by long amounts of time in the places where they settled, made the differences even more pronounced."[35] In his *Philosophy of History*, for example, Hegel claimed that the interior of Africa was "poisonous" to Europeans.[36] Zakiyyah Jackson similarly explains that eighteenth-century Scottish philosopher David Hume believed "'inferior' climates produce 'inferior nations.'"[37] In other words, early attempts at accounting for cultural, social, and physical differences suggest that early formulations of whiteness and Blackness—and all the capacities associated with these racial constructions—were influenced by one's habitats. So, on one level, climate theory posited racialized creatures as, ultimately, biocultural ones, "who develop, grow, persist, and die in an environment or habitat that is the condition for their development, growth, persistence, and death."[38]

The difference, of course, between the biocultural and climate theory is that in the latter, race is *determined* by one's environment, whereas under the framework presented in *Biocultural Creatures*, race is immaterial until it

becomes *transposed* onto or embedded into the social, cultural, and biological, and, ultimately, unevenly structures our habitats. But as Rachel Lee emphasizes, "while it is important to realize embodiments as environmentally constrained energetic transitions, it is equally important to take into account the variegated situations of embodiment (the variegated patterns of energy) that are cultured unevenly into gendered and racialized networks of labor exploitation, global capitalism, and settler-colonial (dis)advantage."[39] In other words, how did deeply uneven and hierarchical environments make some humans what Hortense Spillers calls flesh while reinforcing notions of the human as Western Man?[40] How are biocultural creatures differently racialized and organized into power relationships, and how does this affect their ability to flourish in their environments? Historicizing the biocultural and putting it in conversation with parallel traditions that more fully account for race shows how racial assemblages were deeply tethered to the material practices of the Anthropocene, and how the structures cultivating them and their energetic transitions were not always merely *incorporated*, but also *imposed*, influenced by the institutions of settler colonialism and trans-Atlantic slavery.

Eating Animals in Richard Ligon's *A True and Exact History of the Island of Barbados* (1657)

Richard Ligon's *A True and Exact History of the Island of Barbados* is one of the earliest English travel narratives of the Caribbean, and the most detailed eye-witness accounts of the early years of Barbados and the formation of plantation-slavery.[41] Published in 1657, a mere two years after the English claimed Jamaica as their own, the text describes Ligon's experiences as a plantation manager in Barbados from 1647 to 1650. Through describing the daily life of early slave-plantations, *True and Exact History* shows how deeply the English created a highly structured environment for the reproduction of the planter class.[42] Ligon's text documents early strategies of racialization, as it represents a foundational moment in English settler colonialism, the transatlantic slave trade, and the Anthropocene. Barbados was the first successful English colony in the West Indies, initiating both the style of plantation slavery and the cultural ideologies surrounding it that would be transported to other islands. As Russell Menard explains, "in the aftermath of the sugar boom Barbadians scattered throughout the British Caribbean and the plantation districts of British mainland North America, bringing with them ideas, institutions, and ideologies first developed

in Barbados during the sugar boom. Thus Barbados was a 'cultural hearth' for the British colonies in America."[43] As such, its early culture elucidates how the cultural logics of whiteness emerged in tandem with the growth of the British empire and trans-Atlantic slavery.

While there are many topics scholars could focus on in this rich and unsettling text, I'm interested in how much Ligon writes about all the different animals used for food and thus for energy, and how this metabolic consumption of animals assembled racial distinctions within the highly structured environments of slave plantations. Considering that both the English and Africans were outsiders to Barbados, Ligon's text demonstrates how they were encultured in starkly different ways. This enculturation was structured through a racist system that made itself work, in part, by controlling the kinds of sustenance and energy available to different groups of people on the island. For the English, Barbados was a source of excess and plentitude, which manifested in their feasts; for enslaved Africans, Barbados was utter depravation, an extraction of their energy. Neither the English nor Africans were Indigenous to the Caribbean, and the ways some were forced into it or controlled it demonstrates how enculturation is itself racialization, and how whiteness and its economic forces can structure an environment "that produces regimented, institutionalized, and militarized conceptions of hierarchized 'human' difference."[44] In this context, reading the consumption of animals as "energy-in-transition" shows how animal flesh was made to work in the service of white supremacy and anti-Blackness. Here, race does not get imposed on the biological or material but transitions into it from the energy of animals under the constraints of enslavement. These feats suggest a co-consumption of the animal and the human as a way to racialize and dehumanize, to show both as consumable, and perform a classed and white masculinity that attempts to mask itself as invisible through permeating multiple aspects of people's lives.

In general, the West Indies was a symbol of excess, not only through the collection of resources it produced, such as tobacco and sugar, and the wealth it created for the enslavers and planters, but also through the excess of murder and displays of gruesome torture of the enslaved, death by disease, as well as the "exotic" beauty, sun, and extreme weather. This excess is mirrored in Ligon's lavish descriptions of the planters' legendary feasts, full of meat and fish. In a section titled "Meat of all kinds," Ligon spends eight full pages describing the food and animals of the island.[45] He discusses the meat from land animals, fish, how this food is cooked and served, and which of the plantation owners are "the best seated for a Feast," as he writes, "now you see the provision the Island

affords, give me leave to show you what feasts they can (when they will) make for their friends, upon their Plantations."[46] Thus follows a page-long list of not only Colonel Walrond's plantation feasts by the sea, but also those of Colonel James Drax, who has an "inland plantation."[47] At a feast given by Drax, at the time the richest planter in the colony and who is now remembered for modeling plantation slavery in the Caribbean, Ligon details fourteen different beef dishes, a number even more striking considering that Ligon writes earlier that cattle are rarely killed for food, given their high cost and the need for their labor. Only planters such as Drax, "who lives like a prince … may kill now and then one."[48] Next, in the same feast comes pork, chicken, goat, mutton, veal, turkeys, hens, ducks, doves, rabbits, oysters, caviar and anchovies, and fruits, desserts, and drinks. "[A]nd with all this," Ligon tells us, "you shall find as cheerful a look, and as hearty a welcome, as any man can give his best friends."[49] While Walrond doesn't have that "infinite store of the provisions Colonel Drax abounds in," his tables "are supplied with all these sorts of fish I shall name, to wit, *Mullets, Mackerels, Parrot fish, Snappers*, red and gray, *Cavallos, Terbums, Crabs, Lobsters*, and *Cony fish*, with divers sorts more, for which we have no names."[50]

Through such lengthy descriptions, racial, class, and national categories emerge through what people eat and how they eat it. For Ligon connects this gluttony with English liberty, explicitly aligning animal consumption with English ideals. He notes that with a plantation by the sea, Colonel Walrond, "being a Gentleman, that had been bred with much freedom, liberty, and plenty, in *England*, could not set his mind so earnestly upon his profit, as to forget his accustomed lawful pleasures, but would have his Table well furnished, with all sorts of good meat the Land and Sea afforded; and as freely bid his friends welcome to it."[51] Ligon's direct association of this plentitude with friendship, "freedom, liberty, and plenty," suggests an ideal white masculinity seen as beneficent. For such feasts are not only classed and nationalized, but in the context of plantation slavery, directly tied to an emerging structure of whiteness. By prefacing these tables of excess with notions of nourishment and companionability, Ligon represents the settler colonist and enslaver as driven by hospitality, not profit. Indeed, later in the text Ligon will write that the planters are "those of the best sort of Gentlemen call Excellent; as, Civilly in treating of Strangers," and "So frank, so loving, and so good natured were these Gentlemen one to another; and to express their affections yet higher, they had particular names one to another, as Neighbor, Friend, Brother, Sister: So that I perceived nothing wanting, that might make up a firm and lasting friendship amongst them."[52] This kind of hospitality solidified a white planter community grounded

in ideals of freedom, and Ligon presents it to an English audience as propaganda for colonial settlement and the system of slavery run by "benevolent" white men.

Despite the planter class's claims to hospitality, these feasts were not for the indentured servants and enslaved people populating the island and producing the profits that supplied such gluttony. While there was a deep class hierarchy, with white indentured servants also prohibited from sharing the table with the planter class, there was also a strong racial hierarchy, delineated through food and the representation of diet. Noting the unappetizing nature of "Pickled Turtle," for example, Ligon explains that "this kind of food, is only for servants; sometimes the *Negroes* get a little, but seldom the one or the other did eat any bone meat, at our first coming hither."[53] He continues:

> The *Negroes* were allowed each man two Mackerels a week, and every woman one; which were given out to them on *Saturday* in the evening, after they had their allowance of Plantains, which was every one a large bunch, or two little ones, to serve them for a week's provision; and if any cattle died by mischance, or by any disease: the servants eat the bodies, and the *Negroes* the skins, head and entrails which was divided amongst them by the Overseers; or if any horse, then the whole bodies of them were distributed amongst the *Negroes*, and that they thought a high feast, with which never poor souls were more contented.[54]

By suggesting that enslaved people thought diseased meat "a high feast," Ligon makes a mockery of their pathetic meals, contrasting it with the excessive feasts of the planters. Ligon *almost* has sympathy for the enslaved in this moment—"poor souls"—yet not enough. For lest this poor diet shock the reader, Ligon suggests that the enslaved are quite content with such limited amounts of food:

> When they had Plantains enough to serve them, they were heard no more to complain; for "tis a food they take great delight in … "tis a lovely sight to see a hundred handsome *Negroes*, men and women, with every one a grass-green bunch of these fruits on their heads, all coming in a train one after another, the black and green so well becoming one another …. They are a happy people, whom so little contents.[55]

Finally, unlike the elaborate ways the plantation owners cook and dress their food, the enslaved simply boil their plantains, "making it into balls, and so they eat it."[56]

Placed next to the long descriptions of the plantation owners' feasts, the meagre meals of the enslaved are jarring and unsettling. The fact that these women and men were working mostly in sugar fields and mills—some of the most dangerous and difficult work the enslaved were forced to do—on such few

calories and little protein, shows how their diet was another way to keep them subjected. Richard Dunn suggests that the enslaved "was underfed to break his resistance," highlighting how the lack of food-energy allotted to enslaved people was a strategic move to not only keep their energy level low enough to only work, but also to solidify racial and class distinctions.[57] Ligon's emphasis on the aesthetics of skin color and nature, and the claim that enslaved people are happy with a minimal, plantain-centered diet, not only romanticizes and aestheticizes the poor diet of enslaved people, but *naturalizes* it in a move that highlights how deeply, following Wynter, humans are able to narrate stories about their biology and attempt to instill these stories as truth. Indeed, Ligon writes toward the end of his narrative that the plantains are the only food the enslaved Africans live upon.[58] By suggesting that there is something natural in Africans eating mainly plantains, that it is just their normal diet, Ligon rationalizes the violence of their limited foodstuffs and posits them in direct contrast to white Englishmen who are represented as *needing* these protein-rich feasts to reproduce ideals of freedom and hospitality. If such ideals are associated with the plenteousness of the table and an abundance of animal protein, its negation marks a kind of enslavability. Eating too much meat showcases the gluttony of white supremacy, and the way it co-opts the energy of others, both human and animal. The inability to or supposed lack of desire for eating meat delineates Blackness and helps structure the system of white supremacy that limits and legitimizes the amount of energy the enslaved consume, directing Black energy to work for the profits of the enslavers and the planter class they constitute.

Ligon's feasts, I suggest, demonstrate how an upper-class white energy uses animal energy to assemble a version of whiteness that is beneficent at the same time it is control, dominating animals on land and sea, buying and selling men and women, consuming both and making them work to produce profits for the British nation. In Ligon's text, racial distinctions are seen to *materialize* through a hospitable white gluttony, and a seemingly naturalized Black vegetarianism. In this context of early slave-plantation societies, white Western Man—and his associated ideals—emerges through the consumption of meat and its transition into metabolic energy. Meat-eating transitions into a physical, structural, and ideologically driven white energy that keeps up the system of plantation slavery at the same time it (paradoxically for whiteness) wreaks havoc upon both white and Black bodies. In this system, racial distinctions emerge out of the biological and material, transitioning into it from the energy of animals. This energy feeds the racialized structures of enslavement, contributing to "antiblackness's auto-institution and stable replication as a system," showing how

racialized biocultural creatures exist differently in the same habitat.[59] Ultimately, Ligon represents how the cultures of the white planter class work their way into the body and *make* racial differences simultaneously biological and cultural. As Frost notes, "biocultural habitats are not found but rather made and remade," and Ligon records how slave-plantation societies were constrained to assemble racial distinctions on numerous levels.[60] Such an understanding highlights the different ways energy was harnessed and controlled in the Anthropocene, and how such energy was both multiple and racialized.

In her narrative almost 200 years later, Mary Prince will challenge how these racialized flows of energy were directed and controlled in Caribbean slave societies, as she demonstrates how her energy and that of other enslaved people were part of a metabolic process feeding British consumption. Mary's perspective showcases how the structures of the Anthropocene worked unevenly, and how the extraction of energy was also a way of directing racialized bodies and controlling the environments in which they lived. If Ligon's text highlights how animal energy was co-opted into white supremacy, Mary Prince emphasizes the brutal metabolic processes of extraction, and how they are orchestrated by an inhuman whiteness that works through the biocultural.

Salt and the Cruelty of Extraction in *The History of Mary Prince* (1831)

When she arrived in England in 1828, Mary was free according to the law, but only as long as she stayed abroad. Although she only knew the enslavers she arrived with, Mary left them and set out to find a way to return to Antigua and join her husband as a free woman. She was directed to the London Anti-Slavery Society, where she met Thomas Pringle and Susanna Strickland. She became Pringle's housekeeper—finally being paid for her labor—and narrated her story to Strickland. *The History of Mary Prince* was published in 1831 as part of the abolition movement and faced two different libel lawsuits, one on behalf of Pringle, another on behalf of Mary's former enslaver John Wood.[61] As one of the few narratives by an enslaved Black woman from the West Indies, *The History of Mary Prince* was a much-needed corrective to narratives like Ligon's. While Mary's time in Bermuda and Antigua performing domestic labor is an important part of her story, less attention has been given to the five years she spent on Turks Island working in the salt ponds.[62] Through her detailed description of the biocultural, Mary critiques the structures of whiteness that

mobilize the nonhuman world as part of its racializing and imperial logics of inhumanity, refusing the forced merging of human and natural histories, the human and the inhuman.

While the dates are not conclusive, most scholars claim that Mary probably arrived in Turks Island, an archipelago southeast of the Bahamas that was mostly used for mining salt, around 1805, and was enslaved there until about 1810, when she returned to Bermuda with her enslaver, "Mr. D." As Nigel Sadler explains, beginning in the 1670s, Bermudans began to collect salt from the many salt ponds on the island, which was taken over by the British in 1764. According to 1767 salt pond regulations, inhabitants were allowed up to six enslaved people, who could not work or sell salt for their own profit.[63] Like Ligon's Barbados, Turks Island was a white supremacist environment in which the planter class flourished at the expense of enslaved people, who were nearly eaten alive by the same environment. While Mary's perspective emphasizes the grueling nature of this work, white writers erased the violence of extractive labor. In his *Tour through the British West Indies, in the Years 1802 and 1803*, for example, Daniel McKinnen explains:

> Although the inhabitants of the other islands … have not hitherto much attended to the great natural advantage of their salt ponds, little doubt seems at present entertained of their becoming a source of considerable profit, from the quantity of salt produced, and *the facility with which it may be obtained*. For early in the year, when the power of the sun begins to increase, accompanied with dry weather, the salt every where in these natural ponds begins to crystallize and subside in solid cakes. *It remains only to break the crystals*, and rake the salt on shore; and *by this easy mode* a single labourer may rake from forty to sixty bushels of salt in a day.[64]

From the white, British perspective, gathering salt is easy, a way to stuff pockets with profit. Both the erasure of slavery and McKinnen's characterization of salt-raking as easy labor suggest that he did not see the enslaved as human and neglected to acknowledge the pain of their labor. For he certainly would have witnessed them working in the ponds. Yet McKinnen makes only one slight reference to slavery, noting merely that "the resident inhabitants are few in number. Before the American war they amounted to about eighteen white heads of families and forty slaves; since which period there probably has been little increase."[65]

As Mary vividly describes it, both the environment and the salt break apart her body, showing how extraction was a ravenous process which fed on the energy of the enslaved to provide sustenance for both whiteness and white

bodies. Indeed, the working conditions were atrocious, and if there is a merging of the history of the enslaved human and the colonized environment, Mary describes it well, in horrific detail. She explains that the process of raking salt was never-ending; they worked from before sunrise (4 in the morning) until "dark at night."[66] Both the sun and the salt attack Mary and the other enslaved laborers, as she describes "the sun flaming upon our heads like fire, and raising salt blisters in those parts which were not completely covered. Our feet and legs, from standing in the salt water for so many hours, soon became full of dreadful boils, which eat down in some cases to the very bone."[67] Salt is given to the enslaved while they are sick—"when we were ill," Mary writes, "the only medicine given to us was a great bowl of hot salt water, with salt mixed with it, which made us very sick"—and used as punishment: Mr. D would whip Daniel "till his skin was quite red and raw," then "call for a bucket of salt, and fling upon the raw flesh till the man writhed on the ground like a worm."[68] The salt made Daniel's wounds so bad they never healed, breeding maggots. As Mary describes it, salt (forcibly) ingests the bodies of the enslaved, while they in turn (forcibly) ingest the salt. Through her detailed descriptions, Mary highlights the violence involved in extraction and the harm this caused the enslaved as their porous bodies merged with the matter they were forced to extract. Indeed, while McKinnen represented Turks Island as an advantageous place for white settlers, for enslaved people, according to Sadler, the island had one of the highest death rates, and the salt raking was so brutal that it often resulted in partial or total blindness, as eventually happened to Mary.

Significantly, this section of Mary's narrative emphasizes eating and ingestion, which highlights the cannibalistic aspects of slavery and capitalism, showing both as an energetic, metabolic process that drives and feeds the energy of white supremacy, transitioning into profits for the planter class and the British nation at large.[69] It also contrasts with earlier narratives of slavery, such as Ligon's, which represent the enslaved as needing few calories and little protein. Mary uses the word "eat" to describe how the salt creates boils on their legs and feet, she calls Mr. D a "butcher," describes how they wash the "pickle" from their limbs, and for the first time in her narrative mentions what they ate, how they ate it, and when they could eat. She describes their intense hunger, and narrates the story of Ben, who was badly beaten for stealing rice. This emphasis on eating and ingestion emphasizes both slavery *and* extraction as a cannibalistic process that feeds on the energy of enslaved people. They ingest the salt, the salt ingests them, British consumers ingest the salt and its profits. The salt brought back to England, alongside all the other resources extracted by the enslaved—cotton,

sugar, rice, tobacco, timber, etc.—transitioned into profits for the British nation and fueled the industrial revolution. And salt, of course, is used for food in numerous ways: to preserve food, flavor food, provide income for people to buy food, and, as even more evidence for the cannibalism of extraction, to provide food for the enslaved, as salted fish was a staple of their diet.[70] Cannibalism, according to Hartman, "provided an allegory for usurping and consuming life" within the institution of slavery.[71] "If the wage laborer," she continues, quoting Marx, "was 'someone who has brought his own hide to market and now has nothing to expect but a tanning,' then the slave was the prey hunted and the flesh eaten by the vampire of merchant capital."[72] Mary's description of the salt fields emphasizes this connection between the consumption of life and its transition into capital.

If Mary's descriptions of her time on Turks Island include the language of eating and ingestion, they also emphasize how metabolic processes speed up with the cruelty of extraction. In the salt mines, Mary explains, "my tasks were never ended. Sick or well, it was work—work—work!", and "we had no sleep—no rest—but were forced to work as fast as we could, and go on again all next day the same as usual. Work—work—work—."[73] The repetition makes the time seem never ending, showing how enslaved people were forced to perform machine-like labor. As Jobson explains, "the plantation is the origin ground of machine fetishism, in which the surplus value generated by machinelike human labor came to be regarded as the exclusive property of planter-capitalists."[74] This machine-like repetition is perhaps why, as scholars have dated it, Mary worked on Turks Island for about five years, yet she says, "I think it was about ten years I had worked in the salt ponds at Turks Island."[75] Given this grueling, never-ending work, it is no wonder Mary mentioned food so much: she and the enslaved were burning more calories than they could consume, giving all their energy to the salt they were raking. Through emphasizing the biocultural, Mary shows how the materialist practices of white supremacist cultures becomes tethered to living and racialized bodies; she shows the body's porosity, but to reframe how deeply bodies are affected by racialized forms of enculturation, and how this energy can transition into profits for the planter class and the British nation.

Importantly, Mary's detailed descriptions of working in the salt fields, and her consistent language of eating and ingestion critique the cannibalistic nature of extraction and the metabolic processes of labor that racialize and dehumanize. By emphasizing Black aliveness and livingness in contrast to white inhumanity, Mary critiques the imperial structures surrounding her. For Kevin Quashie, Black aliveness signifies a condition of knowing and being beyond the confines of anti-Blackness, whereas Tiffany King conceptualizes Black livingness as a

fugitivity that disrupts whiteness, and as a mode of conceptualizing Blackness beyond anti-Black violence.[76] In her description of the enslavers, Prince highlights the inhumanity they exemplify. She aligns the enslavers with stones and hardness, while she and other enslaved persons are seen as human creatures in pain and suffering, rebelling against white supremacy in whatever ways they can. In describing how he beat the humans he enslaved, Mary writes,

> Mr D—was usually quite calm. He would stand by and give orders for a slave to be cruelly whipped, and assist in the punishment, without moving a muscle of his face; walking about and taking snuff with the greatest composure. Nothing could touch his hard heart—neither sighs, nor tears, nor prayers, nor streaming blood; he was deaf to our cries, and careless of our sufferings,

and explains that his son "had no heart."[77] The enslavers' lack of emotion contrasts with Mary's own emotional appeal on feeling and knowing: "I have been a slave—I have felt what a slave feels."[78] Indeed, this section is one of the most emotional parts of her narrative: "Cruel, horrible place!" she exclaims, "Oh the horrors of slavery!—how the thought of it pains my heart."[79] Mary's emphasis on her own heart—and her call to the hearts of her readers—emphasizes her own aliveness while contrasting it with that of Mr. D and his son, who have no hearts.[80]

For this forced merging of the enslaved with the materials they extract does not reduce them to matter as such, as it shows the assembled nature of the human as Western Man. If Yusoff argues that within the Black Anthropocene the racialization of matter dehumanizes the enslaved, Mary challenges such dehumanization by narrating whiteness and the institution of slavery as inhumanity. That is, while the processes of extraction *attempt to* remove the humanity of the enslaved, this does not reduce them to the inhuman as such. Rather, it exposes the very process—and those who take part in it—as inhuman. Mary's detailed descriptions of the extraction process critiques the white, Western planter valorized in Ligon's text, as *this* is the figure lacking humanity, benevolence, and beliefs in freedom. Through contrasting Black life with the inhuman and extractive processes of white Western humanism, leaving the home of her enslavers, seeking out a new life, and narrating the story of her enslavement, Mary redirects her energy toward alternate conceptions of the human and Black life.

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Through building biocultural histories, we can see how the Anthropocene's imperial and racializing logics encultured people, animals, and the environment

in starkly different ways. For racialization is a cultural process, but it's one that is deeply tied to bodies, human and animal, directed by and through flows of energy, and affected by one's imbrication in their environment, forced and otherwise. Within the context of the early cultures of the Anthropocene, racialized flows of energy worked to delimit competing notions of the human, both reifying and challenging the biocentricity of the Anthropocene's racializing practices. While Ligon's narrative demonstrates how whiteness reified the planter class to restrict the energy of enslaved people and shape how racialized subjects were perceived by the English public, Mary Prince shows alternate conceptions of Black life while critiquing the inhumanity of whiteness and its extractive logic. If, following Chakrabarty, the Anthropocene is a moment in which humans finally understand themselves as a species, we would do well to acknowledge this is a species that has been racialized through structures of capital, labor, and flows of energy. Although the Anthropocene is yet another aspect of slavery's afterlife, it is not the only narrative of what it means to be human, and what that human may look like in the future.[81]

Notes

1 Historians suggest there were up to sixty forts and factories in Ghana alone. John Kwadwo Osei-Tutu, and Victoria Ellen Smith, eds., *Shadows of Empire in West Africa: New Perspectives on European Fortifications* (New York: Palgrave, 2018), 2. Technically there was a difference between these types of structures; K. G. Davis explains that forts were heavily fortified permanent settlements, whereas factories were small huts, often staffed by only a few men. K. G. Davis, *The Royal African Company* (London, New York, Toronto: Longmans, Green and Co., 1957), 246.

2 Saidiya Hartman, *Lose Your Mother* (New York: Farrar, Straus and Giroux, 2007), 111.

3 Christophe Bonneuil and Jean-Baptiste Fressoz similarly note that "the centrality of transatlantic trade in the industrial revolution turned on that of the African slaves that formed the fundamental pivot of the world-system then dominated by Great Britain," and "in the late eighteenth century, the slave trade and the plantation system thus formed the foundation of a very hierarchical world-system, with economic satellites entirely organized for the economic needs of the British power." Christophe Bonneuil, and Jean-Baptiste Fressoz, *The Shock of the Anthropocene* (London and New York: Verso, 2017), 231, 232.

4 See Sidney Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York: Penguin, 1986); Joshua Eichen, "Cheapness and (Labor-)power: The Role of Early Modern Brazilian Sugar Plantations in the Racializing Capitalocene." *EPD: Society and Space* 38, no. 1 (2020): 35–52.

5 For a discussion of how cotton from slave-plantations in the United States came to English factories as a racializing force, see Anna Arabindan-Kesson, *Black Bodies, White Gold: Art, Cotton, and Commerce in the Atlantic World* (Durham: Duke University Press, 2021).

6 Eric Williams, *Capitalism and Slavery* (Raleigh: University of North Carolina Press, 1994), 103.

7 Will Steffen, et al., "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 616.

8 Jason Moore's claim that "Capitalocene" more accurately describes this process is useful to consider in this regard. Jason Moore, *Capitalism and the Web of Life: Energy and the Accumulation of Capital* (London and New York: Verso, 2015).

9 Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (London and New York: Verso, 2016), 6.

10 Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018), xii.

11 Dipesh Chakrabarty, "The Climate of History: Four Theses." *Critical Inquiry* 35, no. 2 (Winter 2009): 201.

12 Andrew Baldwin and Bruce Erickson, "Introduction: Whiteness, Coloniality, and the Anthropocene." *EPD: Society and Space* 38, no. 1 (2020): 6.

13 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Durham: Duke University Press, 2016), 4.

14 Frost, *Biocultural Creatures,* 28.

15 Ibid., 104–5.

16 Ryan Cecil Jobson, "Dead Labor: On Racial Capital and Fossil Capital," in Destin Jenkins and Justin Leroy (eds.), *Histories of Racial Capitalism* (New York: Columbia University Press, 2021), 219. For a discussion of how the energy of enslaved labor was harnessed to fuel the industrial revolution, see also Nicholas Fiori, "Plantation Energy: From Slave Labor to Machine Discipline." *American Quarterly* 72, no. 3 (2020): 559–79.

17 Karl Marx, *Capital Volume I*, trans. Ben Fowkes (New York: Penguin, 1990), 284.

18 John Bellamy Foster, *Marx's Ecology: Materialism and Nature* (Monthly Review, 2000), 157.

19 Foster, *Marx's Ecology,* 158.

20 Moore, *Capitalism and the Web of Life,* 84, 82.

21 Heather Davis and Zoe Todd, "On the Importance of a Date, or Decolonizing the Anthropocene." *ACME: An International Journal for Critical Geographies* 16, no. 4 (2017): 763.

22 In *Becoming Human*, Zakiyyah Iman Jackson "reinterpret[s] Enlightenment thought not as black 'exclusion' or 'denied humanity' but rather as the violent imposition and appropriation—inclusion and recognition—of black(ened) humanity in the interest of plasticizing that very humanity." See Zakiyyah Iman Jackson, *Becoming Human: Matter and Meaning in an Antiblack World* (New York: NYU Press, 2020), 3.

23 Alexander Weheliye, *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Durham: Duke University Press, 2014), 3.
24 Sylvia Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument." *CR: The New Centennial Review*, 3, no. 3 (Fall 2003): 257–337.
25 Jackson, *Becoming Human,* 25.
26 See Sylvia Wynter and Katherine McKittrick, "Unparalleled Catastrophe for our Species? Or, to Give Humanness a Different Future: Conversations," in Katherine McKittrick (ed.), *Sylvia Wynter: On Being Human as Praxis* (Durham: Duke University Press, 2015), 9–89.
27 Katherine McKittrick, *Dear Science and Other Stories* (Durham: Duke University Press, 2021), 126.
28 Jackson, *Becoming Human,* 42.
29 Wynter and McKittrick "Unparalleled," 25.
30 McKittrick, *Dear Science*, 137.
31 Ibid., 42.
32 Jackson, *Becoming Human,* 42.
33 Weheliye, *Habeas Viscus,* 5.
34 Roxann Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth-Century British Culture* (Philadelphia: University of Pennsylvania Press, 2000), 5.
35 Ibid., 15.
36 G.W.F. Hegel, "Africa," in Barbara Harlow and Mia Carter (eds.), *Archives of Empire* vol. II, *The Scramble for Africa* (Duke University Press, 2004), 22.
37 Jackson, *Becoming Human,* 23.
38 Frost, *Biocultural Creatures,* 4. For a discussion of how climate theory shared similarities with humoralism, "the doctrine that the body is composed of elementary fluids (humors) whose balance was altered by changes in the surrounding environments," and contemporary notions of human plasticity, see Maurizio Meloni, *Impressionable Biologies: From the Archaeology of Plasticity to the Sociology of Epigenetics* (New York: Routledge, 2019), 14.
39 Rachel Lee, "Are Biocultural Creatures Posthistorical Agents?" *Theory & Event*, 21, no. 2 (2018): 525.
40 Hortense Spillers, "Mama's Baby, Papa's Maybe: An American Grammar Book." *Diacritics*, 17, no. 2 (Summer 1987): 64–81.
41 Richard Ligon, *A True and Exact History of the Island of Barbados*, ed. Karen Kupperman (Indianapolis: Hackett, 2011).
42 Karen Kupperman notes, "In 1650, when Ligon departed, there were almost 13,000 enslaved people, and in 1655, Barbados had 20,000 enslaved people." See Karen Kupperman, "Introduction," in Karen Kupperman (ed.), *A True and Exact History of the Island of Barbados* (Hackett, 2011), 21.

43 Russell Menard, *Sweet Negotiations: Sugar, Slavery, and Plantation Agriculture in Early Barbados* (Charlottesville: University of Virginia Press, 2006), 6.
44 Weheliye, *Habeas Viscus*, 3.
45 Ligon, *A True and Exact History of the Island of Barbados,* 81–8.
46 Ibid., 88, 86.
47 Ibid., 86.
48 Ibid., 82.
49 Ibid., 88.
50 Ibid., 88.
51 Ibid., 83–4.
52 Ibid., 110.
53 Ibid., 86.
54 Ibid., 86.
55 Ibid., 93–4.
56 Ibid., 94.
57 Richard Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713*, Second edition (Chapel Hill: University of North Carolina Press, 2000), 249.
58 Ligon, *A True and Exact History of the Island of Barbados,* 142.
59 Jackson, *Becoming Human,* 5.
60 Frost, *Biocultural Creatures,* 157.
61 Mary Prince, *The History of Mary Prince*, ed. Sara Salih (London: Penguin, 2004).
62 A notable exception is Matthew Rowney, "Preserver and Destroyer: Salt in *The History of Mary Prince*." *European Romantic Review* 29, no. 3 (2018): 357–63.
63 Nigel Sadler, *Slave History in the Turks and Caicos Islands* (Cockburn Town: Turks and Caicos National Museum, 2003). See also Cynthia Kennedy, "Salt, Slaves, the Turks and Caicos Islands, and British Colonialism." *The Historian*, 69, no. 2 (2007): 215–30.
64 Daniel McKinnen, *A Tour through the British West Indies, in the Years 1802 and 1803, Giving a Particular Account of the Bahama Islands* (London: J. White, 1804), 124 (emphasis mine).
65 Ibid., 125.
66 Prince, *The History of Mary Prince,* 19.
67 Ibid., 19.
68 Ibid., 20, 21.
69 The cannibalism of extraction bridges the middle passage and the colonies. As Olaudah Equiano and others have remarked, many Africans feared white men were going to eat them both on the slave ship and in the colonies. See Olaudah Equiano, *The Interesting Narrative*, ed. Vincent Carretta (New York: Penguin, 2003), 55, 60. Those in the colonies were indeed "eaten" by the processes of capital and extraction

that produced the Anthropocene. If "ingestion exemplified the merchant's accumulation of capital and the slave's dispossession," this process is only made more literal in places like the salt mines of Turks Island. See Hartman, *Lose Your Mother,* 114.

70 Eric Williams explains, "Fish was an important item of the diet of the slaves on the plantations, and the English herring trade found its chief market in the sugar plantations. The Newfoundland fishery depended to a considerable extent on the annual export of dried fish to the West Indies, the refuse or 'poor John' fish, 'fit for no other consumption.'" See Williams, *Capitalism and Slavery,* 59.

71 Hartman, *Lose Your Mother,* 114.

72 Prince, *The History of Mary Prince,* 114.

73 Ibid., 20, 21.

74 Jobson, "Dead Labor," 226.

75 Prince, *The History of Mary Prince,* 22.

76 Kevin Quashie, *Black Aliveness, or a Poetics of Being* (Durham: Duke University Press, 2021), 16–17; Tiffany King *The Black Shoals: Offshore Formations of Black and Native Studies* (Durham: Duke University Press, 2019).

77 Prince, *The History of Mary Prince,* 20, 22.

78 Ibid., 21.

79 Ibid., 21.

80 Samantha Pinto has a similar argument, as she suggests that Mary's description of pain "posits Black feeling in and for its constitutive difference from whiteness and forcefully argues for Black skin's centrality in knowledge production." See Samantha Pinto, "On the Skin: Mary Prince and the Narration of Black Feeling in the Early Nineteenth Century." *Early American Literature* 56, no. 2 (2001): 500.

81 Saidiya Hartman describes the afterlife of slavery as the fact "black lives are still imperiled and devalued by a racial calculus and a political arithmetic that were entrenched centuries ago" and includes elements such as "skewed life chances, limited access to health and education, premature death, incarceration, and impoverishment." Hartman, *Lose Your Mother,* 6. For Christina Sharpe, this means living in the wake of slavery: "to be *in* the wake is to occupy and to be occupied by the continuous and changing present of slavery's as yet unresolved unfolding." See Christina Sharpe, *In the Wake: On Blackness and Being* (Durham: Duke University Press, 2016), 13–14.

3

A Victorian Parliament of Animals; or, the Biocultural as Imperial Political Form

Antoinette Burton

In a summer 2022 editorial for *The New York Times* on the eve of Queen Elizabeth's Platinum Jubilee celebrations, historian Caroline Elkins reproduced this image (among others) to illustrate the tentacled reach of British imperium in the late nineteenth century (Figure 1).

Titled "The Devilfish in Egyptian Waters" (Figure 1), the cartoon is from an American periodical (1882) and pictures John Bull fastening onto territorial possessions across the globe during an especially intense period of British imperial ambition. Elkins is not the first historian of empire to use this image as a way of evoking the multi-sited power grab that characterized British aspirations for global hegemony in the Victorian period.[1] Anticipating in graphic terms what would long endure as the hub-and-spoke narrative of empire building, the cartoon conjured the Whitehall-to-the-world image that British policymakers themselves projected as key to their determination that empire would be not just a global power but an interconnected world system as well.

By the time this cartoon appeared at the start of the 1880s, the octopus was evolving into a recognizable imperial political form.[2] It was well on its way, in other words, to becoming a familiar mode of representing the operations of imperial power—of visualizing, in terms available to a wide variety of publics, both the complexity of empire as a project and its fundamentally predatory nature. Yet unremarked upon by historians who have used this cartoon image as an interpretive device for arguments about how imperialism worked is the fact that the octopus is a marine animal and that the context for the "devilfish" is the ocean world: an imperial-juridical sphere which Renisa Mawani suggests is critical for understanding all facets of biopolitical governance.[3] For despite the fact that we are living in an extended moment of climate variation

Figure 1 "The Devilfish in Egyptian Waters." *Frank Leslie's Illustrated Newspaper*. July 22, 1882, p. 352.

and global environmental convulsion, British empire history as a field retains a rather remarkable preoccupation with the distinctively human subject and its terrestrial power. The aspirationally white human subject committed to territorial conquest, in other words.

I speak here not of histories of the impact of climate on environmental change across British imperial possessions. Those histories have long recognized that the false human-nature dichotomy is an inheritance of western imperialism itself and have worked to historicize colonizers' tendency to underestimate the "independent historical influence" of the local biomes they trespassed.[4] I refer rather to general histories of empire, both established and recent, which proceed with little or no interest in the ecological contexts of empire-building because they either assume that human agency is the driver of historical change or they

think of imperial history writ large as the consequence of human intention, realized and unrealized.[5] This, despite the gauntlet thrown down by Harriet Ritvo's now landmark social history of Britain's nation-imperial psyche, *The Animal Estate*, whose subtitle was "the English and Other Creatures" almost forty years ago.[6]

Debates about the Anthropocene, whether as a term or as the basis for new epistemologies, have of course brought a wide variety of scholars into interdisciplinary dialogue over the last thirty years, with the proportional role of empire emerging as a matter of some contest. As Indigenous scholars like Zoe Todd have argued, the Anthropocene maps onto "the time of colonization" and should be dated accordingly.[7] But even when they acknowledge the ecological stakes of imperialism, British empire historians routinely privilege the doings of humans in an epoch defined as the geological age during which human agency has had the most impact on the biosphere without taking this temporality into account. Nor have they tried to complicate their narratives through attention to how nonhuman worlds shaped the very operation of empire *qua* empire. Arguably, of course, whether in fiction or in history, "the human plots are more insistent and most apparent."[8] Meanwhile, it's hard to disregard the unexamined methodological imperialism at work in British imperial history, with research design and narrative arcs together placing the human subject—and most often the white colonizing human subject—at the center of stories that have been conceived of and continue to be written in the deepening shadow of planetary crisis. This, with no apparent awareness of or concern about how its colonial antecedents shape the very terms of those stories.[9]

Histories that run counter to the one-directional colonial conquest script are available, in part through the work of historians of empire who aim to account for how Indigenous and colonized people resisted the imposition of imperial hegemony in its many forms, including via the appropriation of land and the extraction of natural resources. Yet these approaches, often under the aegis of decolonizing practice, have typically centered on human agency as well (my own included).[10] To be sure, scholars knowledgeable about Indigenous traditions and histories are able to detail the role of local cosmologies and land-, sea-, or sky-based community practices in their histories of struggle over the reach and power of empire.[11] They have also "long emphasized the wills and socially constitutive roles of other-than-human-beings."[12] But these are not ways of doing British empire history in the standard sense. In fact, those who write histories attuned to the nonhuman world may not identify with or wish to call themselves imperial historians at all.[13] One characteristic that both the old and

the new imperial history, conventionally understood, may be said to have in common, then, is a failure to reckon earnestly with the constitutive role that the nonhuman world has played in shaping imperial aspirations and outcomes. This is perhaps because *human species supremacy*—itself a placeholder for white western supremacy—as a rationale for empire is so naturalized as to be taken for granted by many if not most historians of the British colonizing project. And yet as we shall see, images like the imperial devilfish were common property of the Victorian visual economy, in cartoon venues and well beyond. Evidence of the ways that imperial power and resistance to it were conceived of through an admixture of human and nonhuman idioms was to be found at the very heart of imperial political culture, whether high or low. And, I want to suggest, that means we must understand the imperial political sphere in part as an effect of biocultural histories in the making.[14]

Here I draw heavily on Samantha Frost's 2016 book, *Biocultural Creatures: Toward a New Theory of the Human*. I repurpose her definition of the biocultural as a description of the condition, the medium, in which all creatures "develop, grow, persist and die" expressly for use in the historical context of modern British imperial animal politics. As Frost puts it, the concept of the biocultural "encapsulates the mutual constitution of body and environment, of biology and habitat that has been so central to the challenge to the category of the human."[15]

As we note in the introduction, this is a significant theoretical and methodological challenge because it requires a reimagining of empire not as antecedent to or as a driver biocultural processes, but as a consequence of them. By extension, it's these processes that make and remake the parameters of empire. To countenance imperialism and its biocultural histories means that we must apprehend the line between human and nonhuman animal as untenable, as porous, and as actively composing and recomposing its objects of inquiry—empire itself first and foremost.

Framing empire as an effect of the biocultural shifts the emphasis from the hubristic fiction of human centrality toward an ontological grasp of humans' mutuality with respect to the habitats they dwell in and through—specifically when it comes to the subject of the nonhuman animal, representations of which continuously figure and refigure Victorian Britons as biocultural creatures in the imperial public sphere.[16] Again, such conditions of mutuality and exchange are recognizable to students of Indigenous and colonized communities, who understand how biotic processes have functioned, and continue to serve, as palimpsests for apprehending power and hierarchy in the wake of dispossession and colonial/postcolonial extraction.[17] Conversely, attention to evidence of

these kinds of processes is minor in mainstream imperial narratives, which scarcely acknowledge history from below let alone countenance the multi-form, dynamic, and interdependent character of human and nonhuman ecologies at any scale.

It's my contention that we should read empire as biocultural and conduct imperial history with biocultural processes at the fore in service of a methodology for doing empire history which does not simply reproduce the presumption of human species supremacy held by the imperial guardians who tried to manage colonial settlement and disruptions of it. Rather, the frame of biocultural empires offers a way to account for those mutually constituting processes and, in the archive I rely on here, those decidedly *interspecies* histories which require us to rethink the human subject preoccupations we've long drawn on for writing empire's histories, regardless of our thematic focus. For whether our subject is the environment or politics, science or society, race and gender or the economy, biocultural histories are at work. Meanwhile, the Victorian "parliament of animals" dataset I have assembled below is a little known and still less remarked upon *biocultural* storehouse which materializes patterns of mutuality and exchange across human and nonhuman worlds in the popular representational sphere of English-language print culture, such as we see in the image of the "octoman" that opens this essay. In particular, I aim to clarify what is at stake in devising new approaches to empire by historicizing the biocultural as a recurrent nineteenth-century imperial political form, one that shaped how readers consumed imperial dominion and contributed to how they might have made sense of its animal aspect.

If historians have been slow to cognize these animal preoccupations, a raft of literary studies over the last decade or more has made visible just how deeply representations of animals and animal life were stitched into the fabric of Victorian textual production. Novels, poetry, short stories, and many other kinds of writing to be found in the vast Victorian cultural sphere—all teem with evidence of human-animal relations. This phenomenon was so obvious to the Victorians themselves that some, like the author of an 1881 article entitled "Dogs of Literature," anticipated a version of the companion species manifesto by observing how may "masters of [Victorian] literature" had pets and peopled their fiction with them.[18] Work that tracks the correspondences between human society and animal worlds, and between human creatures and the rest of the creature world, dives deep into the Victorian textual universe to show how animal characters in specific novels—Charles Dickens' *Hard Times*, Thomas Hardy's *Far from the Madding Crowd*, among other texts—critiqued liberal

norms that led to the oppression of humans and animals, in part by endeavoring at once to police and to resolve distinctions between them.[19] Ivan Kreilkamp scales up from the specific text to form and genre to make claims about the very character of the English novel itself, arguing against an anthropocentric understanding of its realist form because such a reading fails to capture the way Victorian novels *as novels* were constituted by animals in their capacities as minor character/creatures. With a more intentional focus on creature life and the history of colonial power, Renisa Mawani and I have, together with over a dozen other authors, assembled a multisited account of how animals across the anglo-imperial world not only contributed to the operations of empire in spaces of settlement and hegemony, but could disrupt those operations in the process. From apes to squirrels, from cattle to scorpion, a wide range of species and subspecies may be seen to have troubled imperial ambition wherever it aspired to take root. Thanks to the community of scholars of nineteenth-century print culture and its variegated forms, what we now have access to at this stage in the historiography of Victorian animality is a rich archive of animal *protagonism*: a living, breathing bestiary which offers a partial view of histories and imaginaries of encounter between humans and nonhumans across the representational landscape of the period.

To be sure, encounter is one mechanism through which animal and human worlds cohabited and, as importantly, through which hierarchies of power and practices of epistemic and physical violence were visited. But it is an increasingly outmoded method through which to think through empire history. Webs, entanglement, and co-constitutive explanations for how power worked have all gained ground in the field in the last two decades, thanks in large measure to the research and writing of anticolonial scholars of empire who seek to eschew methods that echo Victorian imperial procedures to get outside the constraints ad inheritances of encounter and take up the work of accounting for relation, as part of the project of "undisciplining" the field of Victorian Studies writ large.[20] As we shall see momentarily, there is an iterative visual pattern of animal-human representation in Victorian print culture which suggests a more thoroughgoing mutuality *across* species than the binary of encounter permits: a relational, biocultural dynamic manifested as a recurrent imperial political form. The devilfish is not meeting John Bull; there is no space of encounter between; he is John Bull, and John Bull is the devilfish as well. Their relationship is not interactive, it is *interspecies*, with no hyphen, and in ways that compose and recomposing each without boundary or border.

The Animals of the Victorian Imperial Parliament

Even a casual consumer of Victoriana knows that the visual landscape of nineteenth-century *imperial* politics was awash with animals. The Bengal Tiger, the Russian Bear, the "Lion of the Jungle" (who conjures monarchy and empire all at once)—these are just the most emblematic images through which Britain's quest for global dominance was represented in animal form in the 1850s and after. Most infamous is the 1857 *Punch* drawing which represents the British imperial Lion exacting bloody vengeance from the Bengal Tiger for the audacity of the Indian Mutiny (Figure 2a).

Aided by the specter of the dead white woman and child underneath the paws of the tiger, this image reads like a textbook case of how "gender categorization overlay[s] species differentiation."[21] There is little doubt that 1857 was a war between men in which patriarchal control may have been momentarily defeated but the king of the jungle triumphed viciously nonetheless. Much like Landseer's dogs, the imperial Lion was a stock figure of imperial political discourse. His pairing with the Russian Bear was routinely mobilized to represent the rivalry

Figure 2a "The British Lion's Vengeance on the Bengal Tiger." In *Punch* Vol. 33, XXXIII: 76–7. London: *Punch* Publications Limited, 1857.

of the two nations as they vied, over decades, for mastery of India's Northwest frontier. *Punch*'s 1878 "Save Me from My Friends" is a now-classic example, positioning Shere Ali Khan, the would-be Afghan leader, between the Lion and the Bear (Figure 2b).

Facing us, not each other, they neither meet nor touch. Yet the ascription of animality to Khan is potential; that wayward tail behind him is drawn as if it could be coming from anywhere.

When it comes to the politics of animal drawings and other animal media, it pays to keep "the changing rhetoric of the image" in view.[22] Images of the Russian Bear, for example, preceded the conflicts in Afghanistan, even as they hardened into larger and more menacing shapes as that fruitless Victorian campaign persisted, well into the twentieth century. In the pages of *Punch,* the Russian Bear menaced Turkey in the 1850s; he was not always aggressive or confident; and by the early 1860s, when he wasn't a clear proxy for Tsar Nicholas I, he was being slapped upside the head by Poland, represented as a woman (who, incidentally, John Bull and his dog declined to defend). Despite the amount of ink spilled on mocking foreign potentates through direct animal equivalencies; however, the

Figure 2b "Save Me from My Friends." In *Punch* (November 30, 1878).

Victorian political cartoon sphere saved its most outlandish satires for English (and sometimes British) politicians, who were represented in animal form with such regularity that "Victorian parliament of animals" is an entirely apt rubric. In *Punch* itself, there was a regular section of the issue called "Punch's Essence of Parliament" dedicated exclusively to forms of animal-based mockery. These ranged from the ridiculous (two MPs represented as a dog and a hedgehog, 1867) to the sublime (man as a snail with a ballot box on his back, 1871) to the patently absurd (a bird sitting on legislative eggs, 1877) to the politically incendiary (the rendering of an Irish pig 1879).[23] Everyone from the prime minister to cabinet members to MPs came in for tarring and feathering over the course of Britain's imperial century.

And this is no mere metaphor. The bird—owl, pigeon, crow, robin—was possibly the most commonly recurring form through which political men were subject to ridicule in the cartoon genre, likely because the kind of preening associated with the self-importance those with status and rank is so easy to analogize, so available for a derisive laugh. Consider "The Opening of Parliament Pie" (1850; Figure 3) and "Parliamentary Night-Birds" (1891; Figure 4).

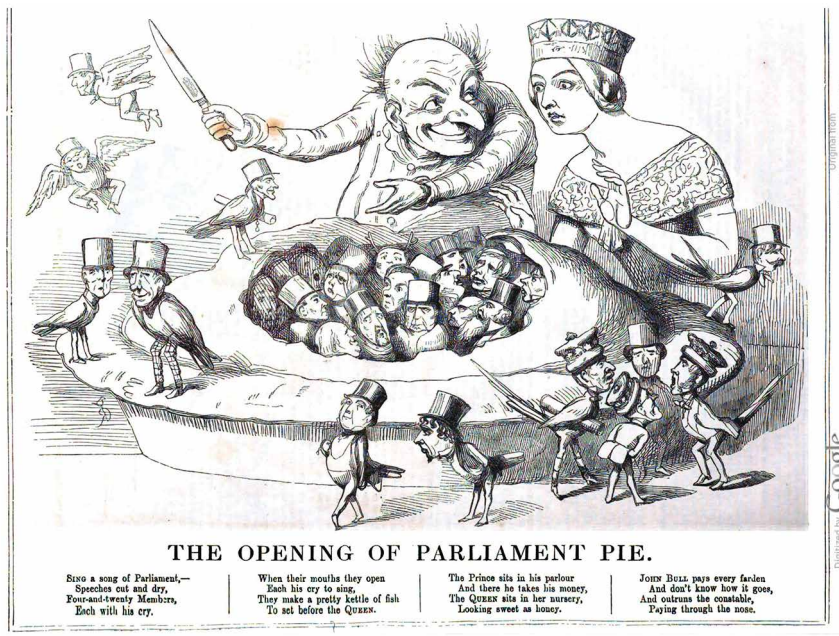

Figure 3 "The Opening of Parliament Pie." In *Punch* XVII: 45. London: *Punch* Publications Limited, 1850.

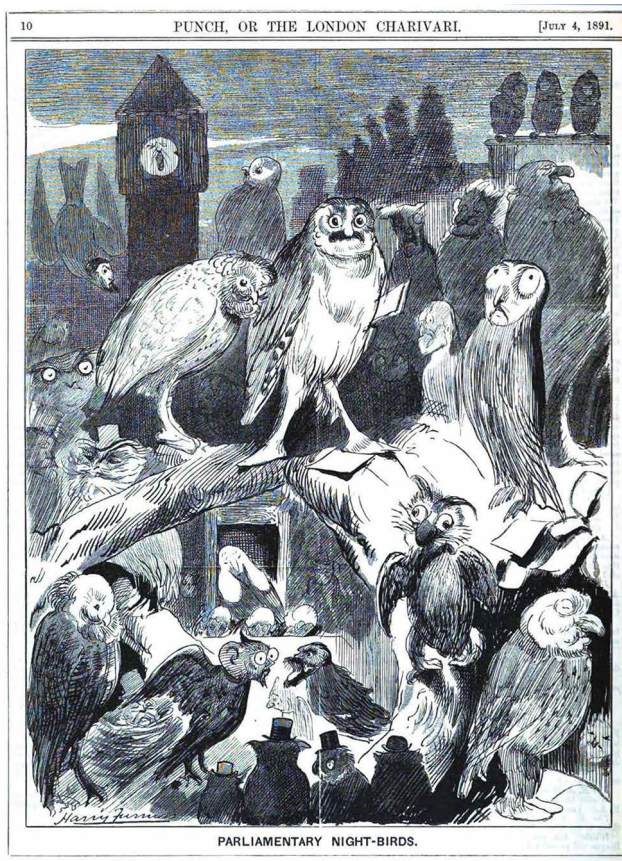

Figure 4 "Parliamentary Night-Birds." In *Punch* Vol. 101, CI: 10. London: *Punch* Publications Limited, 1891.

The prevalence of avian imagery in Victorian political satire has a venerable precedent, as does the imperial parliament of animals itself: Geoffrey Chaucer's *The Parliament of Fowls*, which he wrote in honor of Richard II's marriage to Anne of Bohemia in *c.* 1382. Chaucer's most recent biographer, Marion Turner, reads *The Parliament of Fowls* closely for its political meanings and especially for insurgent voices, as the cherles (waterfowl, etc.; House of Commons) interrupt the gentils (eagles; House of Lords) in a fictional governmental chamber where the goddess Nature convenes the assembly, herself a stand-in for the only recently created Speaker of the Commons.[24] While it's tempting to read the Victorian equivalents as allegory, what's significant here is the fact that there is a link not just between political form and animal "nature," but more precisely between deep parliamentary history and the imaginary of a more-than-human English polity.

The recurrence of birds notwithstanding, there's hardly a species that is not recruited for the imperial parliament of animals in Victorian political cartooning, and recruited typically to score powerful points about leading imperial questions of the day. Egypt, India, Australia, and southern Africa all came in for satirical treatment via animal imagery: elephants, jackals, boar, bees, rhinos, and more. The simian features given to Irish figures in the English satirical tradition are well known.[25] They are also a reminder of the fact that Ireland was considered by many Victorians to be an imperial possession, in ways that both reflected and produced contemporary convictions that the Irish fell short of full and true whiteness, and hence "true" humanness. Elsewhere, animals typically functioned as props in the spectacle of ministerial failure or administrative instability, especially but not exclusively in *Punch*. The discrete encounter—between animals implied to be politicians or between animals and politicians allegorizing events or issues—was a recurrent mode of representation in the Victorian cartoon sphere as in the literary one.

Take "The New Year's Gift" from 1858, where at the prospect of being handed a tiger (with the label INDIA on its side) by Sir Colin Campbell (commander-in-chief of India), Lord Palmerston politely, and nervously declines. The tiger looks menacingly at them, though they look only at each other (Figure 5).

Figure 5 "The New Year's Gift." In *Punch* Vol. 34, XXXIV: 5. London: *Punch* Publications Limited, 1858.

As Ralph Crane and Lisa Fletcher have observed, the visual archive of imperial tigers is consistent on this positionality, taking an anthropocentric view of the animal by plotting it exclusively inside the confines of human relations, from which it is also perforce an alien, an outsider, an enemy. Ritvo calls this a kind of "rhetorical animal."[26] To that I would add a rhetorical animal locked in a species of liberal imperial encounter, insofar as the tiger is an individualized subject, mapping onto singular and distinctive human figures in an uneven power relationship, between nature and politics, and linked, in this case, only by a chain—the chain of his (surely his), and India's, subjugation, post-1857.

And yet this is not the only, let alone the dominant, model available in the archive of the imperial animal parliament. As we have seen above, "parliament" itself was rendered as an interspecies body in multiple instances, as evidenced by the fact that parliamentarians are both men and birds simultaneously. This form of species-mixing is not limited to the governing body but can be discerned across a range of imperial cartoon subjects and across the whole of the second half of the nineteenth century as well. See, for example, "The Good Little Robins Burying the Bills in the Wood" (Figure 6, 1858).

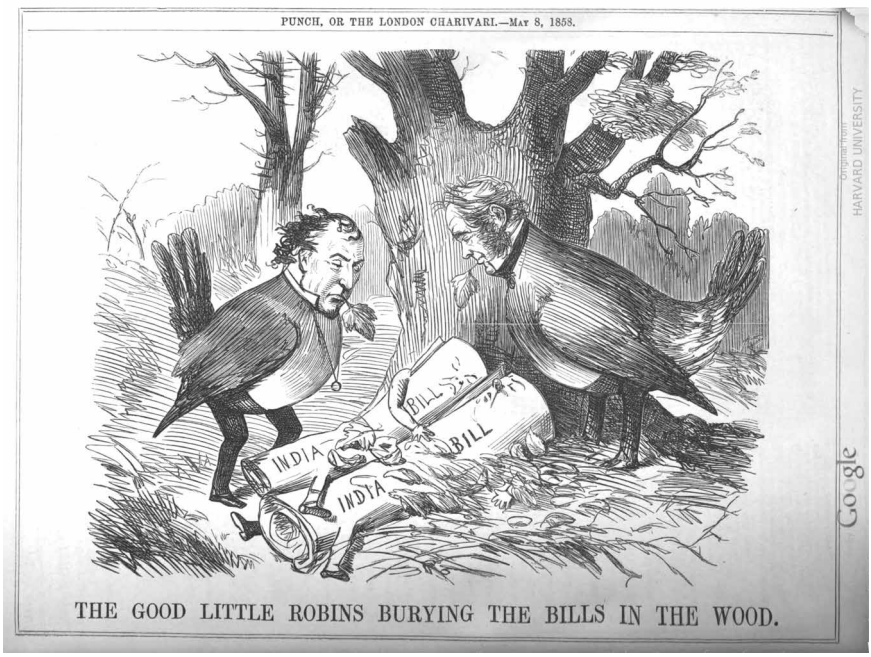

Figure 6 "The Good Little Robins Burying the Bills in the Woods." In *Punch* Vol. 34, XXXIV: 187. London: *Punch* Publications Limited, 1858.

In each of these images, the like of which are manifold in the annals of Victorian *Punch* alone, we see biocultural processes at work: that is, a rejection of the functional separation of human and animal forms and of the possibility that each has integrity (Figures 7 and 8). The satire is in the de-humanizing edge: we are at the precipice of unrecognizability, yet not quite. All this is in a visual capture of the undoing/remaking of a species line which is at once physical, social, and *geo*political. And all this, through a vehicle, the political cartoon, which draws on the human species supremacy of imperial aspiration not only to destabilize it but to insist that the boundaries set by imperial officialdom are always already in danger, in trouble, unreliable and hence patently fantastical as well.

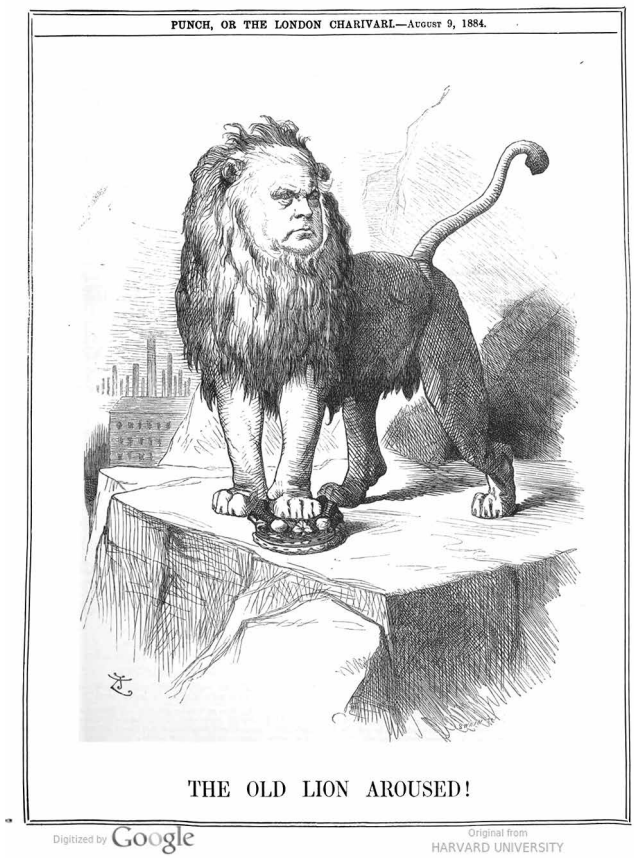

Figure 7 "The Old Lion Aroused!" In *Punch* Vol. 87, LXXXVII: 67. London: *Punch* Publications Limited, 1884.

Figure 8 "In Difficulties." In *Punch* Vol. 99, XCIX: 283. London: *Punch* Publications Limited, 1890.

In the bestiary I co-edited with Renisa Mawani, I analyzed "Stamping It Out," (Figure 9), published by the periodical *Fun*, in 1880, arguing that the scorpion is pictured "as a menacing, hybrid thing. Half insect, half Afghan tribal fighter, it scurries underfoot and seems to evade the attempts of John Bull (wearing a pith helmet) to stamp it out. If Britain has the backing of scripture, an enemy combatant that exceeds human boundaries and must be exterminated tests the capacity of the British soldier to win the battle definitively. In this illustration, nature is hybridized and weaponized, threatening the traditional military campaign with insect guerilla warfare."[27] The scorpionized Afghan tribesman/the tribalized scorpion can and should be seen as part of a continuum with the other examples pictured here, where again, there is no encounter *per se*. As with

Figure 9 "Stamping It Out." *Fun* (August 11, 1880): 55.

the devilfish too, what readers apprehend is a preternaturally hybrid creature, neither human nor animal and/but both at the same time. The biological markers and the cultural signs of these particular political forms exist in reciprocal relationship, redistributing features and characteristics of human/nonhuman figure(s) across an apparently porous species boundary. The effect is a distinctly graphic re/composition of "the subject" so that it cannot but be seen and read as the result of a shared habitat, one born out of empire and taking shape in ways that signal the porosity, the instability, of that would-be boundary line. Of the biocultural creature, Frost writes that "an organism can be seen as a literal corporealization of a conjunction between its transgenerational carried history and the environment within which it currently lives."[28] "Stamping It Out," together with its kin in *Punch* and elsewhere, is, I suggest, a literalization we see actively at work in historical time, in the historical domain of the Victorian imperial parliament of animals.

Let us return to the devilfish form, which is so emblematic and, as it happens, so malleable as well. Several years before its appearance as the avatar

of a troubled Egypt, it rose up as the monstrous face of the Irish Land League, wrestling with Prime Minster Gladstone in a life and death struggle, who has a knife to the creature's throat (Figure 10).

Interestingly, "devil-fish" is hyphenated in this caption, though that does not diminish its hybrid form. It's also on the backfoot compared to the later image, fighting for its life and at one remove from its ocean habitat, a disadvantage

Figure 10 "The Irish Devil-fish." In *Punch* Vol. 80, LXXX: 283. London: *Punch* Publications Limited, 1881.

which appears to give Gladstone (not usually known for his musculature) a leg up—albeit with a leg ensnared in the creature's tentacles.

The devilfish had many guises, galloping across the globe and morphing according to the biocultural markers of whatever empire it was signifying. Nick Ottens claims that its earliest nineteenth-century association was with the Russian empire of the 1870s. The German, the Austro-Hungarian, and the Japanese empires were also depicted as an octopus; the image proliferated well into the twentieth century in anti-communist, anti-British, and Allied propaganda.[29] By 1900, the cephalopod was the center-piece of a "serio-comic" map of empire, albeit one in "troubled waters"[30] (Figure 11).

Deriving from our shared vertebrate lineage, "endowed with an astonishing distributed nervous system and capable of recognizing others, of forming social bonds, of navigating mazes" and, of course, capable of choking the life out of its prey, the octopus is perhaps the ultimate imperial political form.[31] Through its various iterations we are able to grasp the relay between the nonhuman animal world and the historically specific mechanisms of its cultural constitution—and to appreciate how the print world thrown into motion by nineteenth-century western technology enabled the global—and the *racializing*—assemblage of imperial politics in a biocultural mode.[32] If as Ritvo has posited, the category animal itself is an "expansive and promiscuous usage," histories of Victorian imperialism are directly responsible for several of the models (liberal encounter or biocultural form) through which contemporaries apprehended not just the entanglement of nature and culture but the very promiscuous simultaneity of human and nonhuman life.[33] Accumulating specific historical examples of when and where evidence of biocultural expressions have exerted their influence, in this case through popular cartoons which normalized the "humanimal" form, works to undermine anthropocentric accounts of empire and compels us to think anew about our preoccupation with the exceptionally human subject of imperial history.

Darwin, *Punch*, and Satire: The Boundary-Line of Political Possibility

Reading along as well as against the imperial human bias grain requires us to account for why biocultural forms proliferated across such a wide spectrum of the Victorian imperial visual economy.[34] There's a decided logic to the Darwin effect: that is, the pressure that *Origin of Species* (1859) and *Descent of Man* (1871), together with the corpus of race and evolutionary science thinking and writing, put on the boundary-line between species. As Marlene Tromp has observed, after

the publication of *Origin*, "half-animal, half-human characters became easily defined as 'missing links' in an increasingly fluid chain of being."[35] The pages of *Punch*, not to mention the antecedent example of Chaucer's *Parliament of Fowls*, suggest that these are nonlinear histories of impact and influence. But there's no gainsaying the ways that biocultural form intensified in the later nineteenth century, leaving not even Darwin himself untouched. One of the draughtsman Edward Linley Sambourne's most famous drawings was "Man is But a Worm" for *Punch's Almanack* in 1882 (Figure 12).

As Susan David Bernstein describes it, the cartoon "is a revolving depiction of evolution from 'chaos' and invertebrates to simians and finally to an aged Charles Darwin, whose last book on earthworms, and whose own death, offer a context for the image."[36] As a transmogrified biocultural figure, Darwin joined the ranks of other famous men of his age: Abraham Lincoln, a raccoon; and the young Winston Churchill, a caterpillar whose renderings as biocultural creatures left them still recognizable, yet ultimately conditioned by interspeciality (Figures 13 and 14).[37]

As Bernstein also notes, and despite the overwhelmingly masculinist patterns of the biocultural archive of empire, Sambourne worked his way toward the Darwin-as-Worm form through a series called "Designs after Nature," which

Figure 11 Frederick W. Rose, *John Bull and His Friends: A Serio-Comic Map of Europe*. London: G.W. Bacon and Co., Ltd, 1900.

Figure 12 "Man Is but a Worm." In *Punch*'s Almanack for 1882 (December 6, 1881).

featured borrowings from birds and other animals as emblems of forward fashion for Victorian women in the 1860s and 1870s. These features were ornamental (feathers, scales, the inevitable mermaid tail) and did not technically recompose the female figure. Yet they speak to the ways that evolutionary science popularized "the idea of continuous and often imperceptible change"—as well as the re/iterations of biocultural forms—in a variety of generic settings. If taxonomies of nature were, *pace* Darwin, processes under continuous revision, then figuring the likes of Lincoln and Churchill and Darwin himself as subject to them was an articulation of the vertical and as well as the horizontal pull of interspecies possibility on the Victorian imagination.

Beyond visual representations, of course, the actually unfolding material realities of empire also contributed to the ways that Victorians understood the species boundary question. Anyone who served in a colonial campaign (in West

Figure 13 "Up a Tree." In *Punch* Vol. 42, XLII: 13. London: *Punch* Publications Limited, 1862.

Africa, India, Afghanistan, the Soudan) would have seen first hand that it was the biopower of animals conscripted by the military who drove success and failure in battle. The proximity of camel and horse to British troops whether bivouacked or on the move, not to mention the reliance of the latter on the health and labor capacity of livestock and pack animals, was well known to soldiers. It was equally

Figure 14 "A Mushroom Caterpillar." In *Clara in Blunderland*: 17. London: William Heinemann, 1903.

apparent to the Victorian reading public worldwide, which consumed news of these interdependent species of "combatants" literally on a daily basis; such was the hunger for tales of imperial derring-do, fed of course by the imperial print

culture machinery that was enabled, in turn, by cheap paper and "sensation mania" in the 1860s and after. Military life was brutal and bestial; it was bestial because it was brutal and vice versa, and not simply in a metaphorical sense. Perhaps surprisingly, animal energy propelled the imperial war machine as late as the First World War. The Victorian century was thus an extended moment of transition between types of energy—and here I borrow from Jamie Jones' book, *Rendered Obsolete*—a historical transition which biocultural representations may be said to have mediated in part via imperial political form.[38]

Unsurprisingly, also mediating this fragile divide between animal and Briton in the midst of war were Indigenous servants, cooks, and pack handlers. Often subject to the same disregard as the animals who supported imperial war, the *sarwan* (camel driver) is practically invisible in official histories and is a shadowy presence at best in fictional accounts.[39] Local handlers are also comparatively infrequently evident in the visual archive of the biocultural, an archive which is emphatically bilateral (*imperial* human/*colonized* animal) when it comes to the subject of interspeciality.[40] Rarer still is attention to intra-animal re/compositions, of the kind to be found in Alice Perrin's 1901 anthology of short stories, *East of Suez*. There the "biscobra"—"an animal whose existence, veracity, and characteristics were much debated by those interested in Indian natural history"—became a "racialized metric of scientific knowledge" despite its ambiguity and its multispecies aspect.[41] At its limit, thinking bioculturally through imperial political form raises important questions about how to exceed the vestigial dualities of the species boundary-line. This is a challenge of research design, of narrative, and of interpretive method all at once.

The fact of imperialism on the ground shaped the very stuff of life "at home" and "away." In the process, biocultural colonial realities entered the realm of the imperial imaginary wherever it circulated. The arena of print culture itself was an extraordinarily powerful relay system for this process: a giant membrane whose porous boundaries were promiscuously crossed and whose tentacled machinery (not just between London and, say, Sydney, but between Sydney and Calcutta and through other intracolonial pathways as well) enabled a variety of forms to collide to biocultural effect. As must be clear from the visual archive I have drawn on, the political periodical and specifically the political cartoon were critical to the ways these collisions were produced and circulated. Just as the zoological idiom was a major entrée point into empire for Victorians, so too *Punch* and its competitors "were a key means by which British readers encountered and engaged with issues of empire and imperialism."[42] Not that the cartoon genre was isolated

from any other in this ecosystem, to the contrary. The collisions that generated biocultural expressions could and did happen across the porous boundary of the novel and the political cartoon, and in the fertile ground between children's literature and anti-establishment jibe, in the Churchill-as-Caterpillar image (see Figure 14).[43]

Here *Punch* riffed directly off the Caterpillar figure in *Alice in Wonderland,* sending up the young war correspondent as he cabled self-regarding stories for the "Morning Post" from the Northwest frontier back to London while smoking from a hookah. Lewis Carroll was in turn satirizing the nonsensical effects of anthropomorphism, in which anything ("even cards, flowers, or pudding") might be figured as human, as a direct response to the way evolutionary science blurred taxonomical boundaries. That's a powerful argument for the reciprocal and redistributive powers of the biocultural across the boundaries of imperial literary form—generic category confusion by any other name.[44]

Scholars from Benedict Anderson to Isabel Hofmeyr have made the case for print culture as an agent, a material force, in the making of national and imperial histories.[45] Less well explored is the question of genre—in this context, the genre of satire—and its particular role in the sphere of imperial opinion-making. An inherently political, and politicizing, genre, satire was used by critics of empire in the metropole and colony alike. Satirical journals emerged in Egypt in the nineteenth century though they did not gain ground until the interwar period.[46] In India comic magazines like *Hindi Punch* and *The Indian Charivari* were popular, mirroring the ludicrousness of colonialism back to English-speaking audiences, among them Indian students, civil servants, and rising nationalists.[47] Graphic satire is typically heralded as a culturally coded *English* form whose ascendancy maps directly onto the age of empire, with *Punch* its key venue. That said, Punch's subtitle—*The London Charivari*—suggests its connection to a French periodical of the same name, confirming what we know well but tend to forget: namely, that all things national are always already admixtures, composed and recomposed before they arrive at our sightlines. Individual artists like John Tenniel and Linley Sambourne had tremendous influence at *Punch*, even as it often operated through what has been called a "cartoon-by-committee" approach, giving a whole new meaning to the concept of editorial satire, and to the impact of the "*Punch* Brotherhood" as well.[48] Taken together, the apparatus of *Punch* and the work of its cartoonists were crucial to the design and circulation of biocultural imagery. In the process, they gave visual culture a huge role in shaping Victorian ideas about white English liberal imperial government in an anthropomorphic frame.[49]

Significantly for our purposes, while the political cartoon is the vehicle for biocultural expression in its visual form, promoting the ready availability of the human figure for reconstitution in anthropomorphic terms, satire marks the limits as well as the possibilities of its radical biocultural potential in imperial terms. Satire is not, here, the site for the reinvention of form, but for the consolidation of the biocultural as an *imperial* form, albeit one that plays with what Sylvia Wynter calls "the genre of the human."[50] Furthermore, *Punch* was ultimately a closed system, in which colonial peoples and even biocultural creatures could never be subjects, only the objects of scrutiny, mockery, ridicule. It was a theater of liberal imperial encounter, in other words, where perhaps inevitably even biocultural signs and referents were contained and constrained by the material realities of metro-centric production values and a very English crew. Not least, these spectacles of biocultural possibility were rarely if ever mooted for anticolonial ends—in part because anticolonialism, understood as the determination to dismantle imperial structures, was practically unimaginable in the nineteenth century. Irish republicanism in the Victorian period, with it assassinations and bombings and undeniably radical intentions, is clearly an exception here. This may explain why the simian Irish figures which populated the visual universe of Victorian imperial political culture were so relentless, vicious, and, without irony, utterly de-humanizing.[51]

In this essay I have re-materialized a select but significant archive of images from the bestiary of Victorian culture to challenge the apparent primacy of the human subject in British imperial history, framed by Frost's suggestion that "what we need in the place of the fantasy of human exceptionalism is a different figure of the human."[52] In doing so I have elaborated the biocultural as a domain of signification and as a recurrent, if not necessarily an insurgent, imperial political form. Indeed, the effect of such an analytical framework is hardly redemptivist: for it helps us realize anew how imperial discourse, whether textual or visual, whether liberal or radical, and despite the historical work it does to make visible the biocultural, repeatedly fails to materialize the core intention of empire: extraction, dispossession, violence over the land and the sea.

Meanwhile, with a focus on images and text, I have remained within the realm of representation to seek out historical evidence of how such a different figuration looked in and through Victorian imperial politics and culture. Frost's work ultimately calls for a materialist approach to this refiguration, in which new theories of the human come out of a reworking of our understanding of the biological sciences—an arena analogous to what historians might call the

hardware, the archaeology, of knowledge. I see representation and materiality as deeply connected, interdependent, and recombinant, one of the other, precisely as a result of historically imperial conditions and processes. And I am not alone; indeed, I am behind, following respectfully in the footsteps of Black feminists like Christina Sharpe and Alexis Pauline Gumbs writing today. For them, the metaphorical analytics of enslavement—the ship, its wake—call for anti-abstraction urgently, undeniably, *as* material form.[53] This is why the materiality of metaphor remains a powerful delivery system for anti-imperial methodology, because it refuses binary logics. And in the case of biocultural creatureliness, it contains a theory of anti-imperial resistance—to the liberal encounter model, at least, and to the human species supremacy it tends to reinscribe.[54]

There are a lot of anti-empire scholars stuck on the metaphor/materiality dichotomy—on the tense and tender relationship between the figure-of-speech action and its relationship to the real. The biocultural archive certainly conjures that relationship. But the images are either less a metaphor or more; they are an index of something; a sign; an indicator, a tell—no—a signal, a pulse, an echolocation: that bio-sonar capacity which some animals use to navigate their environment. Historians should be more attuned to this possibility: they should develop echolocation skills of the kind that Gumbs models in *Undrowned* so that they can more fully appreciate the biocultural work beating, soundlessly perhaps to us but audible on other wavelengths, at the heart of modern British imperialism. And, in the spirit of Gumbs, so that they can more fully appreciate not just the porous boundaries at the heart of the biocultural, but its constantly shifting ground in relation to those, like historians, who seek to grasp it.[55]

To recast Frost, then: what the example of the imperial political form offers to the project of biocultural empire is a chance to observe how even and especially that "different figure of the human" is arrived at through a series of processes that are as fantastical, as processes, as those which work to shore up human exceptionalism—and with it the presumption of white supremacy over land and sea, as if human animals were not entangled in, and thereby unimaginable without their relation to, the so-called natural world. In the end, it's precisely in the dynamic, liminal spaces of becoming—what I would call the psychic life of empire—that the imperial political forms of the biocultural can themselves be seen composing and recomposing, leaving some notable anthropomorphic traces for imperial historians to reckon with at this critical juncture in anthropogenic history.

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With enormous thanks to Beth Ann Williams for mining the archives of Victorian print culture with such careful attention and in such thoughtful detail. Without her work this essay would not have been possible. Lex Sundarsingh also investigated the cephalopod and related histories at a critical moment in the development of the essay. I'm grateful too to the first round of readers for Bloomsbury and to many who read this draft, especially Renisa Mawani and Jamie Jones.

Notes

1 Caroline Ekins, "The Imperial Fictions behind the Queen's Platinum Jubilee," *The New York Times*, June 4, 2022. See also Zoe Laidlaw, "New Directions in Britain's Empire Story." *History Today* 61, no. 11 (2011), https://www.historytoday.com/archive/signposts-new-directions-britains-empire-story, last accessed June 21, 2022.

2 Though I do not derive my sense of the term from it, my curiosity about "political form" was prompted by the title of F. G. Bailey's book, *The Need for Enemies: A Bestiary of Political Forms* (Ithaca: Cornell University Press, 1998).

3 Renisa Mawani, *Across Oceans of Law: The Komagata Maru and Jurisdiction in the Time of Empire* (Durham, NC: Duke University Press, 2018).

4 Tom Griffiths and Libby Robin, eds., *Ecology and Empire: Environmental History of Settler Societies* (University of Washington Press, 1997), 3.

5 See, for example, John Darwin, *The Empire Project: The Rise and Fall of the British World-System, 1830–1970* (Cambridge, 2011) and Alan Lester, Kate Boehme, and Peter Mitchell, *Ruling the World: Freedom, Civilisation and Liberalism in the Nineteenth Century British Empire* (Cambridge, 2021).

6 Harriet Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Harvard, 1987).

7 Heather Davis and Zoe Todd, "On the Importance of a Date, or Decolonizing the Anthropocene." *ACME: An International Journal for Critical Geographies* 16, no. 4 (2017): 761–80. For a succinct account of hierarchies within colonial hierarchies when it comes to these questions, see Elizabeth Chatterjee, "The Asian Anthropocene: Electricity and Fossil Developmentalism." *Journal of Asian Studies* 79, no. 1 (2020): 3–6.

8 For an account which flags this and redresses it, see Ivan Kreilkamp, *Minor Creatures: Persons, Animals and the Victorian Novel* (Chicago, 2018). Quote is from p. 14.

9 For a powerful rejection of this orientation, see Rohan Deb Roy and Sujit Sivasundaram, eds., "Nonhuman Empires," a special subsection of *Comparative*

Studies of South Asia, Africa and the Middle East 35, no. 1 (2015). See also Roy, *Malarial Subjects: Empire, Medicine and Nonhumans in British India*, 1820–1909 (Cambridge, 2017).

10 John Newsinger, *The Blood Never Dried: A People's History of the British Empire* (Bookmarks, 2006); Antoinette Burton, *The Trouble with Empire* (Oxford, 2015) and Priyamvada Gopal, *Insurgent Empire: Anticolonial Resistance and British Dissent* (Verso, 2019).

11 Tracy Banivanua Mar and Penelope Edmonds, eds., *Making Settler Colonial Space* (Palgrave, 2010); Adele Perry, *Aqueduct*: *Colonialism, Resources, and the Histories We Remember* (AK Press, 2016).

12 Bathsheba Demuth, "Labors of Love: People, Dogs, and Affect in North American Arctic Borderlands, 1700–1900." *The Journal of American History* 108, no. 2 (2021): 272.

13 They may prefer to identify as African, indigenous or—my personal preference—*anti*-imperial historians. I prefer this in part because "imperial historian" can connote a consonance with imperial assumptions and processes I strive to avoid.

14 I take that sphere to be both metropolitan and colonial, in keeping with three decades of scholarship that shows how and why we must understand core and periphery in the anglophone context as one continuous "imperial social formation." For the most succinct and enduring articulation of this point, see Mrinalini Sinha, "Teaching Imperialism as a Social Formation." *Radical History Review* 67 (1997): 175–86.

15 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Duke, 2016), 4 and following.

16 I hope that "mutuality" here will not be confused with inter-relational or "interactive," the latter assuming a sovereignty or coherence in cultural and environmental phenomenon I am trying to avoid, *pace* Frost, "Ten Theses on the Subject of Biology and Politics: Conceptual, Methodological, and Biopolitical Considerations," in Maurizio Meloni, et al., *The Palgrave Handbook of Biology and Society* (2018): 902–3.

17 See Robin Wall Kimmerer, "The Serviceberry: An Economy of Abundance," via *The Global Oneness Project*, https://www.globalonenessproject.org/library/essays/serviceberry-economy-abundance, accessed June 17, 2022. "Passage through a bird gut scarifies the seeds to stimulate germination. The birds provide services to the Serviceberries, who provide for them in return." Thanks to Jenny Davis for this reference.

18 Cited in Kreilkamp, *Minor Creatures*, 23. Philip Howell suggests a related companionate story when he calls Dickens the Landseer of fiction; see his *At Home and Astray: The Domestic Dog in Victoria Britain* (UVA, 2015). See too of course Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago, 2003).

19 Anna Feuerstein, *The Political Lives of Victorian Animals* (Cambridge, 2021); Kreilkamp, *Minor Creatures*.
20 See for example Ryan D. Fong, "The Stories outside the African Farm: Indigeneity, Orality, and Unsettling the Victorian." *Victorian Studies* 62, no. 3 (2020): 421–32.
21 Linda Kalof, *Looking at Animals in Human History* (Reaktion Books, 2007), 143.
22 Alex Potts, "Natural Order and the Call of the Wild: The Politics of Animal Picturing Author(s)." *Oxford Art Journal* 13, no. 1 (1990): 18.
23 "Punch's Essence of Parliament," in *Punch Vol. 52*, LII:84 (London: Punch Publications Limited, 1867); "Punch's Essence of Parliament," in *Punch Vol. 61*, LXI:22 (London: Punch Publications Limited, 1871); "Punch's Essence of Parliament," in *Punch Vol. 72*, LXXII:254 (London: Punch Publications Limited, 1877); "Punch's Essence of Parliament," in *Punch Vol. 76*, LXXVI:241 (London: Punch Publications Limited, 1879).
24 I draw here on Barbara Newman's review of Turner's book [*Chaucer: A European Life* (Princeton, 2019)], ""Kek Kek! Kokkow! Quek Quek!." *The London Review of Books* 41, no. 21 (November 19, 2021): 9–10.
25 See Amy E. Martin, "A is for Ape," in Antoinette Burton and Renisa Mawani (eds.), *Animalia: An Ant-Imperial Bestiary for Our Time* (Duke, 2020), 21–36.
26 Ralph Crane and Lisa Fletcher, "Picturing the Indian Tiger: Imperial Iconography in the Nineteenth Century." *Victorian Literature and Culture* 42, no. 3 (2014): 370. Ritvo is cited here as well, p. 372.
27 Antoinette Burton, "S is for Scorpion," in Antoinette Burton and Renisa Mawani (eds.), *Animalia: An Anti-Colonial Bestiary for Our Times* (Durham: Duke University Press, 2020), p. 167.
28 Frost, *Biocultural Creatures*, 123.
29 Nick Ottens, "The Octopus in Political Cartoons," August 8, 2017, https://neverwasmag.com/2017/08/the-octopus-in-political-cartoons/, last accessed June 21, 2022. In Australia in the late 1880s visualizing the "Mongolian Octopus" was part and parcel of the "White Australia" campaign: https://www.nla.gov.au/stories/blog/exhibitions/2019/05/10/australia-for-the-white-man. See David Olds and Robert Phiddian, "Australian Cartoonists at the End of Empire: No More 'Australia for the White Man,'" in Richard Scully and Andrekos Varnava (eds.), *Comic Empires: Imperialism in Cartoons, Caricature and Satirical Art* (Manchester, 2020), 393–425.
30 See "Mapping Chaos: Fred W. Rose's Serio-Comic War Map," https://illustrationchronicles.com/mapping-chaos-fred-w-rose-s-serio-comic-war-map, last accessed December 29, 2023.
31 Maria Popova, "Octopus Empire: An Animated Poem," https://www.themarginalian.org/2022/04/14/octopus-empire/, last accessed June 21, 2022. See also (incredibly) Danna Staaf, *Squid Empire: The Rise and Fall of Cephalopods* (ForeEdge, 2017).

32 As Alexander G. Weheliye puts it, paraphrasing Sylvia Wynter, "racialization is instituted … in the realm of human physiology as the sociogenic selection of one specification group in the name of embodying all humanity." *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Duke, 2014), 60.

33 Deborah Denenholz Morse and Martin A. Danahay, eds., *Victorian Animal Dreams: Representations of Animals in Victorian Literature and Culture* (Routledge 2017), p. 273. For an early iteration of the liberalism-biology connection, see Michael Freeden, "Biological and Evolutionary Routes of the New Liberalism in England." *Political Theory* 4, no. 4 (1976): 471–90.

34 For the concept of the "bias grain" I am grateful, as are so many others, for Marisa Fuentes' *Dispossessed Lives: Enslaved Women, Violence and the Archive* (University of Pennsylvania Press, 2016).

35 Marlene Tromp, *Victorian Freaks: The Social Context of Freakery in Britain* (OSU, 2008), 135.

36 Susan David Bernstein, "Designs after Nature: Evolutionary Fashions, Animals, and Gender," in Morse and Danahay (eds.), *Victorian Animal Dreams* (Routledge, 2017), 65–7.

37 For an analysis of the Lincoln image, see Daniel Heath Justice, "R is for Raccoon," in Burton and Mawani (eds.), *Animalia* (Durham: Duke University Press, 2020), 153–70.

38 Jamie L. Jones, *Rendered Obsolete: Energy Culture and the Afterlife of US Whaling* (UNC 2023).

39 James L. Hevia, *Animal Labor and Colonial Warfare* (Chicago, 2018), 6 and ff.

40 For a complex and original reading of the evidence of native and animal relations in print and image, see Jonathan Saha, especially *Colonizing Empire: Interspecies Empire in Myanmar* (Cambridge, 2021).

41 Meghna Sapui, "Is It a Snake with Legs, or a Lizard without Them?: The Strange and Wondrous Case of the Biscobra," *Journal of Victorian Culture Online*, June 3, 2022, https://jvc.oup.com/2022/06/03/the-strange-and-wondrous-case-of-the-biscobra/, last accessed June 21, 2022. Thanks to Lara Kriegel for this reference.

42 Scully and Varnava, eds., *Comic Empires*, 3.

43 The image can be found in Caroline Lewis, *Clara in Blunderland* (Heineman, 1902), extending the satirical reach of the biocultural still further into the realm of book-length political satire. See also Laura White, *The Alice Books and the Contested Ground of the Natural World* (Taylor and Francis, 2017), 31. For an interesting Victorian experiment in category confusion, see W. C. M., "Landseer as a Humorist." *The Art Journal* 5 [new series] (1879): 361–5.

44 See also Charles Geake's parody on *Alice*, *John Bull's Adventures in Fiscal Wonderland illustrated by Frances Carruthers Gould* (Metheun, 1904, first edition).

Republished with a foreword by Michael Everson by Evertype (2010). Everson offers an illustrated key to help readers track the identities of the politicians satirized, often through playing with animal form, in Gould's images.

45 Benedict Anderson, *Imagined Communities: Reflections on the Origins and Spread of Nationalism* (London: Verso, 1983); Isabel Hofmeyr, *Gandhi's Printing Press: Experiments in Slow Reading* (Harvard, 2013).

46 See Keren Zdafee, "Between Imagined and 'Real': Sarukhan's al-Masri Effendi Cartoons in the First Half of the 1930s," in Scully and Varnava (eds.), *Comic Empires*: 222.

47 See Partha Mitter, "Cartoons of The Raj." *History Today* (1997): 16–21, https://www.csus.edu/indiv/o/obriene/art109/readings/Partha%20Mitter%20Cartoons%20of%20the%20Raj.pdf.

48 Scully and Varnava, *Comic Empires*, 10, 17, 18. For an extensive collection of work on Punch as an imperial phenomenon, see Hans Harder and Barbara Mittler, eds., *Asian Punches: A Transcultural Affair* (New York: Springer, 2013). Thanks to Lingyan Liu for this reference.

49 See Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800–1910* (Chicago 2008), where he implies that in liberal thinking, to govern is to structure the possible field of vision of others (14).

50 I draw appreciatively on Yogita Goyal, *Runaway Genres: The Global Afterlives of Slavery* (New York: NYU, 2019); on Weheliye's treatment of Wynter in *Habeas Viscus*; and on Wynter herself via Katherine McKittrick, ed., *Sylvia Wynter: On Being Human as Praxis* (Durham, NC: Duke, 2015), especially through Carole Boyce Davies' essay "Genres of Human," pp. 183–202.

51 There is work to be done on how Irish republicans returned the salvo of *Punch*'s Rhodes-astride-the route-from-the-Cape-to-Cairo with their own anti-imperial graphic, "The Great Briton," who stands furiously, anthropomorphically astride the world. See Patrick Ford, *The Criminal History of the British Empire* (The Irish World, 1915), between pages 56 and 57. Here too the British empire was visualized as "the trail of the serpent" (frontispiece).

52 Frost, *Biocultural Creatures*, 13.

53 Christina Sharpe, *In The Wake: On Blackness and Being* (Durham, NC: Duke, 2016); Alexis Pauline Gumbs, *Undrowned: Black Feminist Lessons from Marine Mammals* (Chico, CA: AK Press, 2020).

54 Tani E. Barlow is making something like the same point in her discussion of graphesis in *In The Event of Women* (Durham, NC: Duke, 2021) when she argues that images are not a metaphor or a representation but "a graph of the real" (p. 13).

55 Gumbs, *Undrowned*, especially p. 6: "I took my cue from the many marine mammals that echolocate. I had to focus not on what I could see and discern, but instead on where I was in relation, how the sound bouncing off me in relationship to the structures and environments that surround me locates me in a constantly shifting relationship to you, whoever you are by now."

4

Ganja and the Godhead: Plant Matter and the Sacral Binds of the Excise Principle in British India

Utathya Chattopadhyaya

Remnants of Doyhata

On a cold night in 1904, in Doyhata, a small village in British India's Dacca district, Prasanna took matters of life and death into his hands. He fatally stabbed Ananda, a fellow disciple, before orchestrating a series of inversions of caste hierarchy that he scripted using a bricolage of sacral practices from the fluid world of religious meanings in agrarian Bengal. He initiated what he considered the apocalypse to end the Kaliyuga, an age of moral decline, and set the world right again. He forced Brahmin men to undress in public and tore their most intimate adornment, the sacred thread. He then commanded Brahmin women to perform elements of divine motherhood in Shakta worship and submit to purification by the touch of a kolki, or smoking pipe. In his purification ritual, Prasanna separately used a knife that was for cutting ganja before smoking it in the pipe. Ananda's subsequent murder trial prosecuted three men—Lalmohan Majumdar, a Brahmin landholder with declining fortunes, Kalikumar Chakrabarti, a former teacher in a colonial government school who left home and took on the persona of a traveling sadhu called Kalachand, and Prasanna, Kalachand's devotee, who came from an untouchable Chandal home. Ananda came from a Bhuinmali family, a caste group that was often more marginalized than Chandals in rural Bengal. For most of the night, at least three of the four were highly intoxicated with ganja.

That night's events lie ensconced in the canon of *Subaltern Studies* and South Asian social history. Sumit Sarkar, in his path-breaking analysis of the trial and press coverage, probed how caste structures shaped the world of these

men and the Sessions Court's verdict singling Prasanna out for murder.[1] The fluidity of cosmological traditions in Bengal underlay Prasanna's script and the meanings of each act, which Sarkar situated within disenchantments caused by routines of new British institutions that shaped male desires for spiritual adventure and devotional community. Unlike Elokeshi's murder in 1873, that night never seriously impacted dominant culture or reverberated as an enduring public scandal beyond a crowded courtroom.[2] Sarkar noted how Prasanna's actions—both the murder and what ensued—powerfully reversed norms of caste domination. The muted response of upper-caste men toward him in the village did not lend favorably to the emerging politics of Brahmin masculinity, middle-class respectability, and Hindu nationalism prevalent in urban Calcutta. Similarly, this fluid social and spiritual world, co-constituted by competing discourses of Brahminical revivalism, fears of the Kaliyuga, different iterations of the Kalki-myth, Pir traditions among rural Muslims, ideas from Shakta worship of Kali, and malleable rituals of Vaishnavism, had no place within the consolidating orthodox political positions against British colonialism on the eve of the first partition of Bengal. The Calcutta High Court's all-British bench ultimately overturned the previous judgment, found all three men guilty, and noted that Kalachand's ganja use had not caused mental impairment.[3]

That night, Prasanna channeled a remarkable range of ideas from literature, theater, history, and myth. He called himself Eklavya, after the famous Adivasi (Nishada) warrior, and appointed Lalmohan as his teacher, calling him Drona. He called Ananda an embodiment of Yama, the God of Death. Before that night, Lalmohan had announced to many that Kalachand, who they had accepted as their spiritual master, would transform into the figure of the Kalki-Avatar, set the world right, and bring Ananda back to life. Kalachand's small following clearly held him in high esteem—Lalmohan brought all the women of the house to touch his feet, and when Lalmohan reneged on his previous promise of ritually sacrificing his own son for the apocalypse, Prasanna made Rajlakshmi, Lalmohan's wife, kick him thrice on his head publicly. Before all this, Prasanna had stabbed Ananda in what may have been a preplanned pact because both believed a sacrifice was necessary to initiate this world-shaping moment after which Kalachand would bring Ananda back to life and the English would be compelled to acknowledge his greatness.[4] Such spectacularly creative mutations and inversions of caste and gender, in Sarkar's analysis, revealed a subaltern lifeworld shaped by *pauranic* practices, Vaishnavite rituals, the power of mockery and carnivalesque theatricality in the hands of oppressed groups, and emerging tensions between Chandal communities politically challenging

their social marginalization by claiming the Namasudra identity and the eventuating tensions with other groups like Bhuinmalis and Muslims in rural colonial Bengal.

Yet, there remain histories of the inseparability of plant, human, and more-than-human entanglements within that night's remarkable events. As empire unfolded in rural corners of Britain's prized colony, the boundaries between humans navigating colonial systems and varieties of colonized selves, intoxicating cannabis plant matter like ganja, more-than-human forces like deities, and sacral objects like knives and pipes, were fundamentally precarious. Under the influence, men embodied deities, life appeared transferable, and a plant's material products animated a theatrical inversion of hierarchy. Human bodies, the influence of intoxication through plant matter, and the contexts of empire have an intimately historical interrelationship and imperial histories of drugs and alcohol have not fully accounted for how prior experiences of intoxication, over time, shaped yet never fully determined the possible nature of later ones and the socio-political contexts and events that made boundaries of human and nonhuman precarious.

The body's memory of, and reaction to, the ingestion of an intoxicant depends mutually on the biochemistry of the substance and the contingencies of the immediate environment and stimuli when it is under the influence. Can one interrogate the potential of corporealized bodies living with imperial rule to generate histories under the influence? By conceiving the human as a biocultural creature constantly composing, decomposing, and recomposing in relationship to habitats, Samantha Frost foregrounds the fundamental non-contemporaneity of body and habitat and situates the relationship between genetic memory, cellular development, and the porosity (or lack thereof) of material being across different scales. Experiences, Frost argues, "get materialized in and as the self," not as fixed features but as complex "histories-of-responses" with temporalities that may be fluid or disjunctive as they intensify or dissipate over time.[5] This essay revisits Prasanna's actions under the influence of ganja by systematically analyzing the material circulation of intoxicant substances and embracing the generative power of a single disjunctive experience of intoxication that is non-contemporaneous with historically patterned consumption by a single body or a social collective.

Frost's analysis is an invitation to analyze intoxication historically, as practice, experience, and causative. This is challenging especially because the body's longer sensory memory requires historicization alongside the structures that shape and constrain its responses and reactive capacities in moments of

intoxicated activity which might themselves be fluid, disjunctive, exceptional, or excessive. Further, with intoxicants derived from plant species, like cannabis, the transformation and circulation of matter from one life-form to another suggest further room to explore the porosity of the human in imperial history. Plants-as-matter and the corresponding materiality of plant parts, substances, and capacities they produce in interspecies relations are often recessive in imperial history. When they appear, for example, in histories of European pursuits of Asian spices, bioprospecting for medicines and poisons, gardens and herbariums in Europe, and plantation capitalism, they are written, for good reason, in the thrall of the commodity form, modernizing projects in science and medicine, and the inequities of imperialist trade and colonization. The record of European imperialism's transformation of agriculture, plant species diversity, and agrarian relations of production in colonies remains for posterity on paper, itself a form of plant matter. However, beyond such rubrics, plant matter such as cannabis in British India can help creatively explore the inseparability of plant-human relations, colonial structures, and intoxication.

Cannabis-derived intoxicants in British India were thoroughly imbricated in poetry, custom, ritual, medicine, leisure, and agrarian environments. Upon such histories, imperial medical, legal, and revenue institutions and knowledge systems in the nineteenth century entrenched liberal biology's ordinary conceits.[6] On the one hand, they framed the Indian body as a discrete being and a habitually cannabis-consuming subject prone to racially defined behaviors, and on the other, the cannabis plant as a species that carried different intoxicating powers contained in separable parts of its bodily anatomy. Medical and administrative officials reductively explained the relationship between the two through hereditary lunacy, religious predilection, and "native" poverty. Colonial systems also intervened in the specific lived environments which historically cultured the coevolution of cannabis plant biochemistry and the human body's sensory and neurobiological "history-of-responses." Recent research shows the ingestion of cannabis has, for thousands of years, shaped the evolution of receptors, for essential fatty acids from hemp seed, and cannabinoid ligands, for the cerebral CB1 and the more corporeally distributed CB2 compounds, in human bodies. Within this deep species history, cannabis intoxication, even with frequent ingestion, produced consistently uneven and unpredictable effects, which defined cultures of selfhood and perception as well as political-economic relations of rule, sovereignty, state formation, and commodity production.

Intoxication under ganja was always more than an experience oriented merely toward pleasure, devotion, therapy, or healing. As a specific manufactured form

of cannabis flowers, ganja in British India illuminated how cannabis' materiality derived from its ability to intoxicate specific Indian bodies *differently*.[7] Not dead, living, or inert matter, but matter as potentiality defined ganja's place. As Anglophone narratives of the Indian Rebellion (1857–9) against British colonialism evidenced, the potential ability for seemingly dead plant matter, like ganja or bhang, to energize anything other than rule-abiding subjecthood under empire defined their materiality. Discourses of cannabis-induced violence and insurgency by rebels saturated imperial culture, making what ganja could potentially do much more decisive than what it actually was.[8] Globally, these ideas congealed with similarly racialized ideas in medical knowledge, spanning French, British, Mexican, and US territories that associated experiences of cannabis intoxication with biologically inherent dispositions to lunacy, violence, and public excess.[9] Potentiality itself was estimated through animal beings, particularly in British colonial laboratories, by pharmacologists and chemists administering cannabis to dogs, cats, and monkeys to predict physiological behavior among human colonial subjects.[10]

Among social contexts of ganja consumption in British India, none drew as much colonial attention as devotional use by individual ascetic figures like sadhus and fakirs or collective religious gatherings in public spaces. Sacral meanings, drawing on changing interpretations of Indian religious traditions, fundamentally structured the perception and experience of intoxication for the self and the social collectivity. Such practices, moored in reciprocal and redistributive relations between plant life and human selves, had always been profoundly political. For instance, in the seventeenth-century Deccan, Mahmud Bahri, a Chishti Sufi in the Bijapur Sultanate, wrote scathing critiques of Islamic orthodoxy and ruling power using bhang as both an intoxicant and an allegory.[11] In the nineteenth century, traveling Sufis and collective ganja consumption came to shape the spiritual politics of Muslim soldiers in Deccan armies serving the British empire.[12] At Lahore's Shahidganj structure, long a site of Sikh and Muslim worship, the land was settled as a religious endowment by the British government in Punjab based on the claims of Sikh Mahants, not Muslims, having *first* served cannabis-infused bhang drinks at the site.[13] These politically relevant sacral meanings of cannabis, distributed across formal yet fragile boundaries of Hindu, Islamic, Sikh, and other cosmologies, thus defined, interrupted, and were also accommodated in imperial structures across British India's expansive territory.

Legally and fiscally, ganja was governed using excise infrastructure in British India. As a commodity, the dried, cured, and manufactured ganja visually

looked like rolled flowers and dry twigs flattened into cake-shaped agglutinated greenish brown plant matter. These sat in excise-licensed shops in markets or in state-managed warehouses after manufacture, continuously embodying the substantive potential to enliven the human body, each time differently.[14] By the 1870s, a slew of excise reforms across British-ruled Indian provinces systematized the governance of ganja's potential energies through licenses for production, distribution, wholesale storage, and retail sale. In each province, the political economy of ganja production and circulation pivoted fundamentally around the operationalization of the excise principle through law and state institutions based on pre-emptive calculations of market supply that could meet the social needs of Indian subjects within specified limits. Since social needs were often religious, colonizing ambitions routinely collided with South Asian sacral cosmologies. This inherently challenged imperial claims of dominance—on the one hand, the colonial state fed off revenue from manufactured ganja, while, on the other, it was forced to confront contestations and unpredictable reinterpretations of power and life by South Asian subjects, whether believers or not, under its influence.

Prasanna's unpredictable actions in Doyhata can be reframed within a history of plant matter, sacral cosmologies, and the excise principle under British imperialism. Two aspects preceding that night need fuller address here. First, Prasanna, Lalmohan, Kalachand, and Ananda had all come to know each other as participants in the worship of Trinath, a godhead with a massive following in rural Bengal and Orissa. Collective and communal intoxication by ganja was the primary ritual in a sacral cosmology built around breaking caste barriers and inviting equality through divine sanction. Besides the bound printed form of a poetical text called *Trinather Pancali*, the knife and kolki were important sacral objects in Trinath worship since the 1870s. Second, the ganja itself likely came from a seller licensed and regulated by the British colonial excise administration. Ganja circulation manifested the operation of the excise principle as a sign of empire's pursuit to govern material substances from the cannabis plant's body. However, as the next two sections show, imperial excise operations were always-already also bound up with sacral systems and devotional pursuits in colonial Bengal that simultaneously indexed the colonial marketplace, print culture, and collective intoxication.

Prasanna was, as British excise policy put it, a "habitual but moderate consumer" of ganja. His body had its distinct history of and response to frequent collective intoxication and devotional practice during Trinath worship. Trinath gatherings took place at dusk in market sites across colonial Bengal,

where devotees across castes congregated, shared pipes, and fashioned new spiritual selves based on utopian poetics of potential equality. This was not unique—Bengal's religious movements were intertwined with marketplaces, both as metaphor and physical sites, in devotional poetry and soteriological cosmologies.[15] Market sites were simultaneously also a key locus of regulation under excise laws which expanded in scope after 1870. Excise administration encompassed the production of intoxicants and their circulation in market sites, aiming to govern the entire life-path of the cannabis plant from field to smoking pipe and beyond.

These entangled histories, of excise governance of the economic biographies of intoxicating plant matter from above, and of the social worlds of intoxication and sacral systems of meaning in colonial Bengal from below, shaped Prasanna's disjunctive experience of intoxication and moment of excess. His actions threw open the horizon of possibilities perceived by the intoxicated self under colonial conditions while remaining bound up within flows of plant matter in imperial circuits of revenue and religion.

The Excise Principle

Imperial histories rarely register the logic of excise as a tool of fiscal policy and element of political economy. Conventionally, it remains within nation-bound economic modeling—excise is levied, the argument goes, by a state upon its "own" citizens within an "inland" market. Derived from the Dutch word *excijs*, in ordinarily English, it literally means any tax placed upon a commodity or service, but within an ostensibly domestic or national economy. Excise was key to early modern Dutch imperial state building. Alongside land taxes within the formal boundaries of the seven provinces that rebelled against Habsburg Spain, excise helped establish the political legitimacy of the Dutch Republic after 1580. It complemented customs levies on revenue from overseas outposts of the Dutch V.O.C and G.W.C. In this foundational example of large-scale public finance and debt in modern economic history, customs on imported goods and excise on home products thus cemented a colony-metropole binary.[16]

Dutch Republicanism echoed loudly abroad and in interregnum England, perspectives of Dutch rebels and traders circulated swiftly.[17] Historians have noted how comparisons with new private property laws, the flourishing of art, toleration of religious dissent, the idea of a commonwealth, and state expenditure on the poor in the Dutch Republic interceded in emerging horizons of political

and economic ambitions in seventeenth-century England.[18] There, the century witnessed popular revolt, radical mobilization, parliamentary expansion, regicide, growing slavery and colonization in the Americas, emigrations of colonists and religious minorities from Britain, and repeated wars and counterinsurgency in Ireland that entrenched severe fiscal indebtedness. Amid the heated years of the English Civil War, in 1643, excise was instituted through parliamentary legislation modeled on Dutch example following tense debates. While it has understandably remained a minor blip in historiography, it was crucial to the long-term emergence of a revenue-dependent large state form and quickly became common sense in debates on fiscal policy and military expenditure.[19] As Josiah Child famously argued in 1668, well before he was humiliated by Sidi Yakut and Aurangzeb Alamgir into ending his career helming the English East India Company, "the loweness of [Dutch] customs and the height of their excise" was worthy of imitation by England because excise was "certainly the most equal and indifferent Tax in the World, and least prejudicial to any People."[20] In other words, indirect taxes on commodity trade were imagined to work without regard to concerns of political legitimacy and sovereignty that underlay land and private estate taxes.

The emergence and implementation of excise as a category of public taxation were severely uneven in England and colonial Ireland. While excise did connote a tax on home goods, particularly liquors and some cloths, often it was also charged on export articles in the late seventeenth century.[21] Leaky boundaries of definitions persisted despite the intensification of state taxation after 1688 and relations between lay wholesalers and manufacturers asked to pay excise, and those tasked with collecting it, were a constant site of contestation.[22] On the one hand, the pressures of state borrowing defined the excise office's growth in capacity, and on the other, ordinary people came to despise, evade, and sometimes violently resist the figure of the wicked exciseman.[23] Common, though unorganized, antagonisms toward excise never became effective enough to eradicate it and eventually, ideas of state sovereignty and English liberty in popular discourse latched onto excise as a crucial necessity for both ideals. As an indirect tax meant to affect everyone equally, excise complemented other bases of tax revenue to sustain the idea of a credit-dependent state tied to cycles of interest payments, military spending, and public investments. Unlike customs, which depended on maritime trade and were often volatile, and tariffs, always a two-edged sword in inter-imperial trade wars, excise in the metropole was cast by proponents as not-too-exploitative and amenable to reform from within.

The East India Company instituted excises on salt manufacturers and tobacco sellers in its territories in Bengal years before capturing the diwani on land in eastern India in 1765 and paved the way for the Bombay and Madras Presidency administrations to do the same by the 1810s.[24] By 1789, the settler constitution of the United States had explicitly tied excises, previously charged on liquors in the Massachusetts colony, to payments of debt and defense of territorial sovereignty. The basket of commodities subjected to excise in the eighteenth-century British empire often shifted depending on revenue needs and political priorities—salt, meat, and sometimes particular cloths were often added onto liquors, spirits, and other intoxicants.

However, a bedrock *excise principle* has consistently underwritten the shifting scope of the excisable. From the beginning, the most enduring presence in the category of the excisable has been a consumable article of intoxication objectified as a "finished" commodity. This enfolds an implicit assumption that the figure turning raw substance into commodified object through manufacturing processes like fermentation, drying, and distillation must pay a tax on sale that reflects both the value produced through manufacture and the potential effects of consumption in individual and social bodies. This *excise principle* underwrites a second constitutive distinction—it distinguishes a necessary and essential comestible from others that are not by contradistinction of the nutritive and medicinal (often as solid matter) on one end and the intoxicating (often liquid or smoke) on another. As Henry Parker, the noted defender of Parliament against royalists, put it in a 1647 pro-excise pamphlet that later defined many Anglophone imperial debates, commodities "necessary for the sustenance of man's life" ought to be separated by excise from those were "merely superfluous."[25] This sustenance-superfluity calculus could envelop various permutations. Parker, for instance, desired excise as a penalty on "luxuries," but while "small beere" was a necessity to him, tavern-keepers and brewing victuallers deserved heavy excise because he considered them "most addicted to their private commodity."[26]

The binary of necessity and luxury, or sustenance and superfluity, placed commodities on a spectrum of relations with the human body. Those that desirably and modestly affected its reproduction were juxtaposed against others deemed gratuitous, disruptive, or simply in excess of what is essential. So, the nutritive form of barley as cleaned and husked grain could remain outside the excisable while the same grain, fermented into malt, beer, or whiskey could not. Finally, this shifting scope of the excisable also reflected changing cultural notions of benign stimulation and powerful addiction—refined sugar, for instance, is rarely identified as addictive in fiscal policy and different forms of

tea have drifted in and out of excise lists depending on the ingredients in the final package and geopolitical agreements underlying trade.[27]

In excise economics, empire and imperialism lie just under the surface calling for a richer materialist account. The excise principle appears less impactful because the dominant frame of modern imperial history, for good reason, has been the extraction of surplus away from colonies into metropolitan possession, whereas volumes of excise revenue, while less than land revenue, upheld infrastructural investments *within* the colony. Despite the façade of indirectness however, the excise principle, implemented through fiscal-legal tools like Excise Acts, governed a range of *subject-relations* under empire. The ambit of excise included intimate histories of human and plant coevolution, use, and pleasure and the excise principle intervened thoroughly in and influenced life-paths of plant matter and cultural histories of sacral and spiritual life.

The excise principle was the most systematic vector shaping the Indian cannabis plant's relationship to empire, especially in phases of sweeping imperial reform. During Cornwallis' tenure, the passage of Regulation XXXIV in 1793 institutionalized taxation on all liquors and intoxicating drugs, including all cannabis products, without regard to meaning or use, and placed heavy fines on any manufacturing or vending without a license from the state.[28] British rule involved absorbing existing forms of power and authority and reconciling them into colonial structures—the *abkari* previously charged in Mughal Bengal upon liquor became the category of tax that closely resembled the original excise principle. Separate Abkari officials across India began overseeing excise collection on intoxicants and managing their production by the early nineteenth century. With Dalhousie's autocratic reign in Bengal (1848–56), excise collection was systematized using annually revised rate charts, investments in warehouses and customs houses, new salaried police positions within Excise departments for prevention of smuggling and evasion, annual published reports that helped predict rates of duty and supply controls for subsequent years, streamlined categories in imperial budgets for allocating excise revenues, and organized manuals and handbooks for excise collectors touring each district that included specifics of demography, weights, measures, geography, and even prior criminal cases prosecuted.

Across eastern India, cannabis production and consumption varied richly. *Jessori* gol ganja and choor ganja, both made from flowering tops and stalks, circulated in the agrarian districts of Jessore, Rajshahi, Bogra, Dinajpur, Dacca, Pabna, Rangpur, and Mymensingh while *Garhjati* ganja produced in the Garhjats of Orissa was supplied in the temple towns of Puri, Cuttack, and other regional

markets. Each had different modes of manufacture, preparation, and intoxicating principle. Other cannabis substances like bhang and siddhi, made from leaves or dried plant refuse, were cultivated more sporadically. Since they weren't meant to be as potent, they could be from individual homesteads or small-scale farms in places like Bhagalpur. Charas, the agglutinated resin from the plant's body, was imported into British India from Nepal, and after that ceased in the 1880s, via Amritsar and Mirzapur in Punjab and the northwestern provinces. By the mid-nineteenth century, the cultivation and manufacture of Jessore-made ganja had permanently shifted northward to Naogaon in Rajshahi. After 1858, as excise officials bounded cultivation mahals in Naogaon, the Garhjats, and small lands inside Tributary States like Mayurbhanj and Keonjhar under Indian dynasts, they also enforced suppression of cultivation everywhere else in the Presidency. Special deputy collectors, excise policemen, peons, clerks, goladars (warehouse supervisors), and customs houses across towns and cities constituted the governing machinery of regulated cannabis. At prices and tax rates set by the Excise administration based on calculations of previous year's demand and output, the Board of Revenue and Financial Department received reports annually on changes in production, consumption, and bureaucratic management of opium, cannabis, and various liquors.

Of all cannabis commodities, ganja from Naogaon held the pride of place—to speak of ganja in colonial Bengal and eastern India was to speak of the labors of Naogaon's cultivators. This was not for lack of trying—in 1891, when the Sibpur Experimental Farm attempted to develop their own ganja, it was an abject failure. Collectors of Dacca, Patna, and Mymensingh considered the sample "unsaleable" and reinforced to the Excise Department how "outturn depends very much on the season and the care taken during cultivation."[29] Naogaon's fields, known for intensely careful cultivation, were thoroughly gendered sites. Reliant on intergenerational knowledge about how to culture the plant's sexuality and contain its natural gender variance, Naogaon's families were known for nurturing plants from sapling nurseries all the way till packaged commodity to ensure a product with the highest ratio of intoxicant principle to mass.[30]

British colonial excise shops retailed Naogaon ganja to ordinary buyers like Prasanna. In 1894, the Indian Hemp Drugs Commission (IHDC) called them "habitual yet moderate consumers" after it resolved by majority to oppose cannabis prohibition in India, recommended more vigilant policing and (re)calculations of excise rates to manipulate the potential effects of cannabis consumption, and established that no provable link existed between cannabis use and insanity. In the 1905 appeal to the judgment against Prasanna,

British judges echoed this argument. The commission had concluded that most Indian bodies were historically acclimated to intoxication because of socially widespread everyday religious practices that legitimized moderate cannabis use. In Bengal, it decided that "excessive consumers must be regarded as bearing a small proportion to the moderate—certainly not more than 5 percent."[31] The figure of a moderate consumer's body, with a deep history of habit, now faced a shop counter with ganja stocks calculated in advance by a state that considered excise necessary to ensure both the continuance of a habit *and* its moderation.

The intersection of state-calculated supply of ganja and the habitual but moderate protagonist historically cultured via intoxication manifested in the foci of imperial intervention in economic life, physical market sites. Spatially, market organization in colonial Bengal was dynamically layered. Besides the *haat* (recurrent rural markets), *ganj* (wholesale grain market), and *bazar* or *katra* (established market site), smaller markets, especially in the eighteenth century, grew depending on local need to sell surplus produce, individual charters by ruling figures like Nazims, religious endowments by powerful landed families to establish markets around temple sites or Sufi shrines, and the occurrence of fairs and festivals.[32] The management of commercial exchange, establishing markets, and imposing assorted taxes helped fortify rank and status among rural classes and reproduce specific relations of production and exchange. Many Company officials consciously imbibed and performed these practices. Commonly, in *haats*, sellers of intoxicants—particularly local brews and cannabis preparations—lined up alongside or nearby those who sold other low-value consumer items like utensils, wax, and lanterns. In smaller markets, ganja could be found with the *mudi* (grocer).

Markets were also the backbone of Trinath worship. In 1872, when the first *Trinather Pancali* was published, 5,354 shops across Bengal sold state-licensed ganja and 148 shops retailed only bhang in Patna division.[33] By 1904–5, when Kalachand, Prasanna, Lalmohan, and Ananda regularly convened, the Excise Department abolished the calculation of different rates of taxation for the four sub-categories of Naogaon ganja and introduced a flat rate to make predictions easier, something retailers often appealed.[34] It also regularized the compulsory rent of Rs 2/maund paid by farmers for stocking their output in public warehouses and introduced standard sized regulatory bags for ganja storage, of which small portions circulated to 2,827 ganja shops across 29 districts and 434 bhang shops in 40 districts.[35] As these four men gathered at market sites, they navigated the excise regime's calculative apparatus for maintaining moderation in the Indian body—regulated shops, limits on possession,

proportions of shops to district area, and schemas of average preferences in each district.

However, such speculative operations of the excise principle were also inseparable from sacral rituals and cosmologies that shaped social life in colonial Bengal. Market sites across South Asia simultaneously manifested imperatives of imperial political economy and anchored sacral meaning and devotional community. In the villages of colonial Bengal, the periodical routines of the *haat* and *bajar* and the notion of the world as a commercial marketplace together animated popular corpuses of poetical texts among Baul communities and sects like Sahebdhanis and Kartabhajas.[36] Since 1867, the Trinath movement's rise signaled the *haat* more frontally as something more—a space of social intoxication where human and more-than-human life worlds collided with plant matter and animated utopian possibilities.

Sacral Binds

In 1867, more than thirty years before Kalachand's disciples engaged in their theater of life and death in Doyhata, another Brahmin man, who had studied in the English-medium Dacca Normal School before working as a salaried teacher and a Police Department employee, found himself disillusioned with both modern colonial routines and the rigidities of caste norms.[37] This man, Ananda Chandra Kali, was known to be a skilled poet who consumed two pice worth of ganja every day. In 1893, when Abhilas Chandra Mukherjee, Bengal's Second Inspector of Excise, inquired into Kali's life, he heard about a man, born in Dhamrai (Dacca District), who sought a god who could be worshipped "by all classes, rich and poor, Brahman and Chandal, and by all creeds, Saktas, Baishnavas, and Shaivas." Using "ordinary and inexpensive things, such as ganja, oil, and betel-leaf," Kali had created the sacral cosmology of a godhead named Trinath. Having begun in Tangail, about sixty miles from Doyhata, the practice of Trinath worship spread out across markets and homes in Mymensingh, Dacca, Faridpur, Backergunge, Noakhali, Tippera, Chittagong, Bogra, Sylhet, and the Serajgunj side of Pabna district by the 1890s.[38] In 1883, Dacca's renowned English doctor James Wise noted how Trinath worship was attracting "crowds of uneducated and credulous Chandals, Kaibarttas, and Tiyars throughout eastern Bengal," to be entertained by "professional musicians with bela and sarangi, varieties of the violin" as opposed to the commonly used "mirdang and kartal." According to him, one couldn't "account for such a creed unless we believe that

the Brahmanical hold on the people is relaxing and that the masses blindly accept any worship which recognises the equality and brotherhood of all classes of mankind."[39]

Wise was yards off the mark—the crowds were more complex than simple signs of relaxing Brahminism. But they indeed signaled unique developments on the ground in British colonial Bengal. Since the eighteenth century, as the heterodox emphasis in Chaitanya's Vaishnavism upon worship through mass congregation, *kirtan* (collective song), and *bhava* (embodied emotion) receded against the power of dominant Brahmin clans, several alternative egalitarian traditions emerged among the agrarian poor and historically oppressed Dalit caste groups. Drawing on the emphasis of sameness between high and low and the simplicity of human essence in Sahajiya traditions, devotional communities like the Kartabhaja, Shahebdhani, Balakdashi, Balahadi, and Matua grew into sects around the figures of specific spiritual masters, a corpus of poetry and song, cosmologies of the world's origins and futures, and practices of worship, love, and eroticism that embodied the principles of each sect.[40] Spiritual masters, whether called a pir, a fakir, gossain, or a guru, drew gatherings across Hindu and Muslim families for their teachings. Sects combined discourses on householder norms, emphasis on or limits of sexual discipline, criticisms of Nabadwip Brahmins who claimed traditional Vaishnavite authority, and pilgrimages to the sites of origin where each sect's practices were celebrated periodically.

Trinath worship sought altogether different means and ends while borrowing strategically from such dissident fluid spiritual worlds of rural Bengal. It required no spiritual master and rejected student-disciple relations, had no specific orally transmitted corpus of songs, no initiation rites, or secret esoteric and erotic practices. While it drew on Bhakti traditions and *gaan* (song), it eschewed addressing either caste-based occupations or the concerns of running rural households. Trinath worship embraced intoxication directly, especially at dusk at sites where a rural market ran by day. Trinath worship took the challenge to caste-based commensality further—the same smoking pipe, filled in turn with each person's contribution of ganja, had to be passed around in the congregation for everyone to touch and draw on. Trinath discourse emphasized worship for fulfilling one's desires and wishes (*manasik puja*) and the godhead's power to deliver from poverty, immiseration, ill health, and disability. While some sects had to emphasize the ability of women becoming spiritual masters and being equal to men, the emphasis on *manasik puja* in Trinath worship drew in, without much effort, greater numbers of women from structurally oppressed caste groups. Trinath congregations happened in public after sunset and

otherwise could be undertaken anywhere, without regard to auspiciousness of specific days in the lunar calendar, or the holiness of an identifiable site. Trinath worship was utterly malleable. For instance, in Faridpur, worshippers created a mud idol (*bedi*) to accompany the worship even though rituals emphasized no idol. In Comilla, Hindu and Muslim agricultural workers, almost all from *antaja* and Dalit castes, began organizing worship every Saturday and individual homes freely worshipped any time. In Assam's Surma valley, Muslim tenants transformed Trinath into Tinlokh Pir with Sufi Islamic provenances and in parts of Dacca district, even elite bhadralok were reported to hold Trinath worship within their households at the insistence of their domestic laborers and tenants.[41] Only two practices remained common—the consumption of ganja in the *kolki*, and beginning worship with a loud and collective reading of the *Trinather Pancali*, the only ritual text of worship.

The first iteration of the *Trinather Pancali* was printed in 1872, roughly five years after the first Trinath fair. It was twelve pages long, listed no author on the cover or inside, and was likely composed by Kali—it contains a sole reference to the poet, "Sri Ananda."[42] Printed at the two most important presses in Dhaka, the first run of a thousand copies sold out by April and necessitated another thousand. Another two thousand were printed within the next eight months. By 1874, the text was so popular with marginalized and untouchable caste groups that a competing new *Panchali* with highly Sankritized ideas appeared in print, signaling bourgeois attempts to fold Trinath into the busy traffic of deities in Brahminical Hinduism. Regardless, the first *Panchali*, republished in 1874 and 1877, far outsold its competitors.[43]

The particularities of the most popular editions help understand how Trinath worship, aided by print cultures that emerged with printing press ownership by educated Indian elites seeking to shape empire on the ground, legitimized popular practices of intoxication and constituted an embodied subject marked by poverty, immiseration, and bodily disability. In these editions, the poet begins immediately with a salvo against the orthodoxies of Brahminical Gaudiya Vaishnavism. He claims that Chaitanya Mahaprabhu, the form of the god Vishnu incarnated in Gauda, the seat of power in medieval and early modern Bengal, had solely aided the world's sinners and left the Lord deeply dissatisfied. The Lord, meaning Trinath, was a single entity more supreme than the conventional trinity of Brahma as creator, Vishnu as preserver, and Shiva as destroyer. Each of them only embodied a portion of the larger divine body. While emphasizing that Chaitanya was not up to the job of delivering mankind from sin, the poet also makes a strategic move of inclusion—Hari, or Vishnu, is only one among

a trinity that *is* Trinath, the lord of heaven, earth, and hell, therefore folding Vishnu into the very existence of Trinath's body and enveloping Vaishnavism into itself.

Within the first tripadi lies a subsequent *jukti*, or reasoning, to a devotee who usually presents all three gods with gifts separately, and for whom the poet feels *doya* (compassion).

> *Kintu jukti kori shar,*
> *Je puja proja-rajar*
> *Shomo shadhye koribaare pare*
> But this [is], I reason,
> Worship, that both subject and king (or lord)
> Can perform with equal means.

In British colonial Bengal, *proja* and *raja* denoted political relations between subject and ruler as well as relations of land and patrimony between lord and tenant. The equality of *shadhyo* or the means used to worship were to be materialized in the offering of *tin drobyo*, or three items, each of equal value—one pice worth of ganja, oil, and betel leaf. The ganja was to be collectively smoked in three *kolki* (pipes) to be passed around, oil used to keep alight a lamp in front of the congregation from dusk until the oil ran out, and betel leaf as a holy offering. Of the three, *gonjika* (the feminized noun for ganja) was the most adept at pleasing both Trinath and the devotee, and could be bought at any market or grocer's shop. Where local cannabis sellers were unavailable, devotees could offer plants grown in their homesteads.

The narrative plot of the *poyar* posited Trinath's emergence out of necessity to quell poverty (*doridrer doridrota*), irrespective of the devotee's rank or social status and their place of origin. In the original story, a poor man loses his cow and calf at dusk. Trinath's divine voice tells him to look for three paisa hidden at the roots of a tree and instructs him to go to the *haat* to buy ganja, oil, and betel leaf for a paisa each. The vendor sells him the ganja and betel leaf but the man didn't have a bowl for the oil. The voice of Trinath tells him to use his waistcloth to collect oil. Though incredulous, the man asks the vendor to pour the oil in his waistcloth (*kapor*/*anchol*). The *mudi*, personifying the conceits of the marketplace, decides to trick him by claiming that he poured the oil but it simply filtered through the cloth. To bolster his lie, the grocer starts to smear the cloth lightly with a dash of oil in a cup. But each drop he pours disappears instantly, exhausting all his oil, leaving the cloth dry. The terrified *mudi* asks the man who he really is, only to be told that he is merely a servant of Trinath. The man returns

to conduct his *manasik/manasiya puja* to fulfil his desire for his cattle while the vendor, on learning the whole story, announces the glory of Trinath to everyone else in the *haat*.[44]

The scene shifts from markets to chastening Brahmins. With his cattle restored to him, the poor man returns home to begin a regular ritual honoring Trinath with his family under a *kalpataru* tree that granted desires. Lost in prayer, he doesn't notice that his teacher (*kula-guru)*, a domineering Vaishnav Brahmin priest, has arrived with a servant. When the man doesn't respond, the teacher angrily kicks and breaks the *kolki* for ganja. Unbeknownst to the teacher, tragedy strikes his home immediately—his wife and son die the second he kicks Trinath's *kolki*. The teacher and servant later discover the dead bodies that earned the wrath of Yama, the god of death. Once the teacher wails in despair, his plea is answered by another divine voice telling him his folly. He rushes back to his student's family and asks them for forgiveness, submits to Trinath, and vocally renounces Vaishnavism. This guru, described as an *obodh brahmon* (formerly unenlightened Brahmin), then takes the ganja ash from the *kolki* he broke, makes a paste, and smears it upon the bodies of his dead family. Once his family returns to life, he starts a regular Trinath Puja, which helps him find wealth and prosperity. In Doyhata, Kalachand was supposed to enact the same steps on Ananda's corpse.

Thereafter, the text shifts to disability. The newly converted guru invites *protibeshigon* (village folk) to a Trinath Mela (fair), who arrive loudly singing. On the way, a blind old man asks an invitee the reason for all the noise. Upon being answered, the blind man with *trinath-bhokti* (devotion for Trinath) in his heart smears dust from the ground upon his eyes (*dhula-mokkhon*). Miraculously, he gets half his vision back that instant, allowing him to get up and walk toward the *mela*. In the last instance, the blind man meets a lame beggar (*pongu*) who also wishes to go to a Trinath worship but can't because of his disability. The blind man takes the lame beggar upon his shoulders and begins walking to the gathering, but halfway there, the disabled man finds himself able to walk again. The last song closes the text praising Trinath's power to cure all disease (*rog-baron*) before emphasizing that the ritual needs only devotional singing, echoing older traditions of sonic embodiment, and no sanction of prior religious texts or the recitation of shlokas or mantras, usually in Sanskrit or chaste (*sadhu*) Bengali.[45]

Panchalis, like all other poetic forms in Bengal, were transmitted orally even after printing grew from the mid-nineteenth century.[46] Oral performances included *kothoks* (elocutionists) or *pathoks* (reciters) who performed from memory or used a printed copy, accompanied by groups of *gayen* (singer) and

bayen (percussionist or musician) who were often women and came from lower castes like the Bhuinmalis in Doyhata.[47] Singers and elocutionists often weren't authors but claimed to speak in the name of divinities who had appeared in their dreams. They were expected to provide commentary and respond to queries from devotees and onlookers, evidencing forms of "ornamentation" that centered the author and performer, beyond just the text, in a relationship within an actual village or market gathering.[48] Subsequent *Trinather Pancalis* printed by Laxman Basak at the Bangla Jantralay follows the same narrative with minor variations. The second edition only alters the word ganjika with siddhi, implying the drink made of ganja leaves.[49] The author here also added a couplet to influence subsequent sales and reinforce the sacral role that the printed stapled form of the *Panchali* had come to play:

> *Bhokti te panchali jodi ghorey deo sthan*
> *Oisshorjo baribe taar boro hobe maan.*
> In devotion, should one keep a copy of the panchali at home
> One shall earn both wealth and respect.[50]

Maan, or respect, along with emphases on means-of-worship and wealth indexed caste, class, and social status within an embodied relationship between self, text, God, and collective intoxication. Turning the panchali itself into a material object, possessed and kept at home as an inheritable tangible carrier of such embodied relationships, reinforced Trinath's popularity. The five editions that sold in thousands were distributed from three district administrative centers—Dacca, Mymensingh, and Faridpur—and one famous village, Dhamrai in Dacca district. Dhamrai held the popular annual Madhab Rath festival, was reputed to be a site the famous Sufi Hazrat Shah Jalal visited, and was the birthplace of Ananda Kali. As a sacral object, the book form of the *Panchali* scaffolded aspirations of self-improvement and social standing among devotees, for whom the individual copy in the home existed in simultaneous relation with the periodic aural and sonic congregational practice of collective intoxication and music, together reinforcing gradually the miraculous powers and counterhegemonic possibilities of Trinath worship.

Trinath worship's rematerialization of older tastes for cannabis among marginalized castes and groups like fishermen and palki-bearers, that performed intensive physical labor, into a new cosmology with utopian possibilities to be imagined through congregational intoxication and breaking of caste taboos, helped legitimize ordinary desires of self-transformation. Worship for wish-fulfilment rendered such self-transformation more individualistic than collective.

Within this sacral system, ganja, smoking pipes, and related objects anchored utopian imaginaries that were inherently critiques of an impoverished and stifling colonial present. Prasanna's exposure to the aural, sonic, spiritual, and utopian world of Trinath worship had cultured his consumption of ganja. Ultimately, in his actions in Doyhata, a more-than-human force like Trinath, the pathways of plant matter like ganja, the deep histories of sacral meanings mobilized through market sites, and the economic conditions of British colonial rule together structured a disjunctive experience of intoxication that exceeded the bounds of how excise regimes governed superfluous substances like intoxicants.

Empire Histories under the Influence

The inseparability of human and intoxicant plant matter reframes empire history. Prasanna's embodied history of devotional experience and belief in a radical overturning of a colonial and Brahminical order of things cultured his consumption of ganja over time. His surrounding pathways of ganja were governed through excise regimes whose logic was rooted in early modern imperial state-formation but recalibrated in contingent colonial conditions in British India. Market sites, where the colonial state focused its gaze, also generated new sacral worlds where colonially managed intoxicants generated unpredictable histories. Intoxication, as a historically significant temporal process, enabled moments of excess beyond the bounds of caste, class, and gender norms and disrupted categories of liberal colonial governance. In Ananda's murder trial, British and Indian judicial interpretations centered on the individual agency of each accused person, evidencing imperatives to tidily separate subject, event, cause, and effect in modern colonial legal regimes. In fact, asking whether Prasanna alone was guilty of murder under the intoxicating influence of ganja circulating in British Bengal missed how the inseparability of plant, human, self, deity, and object structured life under empire.

Intoxication bound plant matter, social environment, perception, and the body in unpredictable ways to leave little room for determinism. Sustained ganja consumption, Prasanna's knife and *kolki*, references to Yama's defeat, Kalachand's emphasis on miraculous powers of *kolki*-ash, and mockery of Brahminism all mirrored the cosmology of the Trinath godhead, which itself combined other fluid religious histories. Textual, sonic, and congregational practices cultured prior pursuits of ganja intoxication by each protagonist in Doyhata and imperial regulations propelled the excise principle in colonial conditions to make

such pursuits possible. Colonial classificatory grids and liberal imperatives in disciplinary botany, law, and political economy routinely refused or flattened biocultural relations between humans and cannabis plants, of using and being used as a mode of perpetuating the species history of both creatures in British India.

Taking Samantha Frost's invitation to see the biocultural as definitive of species history and situating it within the binds of imperialism, devotion, and political economy illuminate how lives and actions under imperial domination were shaped across scales. Such scales demand attention to crucial intersections like that of the longer histories of the excise principle in imperial rule and sacral cosmologies of intoxication in the colony. Within these intersections, the capacities of corporealized bodies generated histories under the influence. The non-contemporaneity between habitat and a living being's embodied past, molded through sacral meanings and excise regimes, exposes empire as an effect of collisions between a dynamic specie like cannabis, its immanently generative matter like ganja, everyday Indian life worlds, and the transgressive selves of human beings inhabiting colonial structures. In materialist and biocultural terms, the embodied longer temporality of intoxication pushes against conventional liberal seams in empire history and helps think about how a single disjunctive experience of intoxication might illuminate structural contradictions, entanglements, contingencies, and transgressions that marked empire's pursuit of intoxicating plant matter amid intensifying colonial rule in modern Bengal.

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Notes

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14 Following the Excise Act (1878), the Bengal administration deemed more than two years old warehouse ganja dead, having lost potential and thus value. Stocks were burnt in public pyres.

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25 Coffman, *Excise Taxation*, 57–8, 183–9; Paul Boyer, "Borrowed Rhetoric: The Massachusetts Excise Controversy of 1754." *The William and Mary Quarterly* 21, no. 3 (1964): 328–51; Michael Braddick, "Popular Politics and Public Policy: The Excise Riot at Smithfield in February 1647 and Its Aftermath." *The Historical Journal* 34, no. 3 (1991): 597–626; Kenneth Andrews, *Trade, Plunder, and Settlement: Maritime Enterprise and the Genesis of the British Empire 1480–1630* (Cambridge: Cambridge University Press, 1984).

26 See Coffman, *Excise Taxation*, 183–9.

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30 Utathya Chattopadhyaya, "Bodies That Cohere: Notes on Ganja and Gender in Colonial India." *Indian Journal of Gender Studies* 30, no. 1 (2023): 55–77.

31 *Report of the Indian Hemp Drugs Commission* vol. 1 (Shimla: Government Central Printing Office, 1894), 130. [Hereafter, *IHDC Report*].

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34 *Excise Report 1904–05* (Calcutta: Calcutta Central Press Company, 1905), 3.

35 Ibid., 14; *Excise Report 1903–04* (Calcutta: Calcutta Central Press Company, 1904), 16.

36 Urban, "The Marketplace and the Temple," 1085–114.

37 Appendices, *IHDC Report* vol. III, 253.

38 Ibid. For a fuller analysis, see Utathya Chattopadhyaya, Naogaon and the World: Intoxication, Commoditisation, and Imperialism in South Asia and the Indian Ocean, 1840-1940. Unpublished PhD Dissertation. University of Illinois at Urbana-Champaign, 2018.

39 All three castes were predominantly fisherfolk and deemed untouchable by Brahminism. Mehtars, the other caste that worshipped Trinath, were manual scavengers of human waste. James Wise, *Notes on the Races, Castes and Trades of Eastern Bengal* (London: Harrison and Sons, 1883 [repub. Routledge, 2017]).

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41 For details, Chattopadhyaya, "Naogaon and the World."

42 As a literary device, instead of nominating an author, poets would insert their names as interlocutors within the text to complicate the relationship between characters in the text. The cover folio and verso name no author but the Imperial Library's preserved copy lists Ananda Chandra Raya as author. British Library/ Vernacular Tracts/1451/1872. [Hereafter BL/VT/].

43 Chattopadhyaya, "Naogaon and the World."

44 BL/VT/1451/1872/pg. 6–8.

45 BL/VT/1451/1872/pg. 12.

46 Sukumar Sen, *Bangla Sahityer Itihas* vol. I (Kolkata: Ananda Publishers, 2001).

47 Sarkar, "The Kalki-Avatar of Bikrampur," 12; Thibaut d'Hubert, "Patterns of Composition in the Seventeenth Century Bengali Literature of Arakan," in Francesca Orsini and Katherine Schofield (eds.), *Tellings and Texts: Music, Literature and Performance in North India* (Cambridge: Open Book Publishers, 2015), 423–43.

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49 BL/VT/ 965/1872/pg. 2.

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5

"The Royal Sacred Hairy Family of Burmah": Human Difference and Biocultural Empire in the Nineteenth Century

Jonathan Saha

Imagine two men conversing on the deck of a steamer headed for England in the early summer of 1886. Perhaps the ship had just navigated the Suez Canal and their conversation takes place under the warm Mediterranean sun. One of the men is an engineer employed on the vessel, the other is a passenger. The engineer is headed back home. He writes letters to his parents in Hartlepool, a small port town in the midst of one of the country's largest industrial coal mining areas. In his correspondence he recounts his conversations with this passenger: a man unlike any other he has met before in his life, a man far from home. In fact, the passenger had traveled very little in his life prior to this journey. Up until December 1885, this man had only known the cloistered courtly life of precolonial Mandalay with its ornate palace complex hidden behind moat and high citadel walls: a stark contrast to the bustling, coal-dusted docks of Hartlepool. The engineer is able to hold a conversation with this foreign man across the language barrier due to the Burmese passenger's rapid acquisition of English during the journey. It is a pleasing image of a brief bridge across cultures. But, nevertheless, this was an innocuous encounter that would have been unworthy of report in the local Hartlepool newspaper had it not been for one singular aspect of the passenger's appearance: his face and body were covered with hair, several inches long.[1] This passenger was known as Maung Po Set and he was traveling with his family,[2] several members of which also had this same unusual pattern of hair growth. A few months earlier, the last king of the once-powerful Konbaung dynasty—an empire that at its height ruled over what is today Myanmar, as well as parts of Thailand, Bangladesh, and India—King Thibaw had been deposed. In the wake of his fall, Maung Po Set's family

had been persuaded by an Italian would-be impresario to come to England as a spectacle for paying audiences. They were billed as the "Sacred Hairy Family of Burmah."

Theirs is a story that can be told as one about communications. Or, perhaps, *mis*communications, and often willful ones at that. It is a story of communications that occurred at different scales and between very different types of historical actors. At a geo-political level, their lives were bound up with the Konbaung dynasty's clashes with British power on the Indian subcontinent, first in the guise of the East India Company and then later as the Raj. They also came to be at the center of networks of interacting human actors playing out different societal roles. The family were introduced to colonial officials, leading ethnologists, celebrity scientists, opportunistic showmen, and gawking crowds. These meetings became the substance of journal articles, newspaper reports, book chapters, and advertising pamphlets. Drawings and photographs taken at these meetings were circulated across Europe and America. At a smaller scale still, it is also a story about the specialized proteins that signaled to the stem cells of hair follicles across their skins coordinating how they grew. And, deeper still, a story of the genes passed across generations in the family that produce these proteins.[3] The challenge their story poses to the historian is that of integrating these scales into a coherent narrative. Geographically expansive empires vie for space in the story with keratin and chromosomes. Between these scales, humans—those porous, multicellular organisms hosting myriad bacterial multitudes—go about their lives as if they were autonomous, discrete, agential, individual actors.[4] It is toward reconciling these tensions inherent to this story that Samantha Frost's *Biocultural Creatures* provides something of a guide. Her work shows that cellular activities, even those as apparently banal as hair growth, are contingent upon the environments within which they occur: environments in the broadest sense of the word, encompassing the ecological and the social.[5]

The family attracted such interest because hair and hairiness were a latent but potent sign of human difference for the white, mostly male, imperial actors who met and described the so-called "Hairy Family." Indeed, the label of "hairy" itself was a pathologizing misnomer as only a few members of the known family had this nontypical pattern of hair growth, known in today's medical nomenclature as hypertrichosis. The frequently applied prefix of "sacred" was little more than a brazen marketing ploy drawing upon Orientalist stereotypes with no evidential basis. To these men, this hair was a cypher that needed explaining. They believed that it must have a meaning to be derived from it. Perhaps unsurprisingly, the meanings that they subsequently ascribed to the hair reveal more about *their*

particular cultural, social, and sexual mores than the bodies of Maung Po Set and his family. Members of the family exhibiting this hair growth were met by a variety of white men with differing levels of proximity to the formal structures of British imperial authority throughout the nineteenth century, but most prominently at moments when the Konbaung dynasty was forced into compromises or defeat through military actions with troops levied in India. This chapter grapples with the coincidence in the timing of British imperial expansion into Southeast Asia with the recurrence of this pattern of hair growth across four generations of this family. I argue that following Frost's lead and taking seriously the ecological contingency of human biology can serve to further undercut and defamiliarize the essentializing, pathologizing discourses of white imperialists as they sought to understand human difference. In doing so I hope to upset the implicit framing of abnormality in the medicalization of hair growth which are legacies of these nineteenth-century discourses, legacies that continue to haunt scientific writings on hypertrichosis.[6] The wider claim at stake here is that biology does not have an inherent purpose or meaning that is independent of context or culture.[7] That being so, my broader argument is that while differences between humans have been biologically produced through their embeddedness as organisms of particular environments, the meanings ascribed to those differences historically are the products of particular power relations that are open to critique and challenge.

Frost's work invites us to reconceptualize the human actors in this story in such a way that we can take seriously the role played by hair in imperial history, not merely as a sign, symbol, or cypher, but as a material actant itself. This is not to suggest that hair was a historical agent separable from the people it grew on. Instead, thinking of humans as biocultural creatures enables us to acknowledge that Maung Po Set's visible and unusual pattern of hair growth was a contingent and intrinsic part of the history. For Frost humans are porous and mutable creatures who are shaped and reshaped by environments that they help to shape and reshape. There are two important qualifying elements to this. The first is that this porosity and mutability operates within constraints—parameters that limit the organism's ability to absorb matter or respond to stimuli. These constraints (be they biological or/and cultural) are themselves subject to change over time, but often on different temporalities to the changes in the makeup of an individual human body. The second is that this constrained porosity and mutability occurs in processes across varying levels, from the molecular to the organismic. Cells and bodies do not have clearly demarcated boundaries—no clear inside and outside—but are in a constant process of managing exchange and change.[8] Hair

makes for an excellent example of the biocultural at work; it changes through someone's life-cycle, is shaped by genetic factors, affected by diet, altered by climatic conditions, and modified by social acts. There is a mercurial quality to hair growth as it is informed by deep, long processes in ecology and speciation, as well as by interventions made according to the vagaries of passing fashions. As Crystal B. Lake has shown, eighteenth-century European understandings of hair form something akin to a pre-history of Frost's biocultural framing. It was viewed as a changeable substance with intangible properties that transcended taxonomic categorizations.[9] As we shall see, nineteenth-century Imperial understandings sought to give more fixed, essentialized meaning to hair.

In this chapter, I provide a brief history of the Maung Po Set's family's entanglements with British imperialism. This history is one in which the timescale of the cross-generational occurrence of hypertrichosis in the family was concurrent with that of British imperial expansion in Myanmar. This was not entirely coincidental. Retrospective diagnosis suggests that Maung Po Set inherited the propensity for this pattern of hair growth from at least one of his parents, as it is a trait thought to be autosomal dominant—meaning that if a gene located on a non-sex chromosome from one parent is copied in the child, that child is likely to see the same trait develop over the course of their life cycle.[10] As we shall see, during the reign of the Konbaung dynasty in Myanmar, Maung Po Set's family structures were intact, even fostered—something that is apparent even through the exoticizing imperial representations of their courtly lives. With the dissolution of monarchical rule and the incorporation of Myanmar into British India, their lives were profoundly altered and extant evidence suggests that Maung Po Set was, resultantly, the last of the line through which this genetic trait was passed.[11] Through this narrative I highlight some of the conceptual shifts in British ideas of human difference over the Victorian period. These ideas placed the family, and their hair growth, in a liminal position within foundation dichotomies to contemporaneous biological and cultural thought: human/animal, divine/profane, natural/unnatural, evolved/atavistic. I then conclude by reflecting on the limits to social constructivist approaches to histories of human difference that struggle to take account of physical diversity and potential benefits to a biocultural approach.

The two earliest and most influential British accounts of Maung Po Set's ancestors—at least those of them with the same hair pattern as him—were written immediately following wars between the Konbaung dynasty and the East India Company. The first was drafted in 1827 by John Crawfurd, the East India Company's envoy to the then reigning monarch, King Bagyidaw, to

negotiate the terms of the Burmese ruler's defeat in the First Anglo-Burmese War of 1824–6. The second was written in 1855 by Henry Yule, secretary to the commissioner of the newly acquired East India Company territory of Pegu, a region seceded by the Konbaung Dynasty following their defeat in the Second Anglo-Burmese War of 1852, while on a mission to speak with the recently coronated King Mindon. These wars left the Konbaung state a landlocked rump of its once expansive empire. They also resulted in white British men entering the world of the Burmese courtly capitals, where Maung Po Set's grandfather, Shwe Maung, and mother, Ma Phon, lived. The short paragraphs and sketches that Crawfurd and Yule wrote were widely cited across the empire around the time that they were published[12]; they were quoted by scientists and showmen toward the end of the century,[13] and they have continued to be referred to by biomedical researchers today.[14]

John Crawfurd was forty-seven when he met Shwe Maung, and he was by this time a veteran official and diplomat for the East India Company, having held posts with them for over twenty years in the Northwest Provinces, Penang, Siam, and Singapore. The mission to the Konbaung court in Ava was his last role for the Company. In retirement he drew upon his extensive experience to develop a considerable reputation as an ethnologist, a career that was and remains controversial, not least for his fervent belief in polygenesis (the ideas that human races did not have common ancestors but emerged from independent stock) and the ambivalent role of race in his thought—of which more below. His interest in Shwe Maung, then, should come as no surprise. He was in the midst of negotiating trade relations with the court when, at his request, King Bagyidaw sent Shwe Maung to visit him. The resulting description was not especially sensationalizing or pathologizing, in spite of how quotes from his text were subsequently used. At the time of their meeting, Shwe Maung was thirty years of age, and married with three children. Shwe Maung, whom Crawfurd found to be more intelligent than most of the Burmese people he had met on his mission, recounted his life story and way that his hair had grown. He had been presented to the King by a local Shan ruler once hair had begun to grow on his body and face at age five. Before this he had lived among Lao speaking peoples who lived by the banks of the Salween River that flowed through Myanmar to the Indian Ocean from China.[15] He was married at the age of twenty-two, the King having "having made him a present of a wife," a woman described by Crawfurd as "rather a pretty Burman woman"; these passing comments on gender and sex would become themes in later texts. Shwe Maung informed him that none of his predecessors had grown hair as he had, nor was it known among his "country men."[16]

Slightly built and fine-featured, Shwe Maung did not appear ape-like to Crawfurd, which was apparently what others had suggested of his appearance. The five-inch long hair on his face and body were described as "lank" and "silky." Crawfurd also noted Shwe Maung's unusual teeth, as apparently he possessed only nine of them, none of them molars. He claimed that he had not lost any teeth through disease or accident. Shwe Maung, however, also reported that he did not feel the lack of them. Crawfurd also examined his three children. The eldest two showed no signs of taking after their father. The youngest, he noted, a healthy two-year-old girl, had hair on her ears and very few teeth, but he did not extrapolate from these early signs. Although his description was unembellished with speculations about what hair growth might mean for human difference, it is worth briefly situating this text in its historical moment, as it was a time of significant shifts in the meaning of "race."

At the time Crawfurd was employed by the Company, within British India, the more fluid notions of human difference and somewhat more permissive attitudes to social and sexual encounters across colonizers and colonized (although never free from violence) of the eighteenth century were beginning to give way to harder categorizations based on bodily difference, location, and religion.[17] White, imperial observers of Myanmar, participated within these debates. The German naturalist, Johann Wilhelm Helfer, writing a decade after Crawfurd, was representative of some dominant tropes. He sought to locate Burmese human "races" in the "Great Chain of Being" of creatures from the highest to lowest. Writing in derogatory and denigrating tones of Karen peoples, he was trying to counter a belief circulating amongst some missionaries that they were "the lost tribe of Israel," emphasizing instead what he saw as their rude and primitive nature.[18] For Burmese authorities this was also a period of cultural change. The encounter with the British occurred during a period in which Konbaung rulers were trying to establish greater orthodoxy over religious practice and belief.[19] Conceptions of human difference at this time were fluid, at least to a degree. Proximity to the court and karmic status were the two poles that informed understandings. The negotiations that John Crawfurd was involved with following the First Anglo Burmese War introduced Euro-American conceptions of race and nation through diplomatic correspondence, particularly regarding refugees and prisoners of war. The attempts by the missionary, natural historian, and translator Adoniram Judson to find corresponding terms in Burmese for the treaties between the Company and the Konbaung Dynasty initiated a process of Burmese actors adopting and adapting these racial

conceptions of human difference.[20] In this time of considerable uncertainty and debate around the nature of "race" in both Myanmar and Britain,[21] Crawfurd stands out as an especially difficult thinker to place.

Crawfurd's advocacy of polygenetic explanations for the origins of human races was already apparent by the time he visited the court at Ava. His 1820 landmark publication *History of the Indian Archipelago* received critical appraisals for the implications of its departure from scriptural monogenesis belief. But while polygenesis has been associated with advocacy of human enslavement in the North America, Crawfurd was a radical political thinker strongly opposed to slavery. Nevertheless, he saw different races as having obtained differing levels of civilization, and recognized the possibility of different racial groups to develop and move up the rungs of what he imagined as a civilizational hierarchy, which predictably had Anglo-Saxon European societies occupying the apex. This infused with his passionate advocacy of free trade. For India, he envisioned white settler colonialism as a catalyst for a thriving commercial society on the subcontinent in a post-slavery world. The mutability and fixity of racial difference in his work were ambiguous. The implications of his thinking in terms of his advocacy of equality were ambivalent.[22] With so much about human difference still unsettled and disputed, Shwe Maung's hair was a floating signifier that did not yet signify anything concrete.[23] This is perhaps why this first text was so spartan in terms of its wider implications. When ideas about human difference became more rigid, hypertrichosis began to take on more meaning.

Henry Yule's meeting with Shwe Maung's youngest daughter, Ma Phon, thirty years later took place in a geo-political context reminiscent of Crawfurd's embassy. The Konbaung dynasty had again been defeated in a war with the Company that resulted in a loss of significant territory. Yule was part of a mission to negotiate ongoing relations with the newly crowned King Mindon, a modernizing monarch who sought to reform the state in what remained of his realm. At the time that Yule's *Narrative* was published, scientific and public understandings of human difference, through the concept of race, had been informed by three significant concurrent events: the Great Exhibition and the showing of colonized people at the Crystal Palace in south London; the emergence of theories of evolution based on natural selection, particularly in the talks and writings of Charles Darwin and Alfred Russell Wallace; and the Indian Revolt of 1857.[24] As the diversity of these events suggest, and as Sadiah Qureshi has rightly argued, approaches to studying and conceptualizing human difference remained heterogeneous in the mid-nineteenth century.[25] This heterogeneity notwithstanding, from the 1850s

race became increasingly a bodily, physiological concept—a set of physical, measurable categories.[26] This hardening of racial divisions and the formation of new ethnographic understandings were the context for Yule's description of meeting Ma Phon, even while his text does not itself delve into theorizing the meaning of her hair growth. His awareness of this context was apparent in the tongue-in-cheek natural history taxonomic term he used to describe her now deceased father, Shwe Maung, "Homo Hirsutus"[27]—a turn of phrase that was then used for as a title by the *Leicester Chronicle* for its article quoting Yule's descriptions verbatim.[28] But, as brief and descriptive though his writing on her was, it was pivotal in bringing the attention of the scientific world to her and, perhaps more importantly, the hereditary nature of her atypical hair growth.

The specter of animality informed Yule's account, just as it did Crawfurd's in his disavowal of any ape-like characteristics to Shwe Maung. Yule, however, drew comparisons with dogs, writing that "one started and exclaimed involuntarily as there entered what at first sight seemed an absolute realization in the flesh of the dog-headed Anubis." Attempting to capture the qualities of the hair on her face, he went on to write, "The nose, densely covered with hair as no animal's is that I know of, and with long fine locks curving out and pendent like the wisps of fine Skye terrier's coat, had a most strange appearance." The animality of the hair was offset by her comportment for Yule. Ma Phon's "modest" manners and "feminine" voice enabled him to overcome his "instinctive repulsion." Rather than anything "brutal," to him she resembled a "pleasant-looking woman masquerading."[29] Animals, through comparisons to their bodies, were central to wider studies to understand human difference throughout the nineteenth century. These studies often linked certain humans as closer to animals, representing physical traits as atavistic throwbacks to "lower" forms of being.[30] More banally, Crawfurd and Yule looked to nonhuman creatures for reference points for their readers, supplementing their texts with detailed drawings. With exception of their teeth, Yule and Crawfurd saw no other visible anatomical differences between Shwe Maung and Ma Phon, and the general Burmese populace. Both remarked on the uncanny fineness of their hair when making animal comparisons. Perhaps their expectations were that the hair itself would resemble that of an animal, rather than being human hair growing in a nontypical pattern. As it is, biologically hair is often distinct to particular species and distinguishable microscopically and genetically. Although more abundant, Ma Poon's hair was no less human than Henry Yule's.[31]

Yule's description hints at the gendered dimension to how Ma Poon was perceived, particularly the implicit heteronormative understandings of sexual

desire at work. As Crawfurd did with Shwe Maung, Yule paid attention to the Ma Poon's unnamed spouse and her two children. It was claimed by the Burmese official accompanying Ma Poon that her husband had been obtained by the then king through the promise of a reward, although "it was long before any one was found bold enough or avaricious enough to venture." This disparaging and rather ungenerous remark sits at odds with his earlier statements on her attractions. As Nadja Durbach has discussed with reference to Krao, a Laotian girl who had similar hair growth as Maung Po Set and who was also exhibited in London and Europe during the 1880s, there was an association between hairiness, beastliness, and licentiousness in the Victorian imagination revealed by attitudes toward hairy women. Witnessing what Durbach terms Krao's "primitive sexuality" served to locate white, British bodies at an evolutionary removes from savage traits while providing titillation to audiences.[32] Yule, in a variation on this theme identified by Durbach, displayed incredulity that Ma Phon could be desirable because of her hair. It was a professed assumption that figured in the work of Darwin, who was familiar with Ma Phon's family from Crawfurd and Yule's descriptions by the 1860s.[33] Inaccurately referring to them as from Siam, Darwin described them as "ludicrously hideous" in a chapter on sexual selection. What he deemed "excessive" body hair was to him a "primordial condition" and that sexual selection had led to women becoming gradually "divested of hair."[34] This underlying assumption that women's body hair was unattractive to the point of being a factor in the development of gender differences in the species, and of differences between races, remained a feature of writings about the family throughout the nineteenth century.

A footnote to Yule's paragraphs on meeting Ma Phon mentions that he was also visited by some albino people who lived at the court. These, he pointed out, were not a distinct race.[35] This brief reference indicates the wider concerns around human difference at play at the time Yule was writing. Sadiah Qureshi's research has shown that while the display of colonized human exhibits in Victorian Britain should not be thought of simply as part of "freak shows," the two practices were connected in the role they played in evidencing human diversity and facilitating the emergence of racial thought.[36] Attempts to bring Ma Phon into these circuits of spectacle and display had already been made when Yule was on his mission. He described how an Italian impresario had offered to marry her in order to bring her to Europe, but that the king had forbidden it. He speculated that the famous showman, P. T. Barnum, would succeed where this man had failed—a prescient statement, although it would take another thirty years for this to pass.[37] Before this, photographs of Ma Phon taken by British officials and soldiers

in Myanmar had started to circulate across Britain and Europe, providing the basis for scholarly publications.[38] In the ensuing discussions the ambivalence of their hair growth within wider conceptions of racial difference were marked. It was pointed out in British and North American medical journals in the 1870s that it was unlikely that the Shwe Maung and Ma Phon represented a "missing link." A Russian father and son also with hypertrichosis frequently discussed in conjunction with the Burmese family made the notion that they were all the descendants of a surviving strand of early human development implausible (although this did not stop such speculation in Barnum's eventual publications on them). Nevertheless, it was suggested that "a new race" could be bred from them using selective breeding.[39] There was both a locative logic to race that constrained medical and ethnographic understandings of hypertrichosis, and a belief in the evolutionary mutability of race that suggested that the hereditary nature of the condition could produce racial difference.

When Yule met Ma Phon in 1855, she had two sons one of which was Maung Po Set when he was still a young boy. Although it is not entirely clear which of the two children he was, it seems mostly likely that he was the younger of the two, whom Yule described as having long tufts of hair around his ears similar to the hair growth noted by Crawfurd on the then infant Ma Phon. In some careful analysis of photographs taken between the 1860s and 1890s for an article on the family in the *Journal of the Royal Society of Medicine* written in 1996, Jan Bondeson and A. E. W. Miles deduced that Maung Po Set also had a daughter with the same pattern of hair growth called Ma Meh. Their deductions, however, were based on an element of inference and a selective reliance on inconsistent accompanying texts—as well, it would seem, on an unstated assumption, that she was not Ma Phon's daughter, born after a gap of a decade after her brothers when she would have been in her early forties. Regardless of how Ma Meh was related to Maung Po Set, she died when she was roughly eighteen.[40] This personal tragedy coincided with the Third Anglo-Burmese War of 1885–6. Accounts of how the final war, which ended with the complete annexation of Myanmar into the Indian Empire, affected the family are inherently unreliable. The words of Ma Phon and Maung Po Set from 1885 onward were mediated by the promoters touring them, seeking to drum up interest in the family and play up intrigue and adventure. Most accounts recount them fleeing the palace complex following the British invasion, occupation, and sacking of Mandalay, often with references made to the despotic rule of "obstinate" King Thibaw.[41] By the 1880s, stories that Ma Phon and Shwe Maung's spouses had only been acquired at the threat of execution were used to embellish the narratives of

Yule and Crawfurd, emphasizing the wider Orientalist view of the Konbaung dynasty as tyrannical.[42] What appears to be consistent across these stories is the connection with Captain Piperno, an Italian solider apparently part of Thibaw's court; although we should perhaps be skeptical of his self-aggrandizing claims to have personally rescued them from hiding in the jungle in a state of near starvation.[43]

Piperno was able to bring them over to London in the summer of 1886 where they were shown at the Egyptian Hall, with the aid of the impresario Guillermo Antonio Farini—a Canadian whose real name was William Leonard Hunter. Farini had several years earlier arranged for Krao to be exhibited to much fanfare.[44] Her tour contributed to a resurgence of speculation about Ma Phon and her son.[45] Farini was also known for promoting Georgious Constantine, or "the Tattooed Man from Burmah." He had appeared in Vienna in the 1870s covered head-to-toe with elaborate tattoos, much to the interest of Europe's anthropologists. As with Ma Phon and Maung Po Set, the story that accompanied Constantine was questionable and played on Orientalist stereotypes. He claimed to be Albanian and to have been a pirate and mercenary in Asia before being captured by the Burmese government and punished for his crimes with a sentence of torture by tattooing. The Burmese origin of the tattoos was confirmed by none other than famed German Orientalist scholar Max Muller, but his story was doubted at the time. The highly embellished, stylized, and extensive tattooing on his body was not used as a punishment by the Burmese state. Instead it appeared that Constantine commissioned the artwork to be done. And, on returning to Europe, he made a career from touring with traveling shows displaying the impressive body art.[46] The family's time at the Egyptian Hall was met with acclaim in the press. Just as it did in the exhibitions of Constantine, entertainment and science overlapped. The family was met by two prominent scientific collaborators of Charles Darwin: the biologist and anthropologist Thomas Huxley,[47] and naturalist John Jenner Weir.[48] The latter's description of the encounter was published in *Nature* and provided the basis for subsequent newspaper reports.

The accounts of their time at the Egyptian Hall, and the tours that followed, vary only slightly in their portrayals of Maung Po Set and his family. For the most part, he was described as intelligent and possessing some artistic skill. He would apparently sit and draw pictures of animals while being on show. His tattooed legs were frequently commented upon. His mother, Ma Phon, was as remarked upon as much for her betel chewing habit as for her hair. Maung Po Set's wife was also occasionally commented upon, in spite of her lack of

hirsute, usually for her cigar smoking, but sometimes more suggestively, as she was in the *Liverpool Mercury* in which she was described as "hardly less interesting a little body than her husband."[49] The notion of them constituting the remnants of an ancient race was recurringly mooted. What they made of their experience is beyond the record. It was not a consideration of the commentators who wrote about them. However they may have felt, their lives were to become even more itinerant. It may have even been chaotic. Piperno evidently had high hopes for this venture. He copyrighted a photograph Maung Po Set soon after they arrived in England at the start of the summer of 1886, a sign of his proprietorial claim to them, as well as his speculative hope for success.[50] But his plans of setting up a circus in Leamington with them in the Autumn fell apart with an acrimonious court case with his partners over the money to be put up to establish the project. The mention of his contribution to the circus of the "hairy family" in court was met with mirth. Following the laughter in the court, the Master of Rolls jokingly inquired whether they "were the children of the plaintiff?" to renewed laughter.[51] Indeed, bad puns on "hair" and jokes about animal-like behavior were also recurrent in the coverage of the family in the press.[52] Piperno lost his case, and by the following year, Yule's prediction of thirty years earlier came to pass, and P. T. Barnum was now promoting them on a yearlong tour of North America from late 1887.

Newspaper reports had it that Barnum had been attempting to acquire the family prior to the Third Anglo Burmese War. Some claimed that he sought contact with them while searching for a white elephant, but had been refused by King Thibaw.[53] In 1884 he had succeeded in bringing a white elephant called Taung Taloung to the London Zoological Gardens en route to New York. He arrived with great expectation and was met with disappointment. The elephant's blotchy, pinkish skin was underwhelming to audiences. Accusations that this was a normal-colored elephant that had been painted abounded. As Sarah Amato has demonstrated in her excellent article on the episode, Barnum was adept at cannily deploying ambiguities about the truth of his exhibits to cultivate curiosity and interest—mixing fact and fiction in his advertising materials. He also played with racial discourses to intrigue and interest his imperial metropolitan audiences.[54] These strategies were again used to promote Ma Phon and Maung Po Set. His booklets and handbills advertising them played up Thibaw's despotism and bloody courtly politics, made rash claims that they represented the last of an ancient race, and quoted extensively from authoritative accounts—Crawfurd and Yule, for the most part, but also scientific writings on them, such as those in the *British Medical Journal* and John Jenner Weir's article in *Nature*. Some of

the information on the materials produced was demonstrably inaccurate, such as the epithet "Hindoo" frequently applied to them.[55] But it was the hereditary nature of the hair growth that Barnum emphasized. In an illustrated history of the family published by Barnum, alongside a sketch of doctors examining Maung Po Set and Ma Poon—depicted with more body hair than that which they actually possessed—the narrative concluded with a paragraph reinforcing the import of their intergenerational trait.

> It should ever be borne in mind that this unearthly and unparalleled contribution of living mysteries from mysterious Asia—birth-place of the human race—while the cap-stones of all physical prodigies, are not monstrosities, or the ephemeral result of unnatural intermixture, but indubitably crowned with the full nobility of primal origin, and the most difficult problems with which ingenious, speculative, ethnological science has had to contend. They are at one a natural revelation; an animate riddle to the wisest; most extraordinarily conspicuous as types of a distinct race, endowed with average human intelligence and a gentle disposition; not to be confounded with those singly exceptional vagaries, or distortions of nature, known as "freaks" which neither inherit nor transmit their accidental and generally repulsive exaggerations and defects.[56]

Science, spectacle, and salacious inferences are crammed into these two run-on sentences. In the flow of this illustrated history, Barnum and the British empire are part of the same historical force that have worked to bring these "wonders" out from the "gross and fanatic superstition of the Orient" into the glare of imperial publics.[57] In Barnum's promotional materials the grotesque is shifted from the family to the Konbaung dynasty. The family is framed as having been "wrested" from "savage King Theebaw," elsewhere referred to as the "monster monarch." Claims that they were "living talismans" weighted down by expensive and lavish jewels heightened the sense of Oriental grandeur.[58] Audiences were invited to indulge their voyeuristic impulses while being encouraged to feel superior to Burmese monarchs who could only view the family through their superstition and savagery, thus unable to truly appreciate the value the family held. But divested from Barnum's colonial rhetoric, it is clear that there was a parallel between the life of this family and the fate of the Konbaung dynasty. From Crawfurd's early description in the 1820s, through Yule and the circulation of images in the middle of the century, to their touring of Britain and North America, as the Burmese empire was eroded by British imperialism the family became more visible to western audiences. This conversion into an imperial spectacle cannot be separated from their rendering as scientific specimens. They became a touchstone for ideas about

human difference. The self-evident heritability of their pattern of hair growth contributed to perennial questions over the origin of the species and the mutability of racial categories over time.

The history of Maung Po Set and his family, or at least the history of how they were seen by others, has been retold above very much in the vein of critical postcolonial studies and cultural historical approaches. I have submitted colonial texts to a close reading to bring out the essentializing and pejorative tropes at work in them, and to identify the wider imperial discourses they operated within. It is an approach that works to denaturalize the colonizer's understandings of the world, attempting to deny their historical role in authoring powerful truth regimes. It is an approach inherently wary of scientific knowledge, tentative in its engagement with questions of ontology.[59] But it would be hard, if not sophistic, to claim that the visible differences between the family and the overwhelming majority of the human population did not play an important part of this story. How then might the biological "reality" of hypertrichosis add to the story? How can it be engaged without pathologizing Shwe Maung, Ma Poon, Maung Po Set, and Ma Meh? One way, I would tentatively suggest, might be to follow Samantha Frost in thinking of biology and culture as inseparable, but in precise ways. It is not so much that biological knowledge is always culturally embedded, although this is an important and persuasive analytical framing.[60] Nor is it to underscore the entanglement of nature and culture in the materiality of human societies—an approach that usefully locates agency in networks connecting a variety of animate actors.[61] Instead, Frost's work emphasizes the point that biological processes *are always* cultural processes, and vice versa. Recognizing the specific biocultural peculiarities of humans through this approach entails paying close attention to what cells, proteins, genes, and organisms do and how they do it without recourse to ascribing intentions or telos to them.

Hair growth provides a good example of biocultural processes at work. It is not a predetermined process written indelibly into an organism's genes, but the result of the intrinsic interactivity of an organism in its environment. Human hair is influenced by numerous factors, including climate, nutrition, life stage, hormones, pollution, and stress.[62] That is before we begin to address the variety of practices humans themselves do to their hair that effects and influences its cycles of growth. The pattern of hair growth termed hypertrichosis can itself be stimulated by a variety of factors, not only the autosomal dominant mode of genetic inheritance believed to have contributed Shwe Maung, Ma Phon, Maung Po Set, and Ma Meh's hair growth.[63] Acknowledging the complexity and diversity of the processes of hair growth can allow us to resist framing the

family's hypertrichosis as an abnormality and view it instead as one outcome in an array of possible patterns of human hair growth. The colonial-era explanations of why the family exhibited this hair growth rested on underlying notions of inherent racial divisions, clear gender binaries, and heteronormative sexual desires structured by both. But, when this ideology is stripped away and discarded, we are left with a family that lived and loved in a space provided by a collapsing empire— intimate ties that enabled the gene that copied the proteins that informed the hair stem cells to grow across their bodies to be passed down from grandparent to great-grandchild.

But there are bigger stakes in acknowledging the biocultural aspects to imperial history beyond the specifics of Maung Po Set's case. These need to be approached with caution and care. Among some of the more profound questions immediately prompted by this particular narrative include how should imperial historians address the physical differences between humans in the past, particularly where these have demonstrably shaped or been shaped by empire? And can these differences be addressed without reinscribing either contemporaneous differentiations made between humans or retrospectively applying current understandings through what are often at best imperfect (most commonly actively hostile and pejorative) historic portrayals of colonized bodies? Regardless of the fraught methodological challenges, Frost's work urges us not to avoid these questions, writing that this would be to "sidestep the ways that the representation and perception of group differences, and the organization of social and political life in accordance with those representations and perceptions, create commonalities in the social and material habitats in which humans are cultured."[64] Yet, while I am sympathetic with the discernible frustration among some historians keen to bring in ecological factors at the lack of engagement with biological processes,[65] I instinctively find myself at some unease at claims that, for example, genes are important agents in shaping imperial desires,[66] or that biometric data can show bodily changes in demographic groups that resulted from colonialism.[67] However, a recognition of the biocultural nature of human difference, at least as I understand its implications, would not lend itself to biologically reductive modes of historical explanation. It is inherently a non-deterministic, multifactored way of analyzing change over time. It provides grounds for skepticism about monocausal explanations for biocultural change.

The inherent complexity of biocultural change provides an intellectual case for taking seriously the effects of the "social and material habitats" produced or undone by imperialism without reifying the category of race. As Frost argues explicitly in her conclusion, dominant, even hegemonic, powers are

unable to exercise the mastery over lived environments in such a ways as to make human difference conform to racial divisions. And, moreover, those subject to these forces as "human biocultural creatures [are able to] contest ideas, resist expectations, and refuse obligation and accommodation in ways that create imaginative, social, and material frictions and striations."[68] To return to Maung Po Set to illustrate these points, rather than as Barnum's "animate riddle"—a phrase that aptly captures how the family were perceived by white imperial audiences—thinking of hair growth as biocultural reveals the colonial assumptions in the questions prompted by the intergenerational trait. Prominent among them was that belief hair growth was one sign of whether a person was fully civilized, fully evolved, fully human. In contrast, engaging with the human as biocultural, as a responsive organism formed through cells managing the traffic of energy between the body and the environment with constraints on its inherent mutability that shifted slowly across generations, and their hair was not a sign of abyssal difference, it was instead a contingent expression of human variety that emerged from processes common to us all.

Notes

1 "A West Hartlepool Steamer's Passengers," *Hartlepool Mail*, May 21, 1886, 3.

2 His name has been transliterated in different ways in the contemporary sources. I have elected to use the most common transliteration for these name elements during this period.

3 Trisia Breitkopf, et al., "The Basic Science of Hair Biology: What Are the Causal Mechanisms for the Disordered Hair Follicle?," *Dermatologic Clinics* 31, no. 1 (2013): 1–19, https://doi.org/10.1016/j.det.2012.08.006.

4 Julia Adeney Thomas, "History and Biology in the Anthropocene: Problems of Scale, Problems of Value." *The American Historical Review* 119, no. 5 (2014): 1587–607.

5 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Durham: Duke University Press, 2016), 78–85.

6 Peter Beighton, "Congenital Hypertrichosis Lanuginosa." *Archives of Dermatology* 101, no. 6 (June 1, 1970): 669–72, https://doi.org/10.1001/archderm.1970.04000060041010; J. Bondeson and A. E. Miles, "The Hairy Family of Burma: A Four Generation Pedigree of Congenital Hypertrichosis Lanuginosa." *Journal of the Royal Society of Medicine* 89, no. 7 (July 1996): 403–8; D. Garcia-Cruz, Le Figuera, and Jm Cantu, "Inherited Hypertrichoses." *Clinical Genetics* 61, no. 5 (2002): 321–9, https://doi.org/10.1034/j.1399-0004.2002.610501.x.

7 Donna Jeanne Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (London; New York: Routledge, 1991); Londa Schiebinger, "Why Mammals Are Called Mammals: Gender Politics in Eighteenth-Century Natural History." *The American Historical Review* 98, no. 2 (1993): 382–411.
8 Frost, *Biocultural Creatures*, 147–59.
9 Crystal B. Lake, "Cultural Representations: Hairstory," in Margaret K. Powell and Joseph Roach (eds.), *A Cultural History of Hair in the Age of Enlightenment* (London: Bloomsbury Publishing, 2022), 171–90.
10 Garcia-Cruz, Figuera, and Cantu, "Inherited Hypertrichoses."
11 Bondeson and Miles, "The Hairy Family of Burma."
12 Months after publication, Yule's description was quoted almost in full in local UK papers: "Singular Phenomenon—the 'Homo Hirsutus,'" *Leicester Chronicle*, June 5, 1858; "A Hirsute Woman," *Morning Chronicle*, March 4, 1858; "A Hirsute Woman," *Hereford Journal*, March 3, 1858; "A Hirsute Woman," *Westmorland Gazette*, March 6, 1858. And also in Australian papers: *The Hobart Town Daily Mercury*, September 25, 1858; "The Hirsute Woman," *The Tarrangower Times and Maldon District Advertiser*, September 14, 1858; and "The Hirsute Woman," *The Age*, August 12, 1858.
13 "Hairy Men." *The British Medical Journal* 2, no. 665 (1873): 383; "Hairy Faced Family." *Scientific American* 32, no. 8 (1875): 119; Bridgeport History Centre, P. T. Barnum Research Collection: *Barnum's Wonders, an Illustrated History of the Hindoo Hairy Family and Other Prodigious and Exclusive Features*, June 17, 1888, 2–6.
14 Bondeson and Miles, "The Hairy Family of Burma."
15 Subsequent texts, including recent works, have inaccurately glossed Shwe Maung's reported autobiography as locating him as being from what is today Laos. But since the Salween River does not flow through Laos, and Lao peoples are dispersed across the upland regions of this section of Zomia, this is an inaccurate assumption.
16 John Crawfurd, *Journal of an Embassy from the Governor-General of India to the Court of Ava in the Year 1827, with an Appendix by Prof. Buckland and Mr. Clift* (London: Henry Colburn, 1829), 184–9.
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6

History in the Water(s): Water and Empire in North America's Wet Center

Adele Perry

The River is the reason we are all here
She carried us all
On her broad brown back
Without complaint
This river's only payment has been our refuse
Refusals
Indifference
But this river
Doesn't need your attention or your inquiry
This river is too busy
Doing what she has always done—
Kicking ass and taking care
The river has never been idle
She was here before you
And she will be here
Long after we're all
Gone
This river is full
This river is family
This river is forever
Because this river
Of course
Is red.

—Katherena Vermette, "This River," *River Woman*
(Toronto: House of Anansi, 2018)

For the last two decades I have lived as a settler near the confluence of two of the rivers that cross northern North America's interior. The Red River bucks the trend and flows north. The Assiniboine is smaller, old and winding. The place where these rivers meet is called Nestaway in Cree, and the Forks in English, and situated within a watery landscape that historian Shannon Stunden Bower calls the "wet prairie."[1] Annishinaabeg (Ojibway), Inninewak (Swampy Cree), and Metis people all developed economies and societies that were honed to a world where there was often more water than land, and where the distinction between the two is variable and not always predictable. Transborder presumptions of a dry, arid North American prairie do not hold here. This is an ancient and storied human landscape, a geography of river and lake, and muskeg, swamp, and bog, of a brittle and tenacious kind of mud that is locally referred to as Red River gumbo. It is only in the long and cold winter that this geography is solid and predictable.

Around here, settler colonialism has been, and continues to be, in no small part a battle about water, where it should be and what it should do, and whose lives it should sustain. We cannot understand this place, and the histories of colonialism that are inseparable from it, unless we take the historicity of water seriously. In *Biocultural Creatures*, Samantha Frost makes the case that humans are one kind of creature, and that, like all creatures, are made and remade in layered, ongoing, and situated interaction with the natural world they inhabit, interact with, and also change. Frost's argument is grounded in careful reading of natural science and intentionally granular in its approach. This attentive marshalling of knowledge aims to intervene in the sustained critique to the presumed distinction between humans and the natural and social worlds they inhabit that has occurred over the past two decades. We can, Frost concludes, think of humans as political subjects "without recapitulating the forms of human exceptionalism that have relied on a disavowal of materiality, embodiment, animality, or dependence."[2]

Frost's approach is not historical *per se*, but *Biocultural Creatures* speaks to the work of history writ large, and histories of colonialism and imperialism in particular. Frost's meticulous focus on the material of carbon, membranes, proteins, and oxygen lends itself to a discipline grounded, for better or for worse, in the specific. *Biological Creatures*' emphasis on how creatures are remade over time and across generations, on "the modes and means of responding to habitat stimuli [that] are passed on from one generation of organisms to the next,"[3] makes room for historians' abiding concern that change be noted and measured across time.

In this contribution, I build on Frost's call to reimagine the natural world by putting it into conversation with a deeply interdisciplinary Indigenous Studies scholarship that situates people amongst other/more than humans and in relationship to an animate natural world, including water. "Indigenous peoples," explains Kim TallBear, "have never forgotten that nonhumans are agential beings engaged in social relations that profoundly shape human lives."[4] Putting Frost's provocation into conversation with this scholarship, I want to ask what histories of colonialism and imperialism look like if we examine humans and human activity within a framework that places them in relations with other/more than humans, and with the world that sustains or imperials us all.

Like Stephanie Rutherford, Jocelyn Thorpe, and L. Anders Sandberg, I think the conversation about the relationship between humans and other/more than humans can and should be explored alongside calls to decolonize research, including research that happens in the archive.[5] These are questions that can be asked in a range of analytic, topical, and geographic locations. But I will ask it of the place I live, as a settler: the meeting of the Red and the Assiniboine Rivers, where water has a history, a history that is not over. In *Across Oceans of Law,* Renisa Mawani shows the possibility of thinking of oceans, those "vast, dynamic, and ungovernable forces," as a method.[6] We can extend this to a range of different kinds of waters, and here I will do so around the lakes and rivers of North America's interior. Sometimes these waters are too much for the people who live with them, flooding banks and washing out roads. These floods often follow studied and calculated human decisions, often made at the expense of Indigenous communities. Every year the waters freeze, though the length of time upon which we might predict useable ice-roads is shrinking as the planet warms. These waters are what run, treated, in city taps, and where on too many reserves poor water supply makes people ill and daily life hard to sustain.

Mapping these histories of water help us see and parse colonialism and dispossession, to Indigenous life in the face of it. They also alert us to other possible ways of reckoning peoples' relationship to water, and ultimately to other parts of the more than human world. In this chapter I begin with some of the connections between waters and empire at the meeting of the Red and Assiniboine Rivers, and the places connected to them. I then turn to three technologies—the ditch, the aqueduct, and the dam—that were crucial to the watery politics of the kind of settler colonialism that was established in the last decades of the nineteenth century and persists to this day. In the stories of ditches, aqueducts, and dams, we can see some of the ways that water is an archive into the biocultural history of empire in this place.

Waters and Empires

Histories of imperialism brought different conceptions of water into conversation and conflict. In Annishnaabemowin, water is nibi. Nibi is not a resource, or an ingredient for human health, but something that "is alive with responsibilities for life."[7] Aimee Craft has argued that nibi is something with a spirit that cannot be owned, and that people live in relationship to. Annishinaabeg law, Craft argues, emphasizes human responsibilities for, rather than rights to, water.[8] This net of relationships and responsibilities exists within a reckoning of the world that registers the agency and the animacy of the natural world. Geographer Deborah McGregor situates this understanding of nibi within an Annishinaabeg knowledge system that sees "all beings in Creation" as having relationships to each other, and responsibilities to one another.[9] Women have particular relationship with and responsibility for nibi.

Water mattered to early colonizers, but in different ways. The Royal Charter of 1670 evoked the doctrine of discovery and gave a private enterprise, the Hudson's Bay Company (HBC), exclusive rights to trade in a space defined by waters: "all the Lands, Countries and Territories, upon the Coasts and Confines of the Seas, Straights, Bays Lakes, Rivers, Creeks and Sounds" that emptied into Hudson Bay.[10] Watersheds, rather than the lines drawn on colonial maps or territories claimed by one company or nation, gave shape to the fur-trade that followed.[11] The material goods left alongside rivers speak to the routine failures and losses of complicated colonial venture that remained meaningful only within what Michael Witgen has called the "Native new world."[12]

Even after the arrival of a certain kind of settler colonialism in the 1810s, this remained an Indigenous world organized around and reckoned through water. The 1817 Treaty negotiated between Lord Selkirk and Inninew and Annishinaabeg leaders including Peguis spoke of "that tract of land adjacent to Red River and Ossiniboyne River," and explained it in relation to a granular understanding of the rivers, their mouths, and forks.[13] The kind of agriculture that developed in the largely Metis Red River Settlement was attenuated to a watery, variable environment. Carts could easily become boats, family households were connected by waterways, and rivers and lakes linked an inland place to Hudson and James Bay, the Atlantic and Pacific Oceans, the Beaufort Sea, and the Gulf of Mexico.[14]

The remaking of these watery lands as part of the settler nation state formed in 1867 required the dispossession of Indigenous people and the reorganization of their territories as the home, or at least potential home, of non-Indigenous

settlers. In 1869 the territories claimed by the Royal Charter were transferred to Canada. Canadian designs on these lands, and those to the north and west, were predicated on shifting ideas of the capacity of these lands and waters to support settler life, imagined in narrow, gendered terms. It also involved different ways of thinking about what the relationship between water, humans, and other/more than humans in the late nineteenth and early twentieth centuries were through ditches, aqueducts, and dams.

Ditch

Drainage was one of the transformations required for these lands to be remade as a space of settler life and agriculture. It was in the 1870s and 1880s that the territories around the meeting of the two rivers were reorganized along settler colonial lines, informed by what historian Ryan Eyford explains as "the goal of transforming western lands into private property, with clear boundaries determined by a uniform survey and registered according to a centralized system of land titles."[15] There was the 1870 *Manitoba Act*, and a year later the first of Canada's numbered treaties was negotiated at Lower Fort Garry. Canada interpreted this treaty, and the ten that followed, through brittle and self-serving ideas of land ownership, and cession.[16] There was much that made drawing the United States-Canada border through Indigenous territories difficult and contested. This included water that it was hard to draw lines through. In the Roseau Swamps of southern Manitoba, officials erected eight timber posts to mark where Canada began, and the United States ended.[17]

In 1872, the Dominion Lands Act laid out the process by which settlers might acquire 160-acre homesteads, particularly if those settlers' lives were configured along normative familial and gendered lines.[18] Much of southern Manitoba was hard to transform without the land itself being transformed by redirecting water through practices of drainage. Early drainage efforts aimed mainly to dry roadways. But settlers demanded a more manageable, less sodden, and unpredictable environment. This was what they had been promised in extravagant provincial advertising, including an 1892 publication promising a "Fruitful Manitoba" with "homes for millions" and "the best wheat land and the richest grazing country under the sun"[19] (see Figure 15). For the kind of fruitful land that this document evoked Manitoba required different bodies on the land, and changes to the land itself. Manitoba passed *The Drainage Act* in 1880 and built 200 miles of drains that diverted water from large wetlands.

Figure 15 *Fruitful Manitoba, Homes for Millions, the Best Wheat Land* (Winnipeg, Manitoba Department of Agriculture and Immigration, 1892), via Internet Archive, https://archive.org/details/fruitfulmanitoba00mani.

Settlers remained aggrieved and asked that the state work to transform the land and, by extension, the waters. In 1896, one settler wrote to the province that it was impossible to "grow anything when the land is so wet," and argued that "if the Government want settlers to come to Manitoba, they ought to make the place fit for them to live in."[20] The 1895 Land Drainage Act created districts and

facilitated drainage for settler communities that wanted it, setting up a scheme where the province would be repaid for their work.[21]

Promises of land ready for settler agriculture were part of the ideological package of prairie colonialism. Gina Starblanket and Dallas Hunt explain that the images of good settler life constitute an "invisible, taken for granted backdrop of prairie life" that renders Indigenous people and life a disruption or threat.[22] It was a vision of southern Manitoba that many late-nineteenth- and early-twentieth-century settlers from a range of ethnic groups literally bought into. First Nations were increasingly concentrated on reserves, which were often wet and flood prone. After 1885, federal policies "made it virtually impossible for reserve agriculture to succeed."[23] First Nations that had good agricultural land increasingly lost it in a process of so-called surrender. Roseau River First Nation's prime agricultural land south-east of Winnipeg was pressured until 60 percent of their lands were "surrendered" in 1903, leaving them with a flood-prone nub.[24] In 1907, the prosperous Annishinaabeg farming community of St. Peter's lost their land in a process so egregious that it was recognized as illegal and immoral even within the context of early-twentieth-century settler Canada.[25] Like many other Indigenous, racialized, and working-class communities, they would be "moved by the state,"[26] in the case to Peguis, located on land so flood prone that it is basically impossible to farm. By the 1910s Manitoba was a patchwork of "settler lands where drainage supports were available and Aboriginal lands where they were not," as Bower explains in her commanding study of the politics of drainage.[27]

Aqueduct

There was often too much water for the liking of settlers and their governments, or not enough of the right kind. The latter was the case for Winnipeg, the name chosen in 1873 for the city that emerged in Red River's place. Winnipeg means bad or murky water in Inninewmowin or Swampy Cree. That the settler men who were remaking this space choose this name speaks to the complicated relationship between the city, water, and colonialism. Non-Indigenous settlement was slow in the 1870s and 1980s but picked up in the last years of the 1890s. The ways that Annishinaabeg, Inninewak, and Metis and people living near the juncture of the Red and Assiniboine rivers had secured drinking water for generations could not sustain the new population. But by the early twentieth century Winnipeg's continued growth as a capitalist and settler city was kept

in check by the quality of the available drinking water. Winnipeg tried a few options: private ones, public ones, river water, well water. Some of this imperiled public health, and others were inconvenient or effectively limited the kind of population and industrial growth that local politicians tended to value.[28] In 1912, Thomas Russ Deacon ran for city mayor on a "Shoal Lake water" platform, pledging his commitment to "providing at once for the people of Winnipeg an ample and permanent supply of pure soft water, which will forever remove the menace now hanging over Winnipeg of a water famine and the consequent danger of conflagration and sickness."[29]

Once Mayor, Deacon, set about engaging different levels of the settler state: municipal, two provinces, the federal government, and because Lake of the Woods crossed the medicine line that artificially divided Canada and the United States, the International Joint Commission.[30] Efforts to build Deacon's Aqueduct began in earnest in 1913. Annishinaabeg communities at Shoal Lake received little mention in the voluminous and often lovingly detailed commentary about the proposed aqueduct that accompanied these legislative maneuvers.[31] In 1906 a newspaper declared "practically no habitation with the exception of a few Indians and an odd mining camp and no possibility of contamination from this source."[32] The drawings produced by the American engineers hired to find Winnipeg a new source of water a year later made brief mention to an "Indian Camp," rendering ancient Indigenous homelands both small and temporary (see Figure 16).

In the popular settler press, Shoal Lake was evoked as a space almost or entirely devoid of people, and thus of sovereignty, but rich in a resource they could study, examine, and ultimately take. In 1913, the City of Winnipeg hired a chemist and an assistant who set up a "laboratory" in the Indian Residential School nearby the Shoal Lake 40 reserve, where they gathered and tested samples. The men found that a cubic centimeter of water include 3,300 datomsense and 20 or 30 chizomyoetes. This work, a journalist explained, "is really an index of the exhaustive nature of the detail being gathered relative to the water supply and shows that every precaution has been and is still being made to secure all data that bears on the question."[33]

The remarkable silence about Indigenous people both reflected and helped to secure the formal dispossession the aqueduct required. This occurred in a few stages. In 1913 and 1914 Shoal Lake 40 First Nation lost their rights to gravel and sand on their reserve.[34] In 1914, the federal government turned to the same tool that was used to take decent farmland from St. Peter's and Roseau River: surrender. In 1914, the federal government put into use a particularly

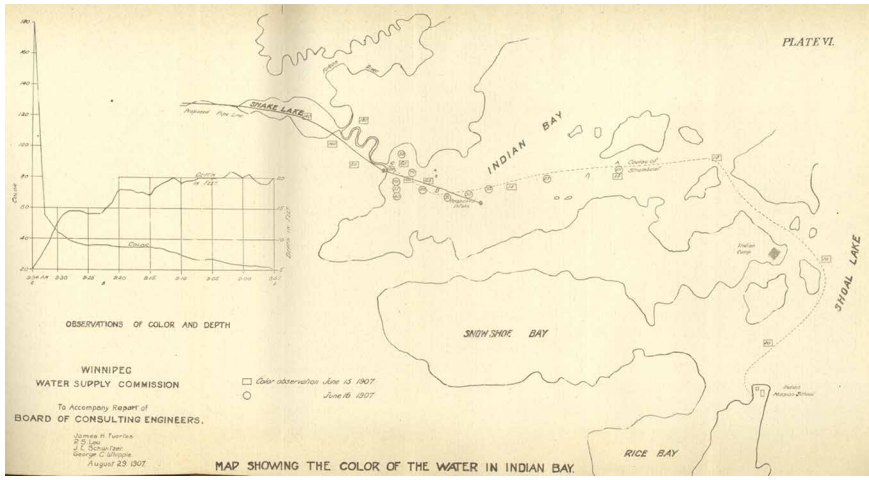

Figure 16 Winnipeg Water Supply Commission, Map Showing the Color of Water in Indian Bay, 1907, from Board of Consulting Engineers, *Report of a New Water Supply for the City of Winnipeg* (Winnipeg, Winnipeg Water Supply Commission, 1907), Plate VI, courtesy University of Manitoba Archives and Special Collections and Manitoba Historical Maps, https://www.flickr.com/photos/manitobamaps/3749403603/in/album-72157621670779697/.

heavy-handed part of the Indian Act to unilaterally take important parts of Shoal Lake 40's reserve lands for a price set unilaterally by Ottawa. In December 1915 the city of Winnipeg wrote a cheque for 1500, and a few months later, Canada confirmed that Winnipeg now owned some 3,500 acres of Shoal Lake 40's reserve lands, trisecting the reserve and rendering its principal community an artificial island.[35] Five years later, Shoal Lake water flowed in Winnipeg taps, and it continues to do so. From 1999 to 2021, Shoal Lake 40 was on an unbroken drinking water advisory, unable to drink the water that the aqueduct delivered to city taps. At the other end of the aqueduct, the city of Winnipeg has enjoyed more than a century of Shoal Lake's good water.

Dam

In twentieth-century northern and western Canada, settler dreams were rooted in the possibility of hydroelectric power and with it, the process of damming. Manitoba's first year-round hydroelectric dam was built in 1906 in Pinawa, a little over 100 kilometers north-east of Winnipeg. In the north-western Ontario

city of Kenora, the Board of Trade explained that "the future development and prosperity of this District depends in a large measure upon the development of manufacturing an industrial enterprise induced and stimulated by assurance of the efficacy and permanency of such water powers aided by navigation facilities and lumbering interests on the Lake of the Woods and tributary waters."[36] Historian Brittany Luby's *Dammed: The Politics of Loss and Survival in Annishinaabe Territory* documents the impact of settler policy and practice in the Treaty Three region. Between 1887 and 1893, settlers constructed a series of dams to modify the flow of water from the Lake of the Woods into the Winnipeg River. Annishinaabeg families navigated around newly unstable ice-roads and adjusted their labor and saving practices to "maximize available resources to meet new circumstances," selling blueberries and saving for when traplines failed.[37] Luby explains how the building of more and larger hydro-generating stations in the second half of the twentieth-century, and with them methyl mercury poisoning, would form a backdrop to a Annishinaabeg experience that was far from the confident postwar prosperity historians reflectively ascribe to the era.

At the same time, Inninew lands in the interconnected watersheds of northern Manitoba and Saskatchewan have been flooded out in the interests of delivering hydro-electric power to the province's south and for export. The same tools of law that relocated First Nations in the south to swampy lands and allowed a colonial government to take reserve land for an aqueduct have largely been put aside. In their place there are "new models of consultation and partnership," but ones that arguably leave Indigenous people with much the same results.[38] Throughout the province, electricity is mainly hydroelectric in origin, much of it from sites along the Nelson River in Inninew territories in northern Manitoba, where First Nations have been repeatedly flooded out of their territories.[39]

Through different laws, infrastructures, and policy mechanisms, First Nations end up under water, again and again. Manitoba's provincial government undertook a series of ambitious water management projects in the middle of the twentieth century. By mid-twentieth century, Manitoba was a province remade by the particular colonial and modern technologies of diversions and dams (see Figure 17). The Red River Floodway, completed in 1968, is the most celebrated of these projects. Recent years have suggested that this "amazing feat of flood control engineering" might not be up for the challenges of a changing climate.[40] This means something different for Indigenous communities who were never protected by the expensive infrastructure projects. In both the province's south and north, Indigenous communities throughout the province continue to deal with routine flooding. Some of this is caused by development,

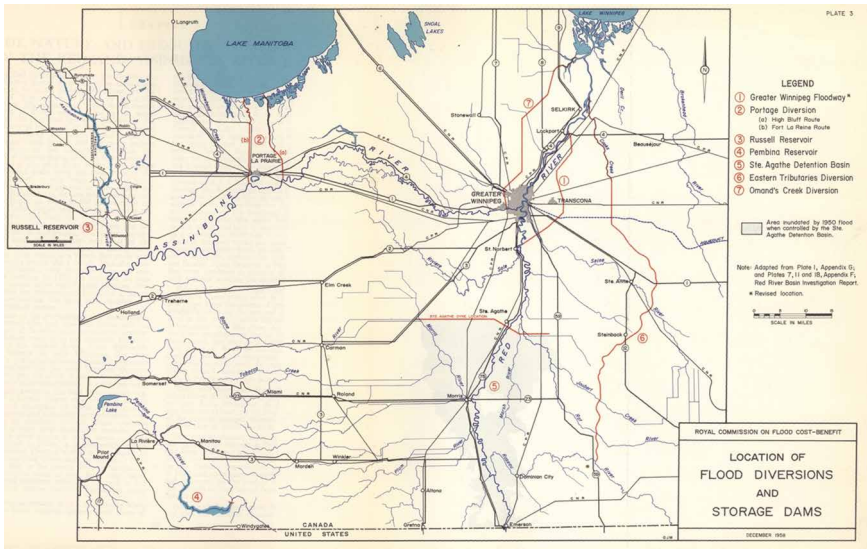

Figure 17 Location of Flood Diversions and Storage Dams, 1958, from *Royal Commission on Flood Cost-Benefit* (Winnipeg, the Commission, 1958), https://www.flickr.com/photos/manitobamaps/4476400871/in/album-72157621670779697/.

especially associated with hydroelectricity. "Development-caused flooding of FN communities in Manitoba is a reoccurring story," explain Shirly Thompson, Myrle Ballard, and Donna Martin.[41] Some of this flooding is caused by high waters, available infrastructure, and how it is put into use. Seventeen First Nations communities and over 4,500 people were impacted by the 2011 "superflood," and the Annishinaabeg community of Lake St Martin lost all their housing and was one of two First Nations who lost their entire land base.[42]

When the Fisher River spilled its banks in 2022, Peguis First Nations experienced its fifth flood in sixteen years. Unlike neighboring settler towns of similar size, Peguis is not protected by a ring dike.[43] The First Nation declared a state of emergency on April 29, 2022, and evacuated more than 1,870 people, mostly to hotel rooms in Winnipeg. A year later, many of them remained in this state of perpetual displacement. On reserve, persistent flooding has exasperated a housing crisis: houses are water-logged and moldy.[44] "The community has faced cultural genocide as a result of the repeated flooding events that drove community members into urban areas such as Winnipeg, where relocation is both costly and culturally damaging," explained then Chief Glenn Hudson and councilors in January 2023.[45]

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Water appears throughout Frost's *Biocultural Creatures,* especially in discussions of membranes and oxygen. Frost lists water as one of the biocultural things that we should consider as agentic, something "we should recognize and bring within the ambit of our theoretical work the fact that they have always been efficacious in their activities in ways that conventionally have been captured under the rubric of agency."[46] Waters have histories. Water also has historians. Water has been a substantial focus for the historiography of the fur-trade, of western North America, and the environment.

But I think we can make more of waters' histories. Water is not singular. The usual definition of water is a colorless, odorless, and tasteless liquid, a compound of oxygen and hydrogen. Geographer Jamie Linton argues that this definition reflects the most recent, influential, and distinctly western of the many failed efforts to fix a definition of what water is. Water, he explains, "is among the least cooperative of things when it comes to being contained in words and in deeds" and is best imaged as "a process rather than a thing."[47] The plurality of water comes into sharp focus when we attend to the relationship between water and colonialism, or, to use the language of this project, to water as a component in the making and remaking of a biocultural empire.

In this chapter I have discussed how water figures in the era of settler colonial rule in and around the meeting of the Red and Assiniboine rivers, in what is now Winnipeg. As a specific kind of colonial project, settler colonialism was consolidated in the years following the incorporation of these territories into Canada. Examining the technologies of ditches, aqueducts, and dams shows us some of the ways that water was harnessed for the settler colonial project. These are each forms of colonial infrastructure, ones that we ought to think of alongside more striking examples, including railways.[48] Ditches, aqueducts, and dams all intervene in water, in nibi. They do so in ways that show how the colonial present continues to resource settlers and their communities and render Indigenous life perilous and fungible, and to make the most massive and historical of inequities seem natural and unchangeable. Around here, reserves are often wet, subject to routine and digitating flooding, and hard to farm. Rural lands are divided into a grid, and likely to be accessible by road, and drained. The city has decent drinking water, even if it comes from 150 kilometers away, and hydroelectricity comes at the flip of a switch. Within the city, the rivers and its banks are sites of possibility, of ways of living differently in urban space. The volunteers who search Winnipeg's riverbanks and drag the bottom of the river in hopes of locating lost loved ones in a crisis of murdered and missing Indigenous

women, girls, and two-sprit people make clear that these waters can also be places of enormous violence and loss.

This history has just been gestured to here: there is so much more. In much of the nineteenth and twentieth centuries, water's history has been one of dispossession and loss. Water has had violence done to it and been harnessed to do colonial violence: to resource and nurture settler life, even when it comes at the tangible expense of Indigenous life. At the same time, these histories of water suggest ways that we might reimagine the relationship between people and water, and all that is contained within and suggested by it. For all the resources poured into managing water to spare the city, urban life in Winnipeg is very much shaped by water, and even with the security of the Floodway built at mid-century, the prospect of flooding. Ethnographer Stephanie Kane writes that residents of Winnipeg and other river cities live "in tension with water's impulsive, implacable, elemental force."[49]

Water reminds us that colonialism has made this world, but remains partial, fallible, and always at risk of being washed away. It shows us that this land holds stories and ways of relating to each other that reflect different ways of being human and living in relationship to each other. This is about the present, but it is also about the future, and what it is possible *in situ*. Kristen Simmons describes the "settler atmospherics" that are the "normative and necessary violences found in settlement—accruing, adapting, and constricting Indigenous and black life in the U.S. settler state."[50] Waters are key parts of the making of this settler atmospherics around here, and they also remind us that there are other possibilities.

These other possibilities can be found in the lands and waters and people who live among them. "Decolonial alternatives are already here," explains Michelle Murphy. "Invention is only possible because of the long and persistent past of already-here other worlds."[51] Along a similar line, Indigenous science and technology scholar Jessica Kolopenuk argues that "Indigenous people who remain uncompromising about their ancestral ways of being and relating in and with place, with those other bodies rendered inanimate by the scientific gaze, and with the energy forces and ghostly ancestors" provide concrete examples of other ways of thinking and living in these places.[52] As Max Liboiron argues in their powerful *Pollution is Colonialism*, it is not simply that things might be otherwise; it is that they have been.[53]

So it is with how we think about and live with water. Katherena Vermette's poem that I began with does so by situating the Red River as alive, as female, as Indigenous, as carrying histories, often difficult ones that make pressing demands

on the present. In 2019, the Grand Council of Treaty Three, the governing body of twenty-eight First Nations in north-western Ontario, declared their unanimous support for the Women's Council's Nibi Declaration. This names Nibi as a sacred relation and responsibility, one that should be recognized in law, as the Whanganui River in Aotearoa/New Zealand was in 2017.[54] How might historians, including non-Indigenous ones like me, learn from water's histories and contribute to these reframings of water and human relationships with it? The ditches, aqueduct, and damns that made settler colonial worlds possible demand our critical and mindful inquiry. They ask us to think of other ways of imagining water, and its relationship to people, and vice versa, and all that is contained within and suggested by it.

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7

Strangers, Difference, and the Darkness of Empire: The HMB *Endeavour* in New Zealand

Tony Ballantyne

First meetings between distinct peoples raise fundamental ontological questions, yet these have not been frequently pursued by historians. The last generation or two of historians of empire have increasingly placed these meetings—variously understood or rendered as encounters, collisions, engagements, or entanglements—at the center of their work even if they have not often pursued the ontological dimensions of these cross-cultural conversations and connections. Although in 1963, W. H. McNeill famously suggested that meetings with strangers were the main drive-wheel of change in the reshaping of human communities,[1] influential traditions of world history for a long-time neglected bodies, exhibited little interest in questions about humanity and the boundaries of culture, and failed to grapple with the weight of difference as they offered readings of the global past that operated in economistic and, at times, mechanistic modes.[2] It has only been in the last generation of world history scholarship that cultural difference in its myriad forms has moved to the center of the field. But both in world history and work on the histories of empire, the fundamental questions raised by the meeting of very different ontological orders are rarely grappled with; all too often, our analytical departure points and idioms remain firmly anchored in western philosophical and methodological tradition, traditions that are not subject to fundamental interrogation.[3] This reaffirms Elizabeth Povinelli's broader argument about contemporary "political economic theory"—that it "has done little to overturn the basic tenets of western notions about the qualitative divides among humans (subject-agents), non-intentional animals (predators-prey), and objects (insentient things)."[4]

For historians of empire, Samantha Frost's *Biocultural Creatures* is a provocative work, challenging us to think hard about the very basic assumptions

that structure our thought and writing, including about that fundamental category, "humanity." I read Frost's work while working on the long history of the intense, sometimes rebarbative, debates around the Pacific voyage of the HMB *Endeavour* (1768–71) and the legacies of James Cook. The arrival of that vessel in New Zealand in October 1769 is a departure point here, but this essay is not a straightforward application of insights drawn from Frost onto the archives of empire, but rather draws Frost's intervention into a wider analytical frame that engages with important Indigenous scholarship that also poses urgent questions about how we understand the fundamental order of things.

Carl Mika (Tūhourangi, Ngāti Whanaunga) has emphasized the essential difference between Māori ontologies and those of the western tradition, identifying them as offering fundamentally divergent conceptualizations of "what-ness." Consequently, Mika suggests that Māori ways of understanding the order of things challenge western traditions of thinking about "humanity," "nature," and "animals."[5] In this essay, I explore the ways in which first encounters between peoples (and the entanglements that follow) bring two dynamics into sharp relief: first, the weight of that difference stressed by Mika and, second, the ways in which peoples attempted to make sense of things despite the gap between ontological systems. What I emphasize, however, is that within a context of empire—a system of economic, socio-political, and cultural organization built on difference, difference which was then frequently used to legitimate violence, extraction, and the alienation of land, resources, and sovereignty—Europeans were largely unaware of the gaps between these systems. Drawing on a range of sources and commentary from key Māori thinkers, I sketch the outlines of the Indigenous ontologies that existed amongst the kin-groups of Te Ika a Māui, Te Waipounamu, and the other islands that make up the archipelago that Europeans named "New Zealand." This discussion underscores the importance of a set of understandings of the relationship between the natural and supernatural worlds and between humans and nonhumans that long predate more recent critiques of the hierarchical binaries that calcified in European Enlightenment thought.

A number of responses to the "new materialisms" by Indigenous scholars—including by Brendan Hokowhitu (Ngāti Pukenga), Kim TallBear (Sisseton-Wahpeton Oyate), and Zoe Todd (Métis)—have stressed that efforts to decenter and reframe the "human" as a category have been insufficiently attentive to the depth and power of Indigenous epistemologies: Hokowhitu has suggested, in fact, that this lack of considered engagement constitutes a form of "disciplinary colonialism."[6] As a Pākehā historian of colonialism located in New Zealand, my explorations of how we might understand empire and

colonization as "biocultural" must grapple with these Indigenous challenges to "new materialisms," deepening lineages of inter-disciplinary work which have nevertheless frequently remained firmly rooted in a western epistemological tradition,[7] alongside an engagement with the possibilities opened up by Samantha Frost's book. My discussion explores distinctive Indigenous understandings of materiality that not only diverge sharply from the languages of political economy and the biological sciences that underpin Frosts' writing, but which foreground the manifold forms of traffic between the natural and supernatural realms in te ao Māori.

Ko wai koe?

In 1766 the Ngāti Maru matakite (visionary) and tohunga (ritual expert) Te Toiroa Ikariki of Nukutaurua, on the Māhia Peninsula, prophesied: "Tiwha tiwha te pō. Ko te Pakerewhā. Ko Arikirangi tēnei rā te haere nei." "Dark, dark is the night. There is the Pakerewhā. There is the Arikirangi to come." This was a potent vision: the Arikirangi would be the Ngāti Maru prophet, religious founder, and war-leader Te Kooti Te Tūruki, who led the resistance against the colonial state in the 1860s and 1970s and whose teachings established the Ringatū church. But the fulfillment of this vision in the figure of Te Kooti was perhaps presaged by Toiroa's Rongowhakaata kin being amongst the first of the people of Te Ika a Māui (which would become known as the North Island of New Zealand) to encounter the HMB *Endeavour*, commanded by Lieutenant James Cook. The arrival of the *Endeavour* at Tūranganui-a-Kiwa in October 1769 gave credence to the images that the visionary had drawn in the sand three years earlier: these imagined new strange vessels, very different from traditional waka (canoes). Toiroa's vision also predicted the arrival of the Pakerewhā, a strange red and white people, from Tawhiti (far distant lands). These Pakerewhā would be like the earthworm in color and they would be agents of destruction. Cook, his officers, and men seemed to make this vision manifest, as the *Endeavour*'s brief visit to Tūranga was studded with violence, killing, and kidnapping.[8]

The arrival of the *Endeavour* and its crew raised weighty ontological questions—about what it was to be human, what the boundaries of the human world were, and about the relationships between humans and the natural world. Although Toiroa had imagined a new world—of ships, of people smoking pipes, wearing hats and trousers—his Rongowhakaata kin were initially perplexed

by the form of the *Endeavour*, thinking it was some kind of giant bird.[9] Nick Tūpara, the Ngāti Oneone historian and leader—whose tupuna (ancestors) were first kin-group that met Cook and his men at Tūranga, a collision that ended with the tohunga Te Maro being shot and killed—has likened this moment to the arrival of aliens, a moment of awe and uncertainty when the conventional order of things was suspended.[10]

The nature of the beings onboard the *Endeavour* was initially puzzling to many of the tangata whenua (people of the land) across Te Ika a Māui and Te Waipounamu (the greenstone waters, the South Island). They called them "tupua" (goblins, strange beings), "pakepakehā" (mythic creatures), and "patupaiarehe" (after the fair-skinned fairy folk that were believed to live in the mountains), seeing them as unusual and beyond the limits of human-ness, belonging perhaps not to te ao mārama (the world of light) but rather that other plane of existence, te pō (the darkness). These were entities, as Anne Salmond has stressed, that were traditionally viewed with awe and terror.[11] Wonderment and curiosity were conveyed in the recollections of Te Horetā Te Tanwiha, who encountered the *Endeavour* as a child and had his recollections recorded as an old man:

> We lived at Whitianga, and a vessel came there, and when our old men saw the ship they said it was a tupua, a god, and the people on board were strange beings. The ship came to anchor, and the boats pulled on shore. As our old men looked at the manner in which they came on shore, the rowers pulling with their backs to the bows of the boat, the old people said, "Yes, it is so: these people are goblins; their eyes are at the back of their heads; they pull on shore with their backs to the land to which they are going." When these goblins came on shore we (the children and women) took notice of them, but we ran away from them into the forest, and the warriors alone stayed in the presence of those goblins; but, as the goblins stayed some time, and did not do any evil to our braves, we came back one by one, and gazed at them, and we stroked their garments with our hands, and we were pleased with the whiteness of their skins and the blue eyes of some of them.
>
> These goblins began to gather oysters, and we gave some kumara, fish, and fern-root to them. These they accepted, and we (the women and children) began to roast cockles for them; and as we saw that these goblins were eating kumara, fish, and cockles, we were startled, and said, "Perhaps they are not goblins like the Maori goblins." ….
>
> The warriors and old men of our tribe sat in silence and gazed at these goblins. So these goblins ate the food we had presented to them, with some relish they had brought on shore with them, and then we went up the Whitianga River with them.[12]

Although we might wonder how Horetā's account may have been imprinted by the experience of empire and colonization in the decades between these engagements and the recording of his narrative in the early 1850s, what is useful here is how the narrative dwells on bodies and bodily orders. Later parts of his account returned to this concern—the blue eyes of some of the strangers, their strange hissing language and the saltiness of their food. Reading Horetā's narrative in the wake of the material turn, we can say that he was struck by the ways in which these newcomers belonged to some very different biocultural order. Horetā also noted that the Europeans, including a figure that was apparently Cook himself, repeatedly touched the heads and rubbed the hair of the children, a practice that may have been a sign of friendliness and affection to Britons, but which violated a fundamental tapu for tangata whenua.

It was out of these kinds of engagements that the whānau (families), hapū (clans, subtribes), and iwi (tribes) of the tangata whenua began to identify themselves as "tangata māori," the ordinary people. This is commonly seen as the genesis of the identification, "Māori." While being Māori was (and is) underpinned by a common language (albeit with significant variation in dialect), shared understandings of genealogical descent, and a unifying set of understandings of how the world works (discussed below), a deepened sense of cultural commonality was crystallized by the imperial intrusion of Europeans, these very strange strangers, into Te Moananui a Kiwa (the Pacific). This identification as Māori stood in contrast to the new ship-board beings who at first resembled tupua, patupaiarehe, or pakepakehā. With time, these newcomers were understood to be a new type of person: they came to be more commonly known as "Pākehā," or in the south of Te Waipounamu, "takata pora," or "takata bola" (the ship people).[13] Te Ahukaramū Charles Royal (Marutūahu, Ngāti Raukawa, Ngāpuhi) has highlighted another argument, originally made by Hoani Nahe of Ngāti Maru who suggested that notion of "tangata Māori" originally emerged as a result of the Pacific people from Hawaiki's first encounter with the motu (islands) that make up New Zealand. In this tradition, the islands were already occupied and the travelers from Hawaiki encountered the patupaiarehe (fairy-folk) who occupied the whenua (land) soon after their arrival.[14] This argument does not necessarily invalidate the understanding that "Māori" is a relational identity or that it gained widespread currency following the arrival of the *Endeavour* but does suggest that for some tangata whenua at least, these newcomers might have been a kind of restaging of an earlier encounter with profound difference, as suggested by the belief of some that the incoming Europeans were in fact patupaiarehe.

The arrival of the *Endeavour*, Cook and his crew, and subsequent Europeans, posed in new and urgent ways, a fundamental question in the social life of the Indigenous people of Te Ika a Māui and Te Waipounamu: Ko wai koe? Who are you? That question was routinely posed when different kin-groups met. Indigenous ritual life and traditions of oratory were shaped around ways of articulating identity, belonging, history, and the claims that flowed from genealogy, war-making, and the occupation of land. But these strange beings, who arrived on a vessel that diverged significantly from the maritime technologies of the Indigenous Pacific, created a new uncertainty. Indigenous understandings of identity and belonging were anchored in whakapapa (genealogy), what the great Ngāi Tahu leader and historian Tā Tipene O'Regan has called the "skeletal framework" of tribal life and Indigenous culture in New Zealand.[15]

Recounting and narrating lines of descent, thereby establishing rank and political rights, were pivotal in te ao Māori (the Māori world). But social identities were also defined through relationships to place and environment. Mihimihi (formal greetings) were and are key elements of self-presentation and ritual encounter: these often defined identity in terms of relationship to awa (rivers) and maunga (mountains), landforms that themselves might be ancestors. Here we return to that question: Ko wai koe?—which is asking: what waters define you? This is a key manifestation of the strong and powerfully felt connections between humans, social collectives, and particular places and domains that structure Indigenous cultural expression and political life in New Zealand. Here Te Ahukaramū Charles Royal's observation that traditional Māori knowledge was preoccupied with "three great questions of life" is useful: "Who am I? What is this world that I exist in? What am I to do?"[16]

It is also worth observing, more generally, that the strong connections between environments, social collectives, and the body were woven through te reo Māori (the Māori language). This is discernible in the double or multiple meanings of the following keywords:

whenua—land; placenta/afterbirth
whānau—family/extended family; birth
hapū—clan/sub-tribe; to be pregnant
iwi—tribe; bone

Andrew Sharp has argued that this worldview—which has been strongly reasserted in the last three generations and has been repeatedly articulated to the Waitangi Tribunal—is understood by Māori as fundamentally as odds with the European order of things: "The ties so expressed are fleshly and earthly as

well as with the gods, and all is infused with tapu and mana. No stronger ones can be imagined. The thought is that European notions of humanity, and land, and nature, and political organisation—disenchanted, individualistic and artificially constructed—cannot come close to appreciating this."[17]

With *Biocultural Creatures*' reflections on metaphor in mind, this vocabulary is not simply metaphorical; it articulates a distinctive material order where particular territories and the bodies of specific kin-groups were consciously woven together. Many Māori bury the whenua (placenta) of their children in the whenua (land) that they are attached to. Similarly, one way of thinking about the rohe (territorial authority) of an iwi (tribe) was that it encompassed the land where the iwi (bones) of their tupuna were interred. In whaikōrero, the politically crucial art of oratory, the ties to the tribal landscape—to ancestral mountains and rivers—are typically a key structuring concern, a vital source of identity for the orator and very basis of the orator's very legitimacy as a speaker.[18]

Porosity, Energy, and Embodiment

This language of kinship and social organization suggests that there is a creative analytical space opened up by some echoes and rough resemblances that might be prompted by an initial reading of Frost's *Biocultural Creatures*. Put simply, the stark organizing distinction between nature and culture, which was so central to much western and imperial thought that Frost's book pushes against in a variety of ways, is fundamentally at odds with mātauranga Māori (Māori knowledge). This is not to posit that mātauranga Māori should be understood as some kind of shadow image of European knowledge or primarily as a set of knowledges and epistemologies that can be mobilized against the cultural assumptions and knowledge traditions that underwrote colonialism. Royal has helpfully reminded us that while colonialism might be one context within which we might historicize the development of Māori thought, fundamentally mātauranga Māori's persistent orientation is more ontological; it is a "way of thinking, experiencing and understanding life."[19] This is anchored in an understanding that "humankind are products of the earth" and woven into the natural world through a "kinship relationship" with it, and its constitutive elements.[20]

This understanding brings us back to whakapapa, genealogy. As a verb "whakapapa" literally means to place in layers, or to lay one thing upon another; this meaning stresses the "vertical" intergenerational dimensions of whakapapa

as a line of descent from notable ancestors. Tipene O'Regan has eloquently explained the significance of whakapapa as the foundation of meaningful personal and collective identity:

> The whakapapa that ties me to my tupuna is also the structure that orders my history and that of my people. It is the conduit that carries their spiritual force—their wairua—to me in the present and by which I pass it forward to future generations. It carries the ultimate expression of who I am. Without it I am simply an ethnic statistic.[21]

But while exponents of whaikōrero (formal oratory) who recount sequences of important tupuna or lists of the names of ancestors in written genealogies might emphasize these vertical genealogical connections to make claims, to frame historical narratives, and to assert the mana (charisma, power, standing) of their people, whakapapa also had (and has) a wider utility in establishing complex kin-relationships and social connections. O'Regan notes that alongside the vertical connections that might be invoked in the recitation of whakapapa, those who are knowledgeable are also able to recognize the resulting "network of lateral relationships" that result from and provide context for the particular vertical line of descent being highlighted.[22]

The breadth of these lateral relationships is significant, especially in light of Samantha Frost's observation that "what we need in the place of the fantasy of human exceptionalism is a different figure of the human."[23] In te ao Māori there was no stark dividing line between humanity and nature. Whakapapa are not focused solely on humans; rather, whakapapa are comprehensive and all-encompassing, linking the entirety of the natural world and thus wove it into connection with atua (supernatural beings, agents, gods). Human origins were traced back to Tāne-Mahuta, one of the children of the primordial parents Ranginui, the sky father, and Papatūānuku, the earth mother. Tāne broke his parent's embrace, pushing them apart and allowing light to enter the darkness of Te Pō. From this act came Te Ao Mārama, the world of light, which would become the domain of humanity. Tāne himself was responsible for creating humans, as he took earth from his mother, Papatūānuku, and shaped it into a female form. This was Hine-ahu-one, the first woman and Tāne's wife.

Birds and mammals were also seen as descendants of Tāne, while fish and reptiles were the progeny of his brother Tangaroa, the atua of the sea (Figure 18). There were a variety of explanations for the genesis of insects and their kin relations: in some traditions they were produced out of lines that began with Tane's coupling with Hinetuamaunga (the Maid of the Mountains); others

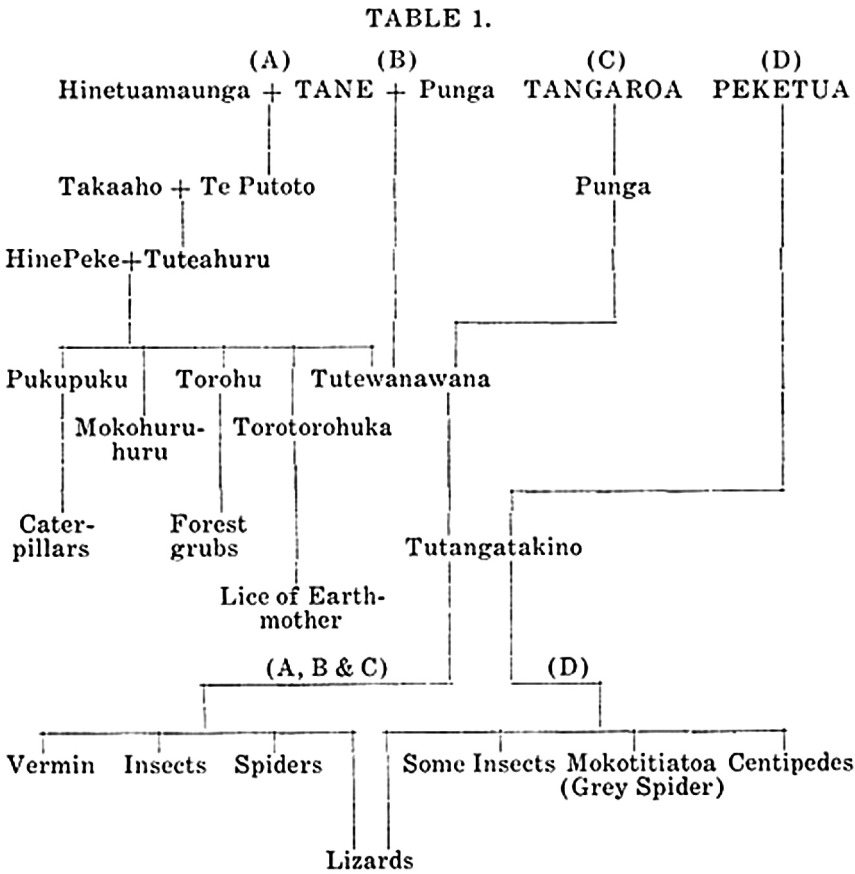

Figure 18 Whakapapa explaining the origins of insects: David Miller, "The Insect People of the Maori," *Journal of the Polynesian Society* 61: 1 and 2 (1952), 4.

suggest that they were products of Tane's relationship with Punga, daughter of Te Rā (the Sun) and Hinetakurua (Winter) or they descend through Tangaroa's son (also named) Punga, or finally, perhaps, that they are descendants of Peketua, Tane's brother.

Whakapapa also extended beyond what Europeans might think of the "living world." Rocks had whakapapa: they were descendants of Tāne and Hinetūparimaunga.[24] Similarly, iwi had genealogies for the wind, explaining the particular features of the winds in their regions.[25] In light of the range and comprehensiveness of such ways of making sense of the order of things, Te Maire Tau has stressed that before the arrival of Europeans, whakapapa was a "binding agent." It connected and ordered the relationships between the "living with the dead, Atua [supernatural agents] with humankind, and the intangible with

the tangible," creating a "web of kinship" that wove humanity into the world.[26] Tau and Kāi Tahu historian Michael J. Stevens offer quite different readings of how colonial power and shifting patterns of Indigenous thought and practice transformed the workings of whakapapa, but they agree that with time both its authority and its reach were attenuated.[27] Stevens suggests that a notable consequence of these transformations was that the whakapapa that connected humans and animals were often forgotten or lost.[28]

Even though colonial collectors and historians were aware of the significance and range of whakapapa, the implications of these understandings were at odds with both the logics of the colonial state and real-politik of colonization which were ordered by powerful, if contested, oppositions between nature and culture, human and nonhuman, what Kim TallBear has identified as hierarchies of animacy.[29] To rework a notion from Jonathan Saha's paper: while colonial authorities were often preoccupied by how whakapapa underwrote Indigenous politics, these wider connections were typically beyond their "heuristic thresholds," a point that the final section of this essay will return to.

The granular descriptions of the centrality of carbon, how cell membranes function, the activities of proteins and genes, and the vital work of oxygen that are the center of *Biocultural Creatures* might appear strange within the ontology of the precolonial mātauranga of tangata whenua. But there are two fundamental aspects of Māori ontology that might align with or echo elements of an understanding of humans as biocultural: hau and mauri. More generally, the operation of hau, mauri, and the power of tapu suggest that Māori had a distinctive understanding of human porosity.

Hau is typically translated as vital essence or vitality of a person, group of people, being, place, or object: it is often associated with breath or wind, it is an animating force. It is understood as the foundations of health and well-being, terms that are now often translated as hauora.[30] Of course, hau was a key element of Marcel Mauss' *The Gift* and his understanding of exchange relations. But as Salmond notes, Mauss failed to grapple with the weight and power of hau within Māori society: "hau drives the whole world." It is not just implicated in gift-giving, but rather was central in the emergence of the cosmos, in the creation of humanity, in the relationships between beings; it animates all things; it is the "wind of life."[31] Hau is the essence of individuals, not their āhua (material shape or form).[32] This is underlined in the ceremonial importance of hongi—the pressing of noses—in meetings between peoples: at the heart of this practice is the mingling of the hau of the two individuals, the creation of interdependence.

The second term is mauri. This is often glossed as life principle, special nature, the essential and energizing quality of a being, object, or place. Mauri was the force that animated Hine-ahu-one (the Earth-Formed-Maid or the female element who comes from the soil), the woman created from the iron-rich red soil of Kurawaka by the atua Tāne. The power of mauri is referred to in the famous saying "tihei mauri ora," "behold the breath of life": variants of this phrase are often used as a whakaaraara to signal that an orator is about to stand and speak.[33] Hirini Moko Mead stresses that it is the active and dynamic "spark of life." When one dies, mauri leaves the body and the body is both lifeless and utterly material.[34] Mauri is not restricted to humans, animals have mauri, rocks can have mauri, and ecosystems, including forests and fisheries, were and are also said to possess mauri.[35] Royal has defined mauri "as an energy that animates and illuminates all things, and it is by this energy found in all things that the spiritual realm is able to manifest itself in the natural world."[36] The relationship between mauri and hau is complex and has been subject to much discussion; both are essential elements of Māori understandings of the cosmos.[37] When placed alongside the work of whakapapa in ordering concepts of existence, this Māori ontology expresses some strong resemblances to what Kim TallBear had described as an "indigenous metaphysic" underpinned by "networked sets of social-material relations."[38]

In relation to *Biocultural Creatures*, what is significant about these concepts is that they are understood as forms of energy, forms that are integral to human life, but not restricted to it. In humans, they are also not necessarily contained by the body: in a literal form, hau is made manifest through ventilation (breathing). Best suggests that when an individual sat or walked, traces of their hau were left in their wake: it was "apparently detachable."[39] The great Ngāti Mutunga leader and anthropologist Te Rangi Hīroa/Peter Buck noted that even the wise and cautious would be vigilant about how they expelled their hau (breath) when speaking amongst strangers as it could be seized upon and used as a vehicle in makutu (incantations, sorcery).[40] Similarly, elements dispelled or removed from the body—fingernails, hair, feces, for example—were disposed of carefully as they potentially retained a connection to the person and could be used in makutu (malevolent magic; witchcraft) directed against an individual.[41]

The porosity and mobility of invisible forces and energy are particularly notable in relation to tapu, which structured the operation to social relationships and was vital in the maintenance of mana (power, charisma, authority). Tapu regulated human interactions according to gender and rank and governed the management of the body, including significant moments of transformation,

including menstruation, birth, sickness, death, burial, and exhumation.[42] Tapu could reach across time; its power was attributed to the power of ancestors and atua (supernatural beings, goods, deified ancestors).[43] For Māori, tapu was one key physical manifestation of the work of atua in physical world. The power and status of high-ranking chiefs were both a result of the constant influence of atua on their person and a reflection of their tapu status.[44] This tapu was not simply restricted the body of an individual but rather "leaked" into their surrounding of social world and was able to be transferred. Their dwelling, sleeping-place, and clothes were highly tapu. The possessions of a rangatira—pendants, combs, treasured feathers—were very tapu and were frequently stored in waka huia (treasure boxes) that were hung off the rafters in a highly tapu position within the rangatira's whare (dwelling). Tapu could also be transferred through bodily fluids (especially blood) and contact with hair.[45] The superabundance of the tapu state of powerful rangatira and tohunga (ritual experts) meant that their shadows could wither trees or render food inedible.[46]

In an important account of this principle, Te Rangi Hīroa explained "the contagion of tapu":

> It has been truly said that tapu is contagious so that everything that touched the sacred head of a tohunga also became tapu. If he scratched his sacred head, he would, on lowering his hand, place it before his nostrils and inhale back the tapu lest his hand remain tapu and in turn render tapu everything he subsequently touched. If he raised a calabash of water to his lips it became tapu and could only be used by him. To protect others from suffering from the consequences of transgressing tapu it was an act of courtesy on his part to destroy the calabash. Europeans on first contact with the Maoris, were surprised when a chief of note, after drinking a cup of tea with them, gravely and politely shattered the cup to atoms.[47]

He further sketched the relationship between tapu and rank and the consequences of this connection:

> Though in some cases, arikis of high connection with many leading lines, were so tapu that the ground they trod upon, and everything they touched, became tapu, in the case of the majority personal tapu was not so highly charged with sanctity. Such men would have been too dangerous to the community. As it was, instances are given of such men being kept in houses raised from the ground as they were too tapu to walk about. Hine-Matioro, the great East Coast Chieftainess, was carried about on a litter on account of her great tapu. Te Haramiti the blind tohunga, of the Ngapuhis when captured at the battle of Motiti, was pummelled to death as his blood was too sacred to be shed.[48]

The rules of tapu and their consequential practices protected and reinforced the mauri of an individual.[49] It also shaped the organization of social space, the order of dwellings, how food was prepared and eaten, and how waste was disposed. Tapu also was central in the management of death, especially through wahi tapu, places set apart because of their highly tapu status because they related to the internment of human remains and the possessions of the deceased. Tapu was thus a fundamental principle that ordered time and space, relations between the human world and the worlds beyond.[50]

Marshall Sahlins has suggested that the operation of this way of understanding the order of things—through hau, mauri, tapu, mana—was "a gigantic kin, a genealogy … a veritable ontology."[51] Sahlins, of course, was the champion of a particular approach to the understanding of Polynesian societies and Indigenous ontologies, but his work has repeatedly underscored the strength of this cultural system with, at its heart, an ontological order that ultimately charted the "commonalities and differentiations of substance."[52]

Violence and the Hierarchies of Imperial Knowledge

Of course, for Sahlins these ontologies and the inability of Europeans to make sense of them are essential to the interpretation of culture-contact and the killing of Captain Cook by Hawai'ians in particular.[53] What is critically important to recognize within the specific context of the *Endeavour* voyage is that these ontological concepts largely remained beyond the purview of the officers of the *Endeavour*. Although Cook and Banks, in their different ways, made significant contributions to the emergence of an imperial ethnography of the Pacific, these fundamental elements of culture eluded their understanding. Joseph Banks's long ethnographic account composed as he left New Zealand was full of detailed observation on food, fishing, and material culture, but it did not identify the importance of these concepts. It is striking, for example, that the basic word list he compiled focused on numbers, body parts, and key food items, but there was no reference to mana, tapu, mauri or hau.[54] Although he made passing reference to atua, which he understood as "gods," Banks noted that he and his colleagues "saw few signs of religion among these people," a neat summation of the slippage between two divergent ontological systems.[55] Cook's summation was slightly fuller, but literally full of gaps: "Religion of the Natives bear some resemblance to the George Islanders [Tahiti]" and that "they have gods of war, of husbandry & c but there is one

supreme god who the[y] call he made the world and all that therein is ------- by Copolation."[56]

It would only be with the establishment of missionary activity and the sustained cosmological contests set in train by evangelization that Europeans would form any developed understanding of these fundamental cultural concepts.[57] Instead what structured the ethnographic accounts from the *Endeavour* voyage was a recurrent detailed assessment of material culture and its diverse forms: gardening and fishing technologies and practices, the rituals and practices of warfare, the prevalence and meaning of kaitangata (cannibalism), and, in the case of Banks, at least, cross-cultural sexual relationships. Out of the extensive and at times contradictory assessments of these diverse fragments of culture, the *Endeavour*'s officers formed readings of New Zealand's imperial potentiality, suitability for colonization, and Indigenous cultural capacity. While these assessments were more variegated and textured than some recent scholarship has allowed, there is no doubt that they were shaped and ordered by a deep concern with two dimensions of difference: first, what is often framed as "race" (but which encompassed a large range of dimensions that somatic features, biology, or descent), and second, by a deep and abiding preoccupation with gender. These formulations gained wider currency through the work of learned circles attached to the Royal Society, the Admiralty, and various private collectors and men of letters and more generally through theater and performances, a flourishing culture of printing and reading, and the work of rumor and gossip (which particularly fixed on Banks). Here difference worked in two ways: first, through the distinctions that separated Britons from the peoples of the islands of the Pacific and, second, through the complex comparisons and hierarchies within the Indigenous peoples that these British observers elaborated. Both of these were crucial in legitimating latter imperial intrusions into the Pacific and for justifying the directions of subsequent colonial policies, with divergent and enduring consequences for the Indigenous communities colonized by Britain (and other European powers).

Two moments are useful for drawing out the divergence of these ontological orders. The first comes from Te Horetā's narrative:

> These goblins went into the forest, and also climbed up the hill to our pa at Whitianga. They collected grasses from the cliffs, and kept knocking at the stones on the beach, and we said, "Why are these acts done by these goblins?" We and the women gathered stones and grass of all sorts, and gave to these goblins. Some of the stones they liked, and put them into their bags, the rest they threw away; and when we gave them the grass and branches of trees they stood

> and talked to us, or they uttered the words of their language. Perhaps they were asking questions, and, as we did not know their language, we laughed, and these goblins also laughed, so we were pleased.[58]

Here, Te Horetā and his kin were struck by the strangeness of Banks and his assistants engaged in collecting specimens, a process that was driven by a powerful curiosity and hunger for knowledge. Imperial aspirations were one significant driver for the contemplation of nature to shift into a desire to master nature in the early modern world, a process that Banks played a key role in cementing. Banks, of course, was especially important in propelling an extended British drive to know and catalogue nature. This was a project that was dependent on the elaboration of new models of colonial knowledge across the empire to serve the British state and commercial interests.[59] Banks propelled this through his world-spanning imperial networks of correspondence and knowledge-exchange, in his consistent harnessing of key British intellectual institutions to the workings of empire, and in the shaping of Kew Gardens as a vital imperial center.[60]

There was also a strong convergence between Bank's impulse toward the mastery of nature and the development of Linnaean taxonomy. Linnaeus' development of binomial nomenclature and his taxonomical system of kingdom, classes, orders, genera, and species provided a powerful framework to order the world: we can read this system alongside and against whakapapa. If, as Tau suggests, whakapapa was a "web of kinship" where lateral connections were vitally important, Linnaean taxonomy functioned as a kind of nested hierarchy that could allow systematists to place any specimen within its ranked order.[61]

The weaving together of Banks' and Linnaeus' networks helped propel a drive to secure the global authority of Linnaean taxonomy and the commercial and cultural interests of the British empire.[62] The *Endeavour* voyage was a key moment in the interlocking of this potent intellectual assemblage, as Banks worked closely on board the *Endeavour* with one of Linnaeus's key "disciples," the Swedish naturalist Daniel Solander and Solander's Finnish colleague Herman Spöring (who served as Banks's secretary). They were formed an insatiably acquisitive collecting team: by the end of the its voyage, the *Endeavour* carried over 30,000 specimens in an addition to a vast collection of objects, a variegated body of visual records including ethnographic, landscape, and natural history sketches, a dense archive of maritime knowledge new to Europeans (including many maps, charts, and coastal views), and extensive ethnographic accounts. Cook, Banks, and their fellow officers attempted to encompass the Pacific in their cabins and the hold of the *Endeavour*.

The instruments and process of collection at Whitianga struck Te Horetā as terrifying:

> Now, some of the goblins had walking-sticks which they carried about with them, and when we arrived at the bare dead trees where the shags roost at night and have their nests, the goblins lifted the walking-sticks up and pointed them at the birds, and in a short time thunder was heard to crash and a flash of lightning was seen, and a shag fell from the trees; and we children were terrified, and fled, and rushed into the forest, and left the goblins all alone. They laughed, and waved their hands to us, and in a short time the bravest of us went back to where the goblins were, and handled the bird, and saw that it was dead. But what had killed it?[63]

The arrival of the *Endeavour* was the first time that tangata whenua encountered the destructive power of firearms; they quickly learned about their capacity and with time they would embrace muskets themselves as instruments of war, propelling an extended cycle of conflict and migration that rewrote the indigenous geography of New Zealand.

The use of firearms of course was integral to imperial power. Priya Satia has described the world-spanning system that served Britain's interests as the "empire of guns."[64] The *Endeavour* sailed in the shadow of the first truly global conflict, the Seven Years' War and it can be read within the context of the massive and sustained expansion in the capacity of the British state's coercive reach which historians have characterized as marking its military-fiscal character.[65]

It was not just human bodies that were subject to the violence of these weapons, as shooting became a critical and long-standing foundation for natural history collecting.[66] Banks' use of his fowling-piece had ontological dimensions: his willingness to kill animals for his collection was a powerful statement of mastery. Here it is important to note the divergence with the indigenous ontology possessed by Te Horetā and his kin, where animals and humans were linked by whakapapa and where animals were woven into the broader cultural system to atua and the hau and mauri of places.

In one of his influential ethnographic narratives, Elsdon Best—a vital source for Marcel Mauss's landmark work on the spirit of the gift—noted that the first bird captured during the birding season was dedicated to the hau of the forest, to ensure the contentment of the atua and to ensure that the mauri of the forest was also maintained.[67] Best's account was dependent on, and significantly reshaped, the work of Tāmati Ranapiri (Ngāti Raukawa), who explained to him these hunting practices and the interrelationships between hau and mauri.[68] For our purposes here, what is particularly significant is that this "powerful interlocking

system" established the critical importance of relationships between animals and humanity, the natural world and the supernatural world of the atua.[69] The ethic of connectedness and reciprocity that linked human and nonhuman was not shared by Banks or other enlightened European subjects who saw nature as an object: in Banks' use of his fowling piece to enable the collection of specimens we can see one of the moments that enacted the beginnings of the ontological break initiated by the arrival of the *Endeavour*, the elaboration of what Anne Salmond has characterized at the "Cartesian dualisms," most fundamentally the "division between Nature and Culture," that underwrote the long and painful histories of empire and colonization that would subsequently unfold.[70]

The second example is even starker and came when the *Endeavour* first made landfall at Tūranganui-a-Kiwa. Four men from Ngāti Rākai, a significant kin-group that would later become Ngāti Oneone, saw the arrival of strange vessel and the beings aboard and went to investigate. This group left the bush at the foot of the sacred maunga (mountain) Tītīrangi and moved toward the Tūranga River where the *Endeavour*'s pinnace sat just off-shore. While Cook and his men attempted to engage with another group of tangata whenua on the south side of the river, the coxswain of the pinnace fired two warning shots with his musket over the heads the Ngāti Rākai men as they approached. When the second shot had no effect, the coxswain shot and killed Te Maro, a high-ranking man, a skilled gardener, and keeper of natural knowledge. Te Maro's companions began to move his body before retreating into the bush, perhaps ahead of the approach of Cook and his officers, who moved swiftly to the site once they heard shots.

The killing of Te Maro initiated a tense and violent series of collisions between the people of Tūranga and the *Endeavour* and its crew, who had intruded into their waters and onto the whenua (land) without invitation. Joseph Banks and the ship's surgeon Monkhouse studied Te Maro closely. Monkhouse's description is a powerful instance where imperial violence and the killing of indigenous peoples enable minute ethnographic observation, where Te Maro himself becomes a specimen:

> He was a short, but very stout bodied man-measured about 5 f. 3 I. Upon his right cheek and nose were spirals of tattaou or punctuation of the skin—he had three arched tattaous over his left eye drawn from the root of his nose towards the temple; each arch about four lines broad. The interval between each about a line broad; this was an exceeding new and singular appearance and seem[ed] meant to give fierceness to the Visage. His hair, coarse and black, was tied upon the crown of his head—his teeth were even and small but not white—his features

> were large but proportional—his nose well formed - ears bored—his beard short. He had on him a dress of singular manufacture—the warp consisted of small parcels of the fibres of some plant not twined or formed into thread, but the cross threads were properly twined, and run in parcels of two or three together with an interval of about four lines between each parcel; a strong selvage thread run along each side but the ends appeared as if cut out of a web of the manufacture—this cloth might be about four feet by three-descended from his neck to the buttocks, compleatly covering the back—its upper corners were turned back and tied-from the upper angle of this reflected part on each side went a string which tied across the neck before—the lower part on each side was brought across the hips and secured with a kind of sedge leaf passed round the loins.
>
> The ball had passed from the sixth rib on the left side thro' the right shoulder blade. Some nails and beads were put upon the body, and we took our leave of the shore.[71]

While the leaving of the nails and the beads were in an invitation to engagement, violence and killing were not a foundation for the establishment of reciprocity. Te Maro's hau ora—breath of life—had been extinguished, anticipating the death and the darkness that would follow in Te Ika a Māui, Te Wai Pounamu, and across the Pacific from the arrival of the *Endeavour.*

Te Pō

In his prophecy, Te Toiroa Ikariki talked of the darkness, the blackness of "te pō." Te pō is the night, but it is also the realm of death. The arrival of the HMB *Endeavour* initiated a series of engagements and collisions between cultures—moments that were often fraught, uncertain, and that could erupt into violence. Lieutenant Cook understood grape-shot, musket-balls and cannon-fire, as well as kidnapping, as important strategies to be deployed to enable him to execute his imperial mission. Although some of these meetings were mediated and skillfully guided by Tupaia, the ʻarioi, artist, navigator, and diplomat from Raʻiātea, the *Endeavour* was seeking knowledge and potential territory for British interests: curiosity, acquisitiveness, and violence were laced together in its world-spanning voyage. For the Indigenous peoples of the Pacific, te pō would indeed prove to be very dark in the wake of the *Endeavour*: a new biocultural order would take shape, shaped by not just visiting Europeans and those who stayed longer (like missionaries, traders, and beachcombers), but also by viruses and bacteria novel to the Pacific, by metal and paper, by guns and ships. Te Toiroa's sketches

of alien people, unusual waka, and strange clothing anticipated this world and stressed its difference. Difference would define the empire that took shape in the Pacific in the wake of the *Endeavour* and the colonial order that would kill and disempower Te Toiroa's descendants: te pō was indeed very dark.

Notes

1 W. H. McNeill, *The Rise of the West* (Chicago: University of Chicago Press, 1991 [1963]), xvi, xx, 349–55, 527, 530.

2 For one set of reflections and response to this, see Tony Ballantyne and Antoinette Burton, eds., *Bodies in Contact*: *Rethinking Colonial Encounters in World History* (Durham, NC: Duke University Press, 2005).

3 A very notable work, anchored more in anthropology, that does this in the New Zealand context is Anne Salmond's collection of essays, *Tears of Rangi: experiments across worlds* (Auckland: Auckland University Press, 2017).

4 Elizabeth A. Povinelli, "Do Rocks Listen? The Cultural Politics of Apprehend-ing Australian Aboriginal Labor." *American Anthropologist* 97, no. 3 (1995), 505–18, here 515.

5 Carl Mika, "When Nothingness Revokes Certainty: A Māori Speculation," in Brendan Hokowhitu, Aileen Moreton-Robinson, Linda Tuhiwai-Smith, Chris Andersen, and Steve Larkin, eds., *Routledge Handbook of Critical Indigenous Studies* (London: Routledge, 2020): 203–14, here 204.

6 Brendan Hokowhitu, "The Emperor's 'New' Materialisms: Indigenous Materialisms and Disciplinary Colonialism," in Brendan Hokowhitu, Aileen Moreton-Robinson, Linda Tuhiwai-Smith, Chris Andersen, and Steve Larkin (eds.), *Routledge Handbook of Critical Indigenous Studies* (London: Routledge, 2020), 131–46; Hokowhitu, "Indigenous Materialisms and Disciplinary Colonialism." *Somatechnics* 11, no. 2 (2021): 157–73; also see "An Indigenous Feminist's Take on the Ontological Turn: 'Ontology' Is Just Another Word for Colonialism (Urbane Adventurer: Amiskwacî)," https://umaincertaantropologia.org/2014/10/26/an-indigenous-feminists-take-on-the-ontological-turn-ontology-is-just-another-word-for-colonialism-urbane-adventurer-amiskwaci/.

7 Hokowhitu above and from another perspective Jennifer Clary-Lemon, "Gifts, Ancestors, and Relations: Notes Toward an Indigenous New Materialism," *Enculturation*, November 12, 2019, https://www.enculturation.net/gifts_ancestors_and_relations.

8 Judith Binney, *Redemption Songs: A Life of Te Kooti Arikirangi Te Turuki* (Auckland: Auckland University Press and Bridget Williams Books, 1995), 11. For a detailed assessment of the subsequent prophetic tradition that followed, see Binney's

"Myth and Explanation in the Ringatū Tradition: Some Aspects of the Leadership of Te Kooti Arikirangi Te Turuki and Rua Kēnana Hepetipa." *The Journal of the Polynesian Society* 93, no. 4 (1984): 345–98. "Pakerewhā" perhaps alluded to the introduced diseases that would have devastating impacts on whānau (families) and iwi (tribes): the waves of influenza that took a heavy toll in the early nineteenth century were called "rewharewha." James Hamlin, *On the Mythology of the New Zealanders* (Tasmania: Government Printer, 1842), 344.

9 Zak Waipara, *Tiwha, Tiwha Te Pō | Dark, Dark Is the Night,* 0.33, https://www.tepapa.govt.nz/discover-collections/read-watch-play/maori/rongowhakaata/watch-prophecy-and-arrival-captain-cook. For another, more recent perspective on this, see the fictional narrative that concludes the historical novel written by the well-known Ngāti Pōrou historian, Mounty Soutar, *Kāwai: For Such a Time as This* (Auckland: David Bateman, 2022).

10 Personal conversation, October 2020.

11 Amiria Henare, "Nga Rakau a te Pakeha: Reconsidering Maori Anthropology," in Jeanette Edwards, Penny Harvey, and Peter Wade (eds.), *Anthropology and Science: Epistemologies in Practice* (Oxford: Berg, 2007), 93–113; Anne Salmond, *Two Worlds: First Meetings between Maori and Europeans, 1642–1772* (Auckland: Viking 1993), 85–8.

12 John White, *Ancient History of the Maori, Vol. V* (Wellington: Government Printer, 1888), 121–8.

13 Tony Ballantyne, "Te Anu's Story: A Fragmentary History of Difference and Racialisation in Southern New Zealand," in Barbara Brookes and Alison Holland (eds.), *Rethinking the Racial Moment: Essays on the Colonial Encounter* (Newcastle upon Tyne: Cambridge Scholars Press, 2011), 64–5.

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15 Tipene O'Regan, "Old Myths and New Politics. Some Contemporary Uses of Traditional History." *New Zealand Journal of History* 26, no. 1 (1992): 5–27, here 25.

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17 Andrew Sharp, "Recent Juridical and Constitutional Histories of Maori," in Andrew Sharp and Paul McHugh (eds.), *Histories, Power and Loss: Uses of the Past—a New Zealand Commentary* (Wellington: Bridget Williams Books, 2001), 46.

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19 Te Ahukaramū Charles Royal, "Indigenous Ways of Knowing." *The University Beside Itself*, Special issue of *Argos Aotearoa*, 1 (2014): 29.

20 Royal, "Indigenous Ways of Knowing," 30–1.

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22 O'Regan, "Old Myths and New Politics," 24.
23 Samantha Frost, *Biocultural Creatures: Towards a New Theory of the Human* (Durham and London: Duke University Press, 2016), 13.
24 https://teara.govt.nz/en/document/8877/whakapapa-of-rocks-and-stones.
25 https://teara.govt.nz/en/whakapapa/8274/genealogy-of-the-winds.
26 Te Maire Tau, "Ngāi Tahu and the Canterbury Landscape—A Broad Context," in *Southern Capital Christchurch: Towards a City Biography 1850–2000* (Christchurch: Canterbury University Press, 2000): 41.
27 Michael J. Stevens, "Muttonbirds and Modernity in Murihiku: Continuity and Change in Kāi Tahu Knowledge" (University of Otago PhD, 2009), 22–5; Te Maire Tau, "The Death of Knowledge—Ghosts on the Plains." *New Zealand Journal of History* 35, no. 2 (2001): 131–52.
28 Stevens, "Muttonbirds and Modernity," 23–4, n.77.
29 Kim TallBear, "An Indigenous Approach to Critical Animal Studies, Interspecies Thinking, and the New Materialisms," in Joanna Radin and Emma Kowal (eds.), *Cryopolitics: Frozen Life in a Melting World* (Boston: MIT Press, 2017), 179–201.
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31 Salmond, *Tears of Rangi*, 10–15, especially 10.
32 Ibid., 47.
33 Rewi, *Whaikōrero*.
34 Mead, *Tikanga Māori,* 53–4.
35 Richard Benton, Alex Frame, and Paul Meredith, eds., *Te Mātāpunenga. A Compendium of References to the Concepts and Institutions of Māori Customary Law* (Wellington: Victoria University Press, 2013), 248–9; Elsdon Best, *The Forest Lore of the Maori* (Wellington: Government Printer, 1977 [1942]), 7–15; Mead, *Tikanga Māori*, 338.
36 Quoted in Renei Ngawati, "He aha te wairua? He aha te mauri?," *Ngā Pae o te Māramatanga Student Internship Research Project 2018*, https://www.maramatanga.ac.nz/media/5006/.
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38 TallBear, "An Indigenous Approach," 189.
39 Best, *Maori Religion and Mythology, Part Two*, 1924, 51.
40 Te Rangi Hīroa [Peter H. Buck], "Medicine amongst the Maoris, in Ancient and Modern Times," University of Otago, Doctor of Medicine thesis, 1910, 57.

41 F. Allan Hanson and Louise Hanson, *Counterpoint in Maori Culture* (London: Routledge & Kegan Paul, 1983); Te Rangi Hīroa, "Medicine amongst the Maoris," 56–7.

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43 Salmond, *Tears of Rangi*.

44 Māori Marsden notes that this status is "reinforced by endowment with mana." He thus sees mana as following tapu and as being produced when "the spirit of gods fell upon the person and filled or possessed him." For Marsden, mana is best understood as "spiritual authority." Māori Marsden, 'God, Man and Universe: A Māori View', in Te Ahukaramū Charles Royal (ed.), *The Woven Universe: Selected Writings of Māori Marsden* (Ōtaki: Estate of Rev. Māori Marsden, 2003), 5–7.

45 For example, Yate, *An Account of New Zealand and of the Formation and Progress of the Church Missionary Society's Mission in the Northern Island* (London: R.B. Seeley and W. Burnside, 1835), 137; Polack, *Manners and Customs of the New Zealanders,* 2 vols (London: James Madden, 1840), I, 108–9. For a useful discussion on the "contagious" nature of tapu, see Best, *Maori Religion and Mythology: Part 2*, 16, 19.

46 See the pēpeha (traditional saying) that recalls the Waikato tohunga Kiki "Ngā uri a Kiki whakamaroke rākau." "The descendants of Kiki who withered trees." Or the pēpeha relating to the tapu shadow of the chief Hae. "Whati ngā ope a Mōkau." Pēpeha 2085 and 2664 in Sidney Moko Mead and Neil Grove, *Ngā Pēpeha a ngā Tīpuna: The Sayings of the Ancestors* (Wellington: Victoria University Press, 2001), 335, 425.

47 Te Rangi Hīroa, "Medicine amongst the Maoris," 21.

48 Ibid., 30.

49 Mead, *Tikanga Māori,* 46.

50 An excellent discussion of the ways in which tapu was encoded in the landscape by human forces—war, migration, settlement—and its centrality in Māori efforts to manage the consequences of both inter-tribal conflict and colonization in the middle of the nineteenth century is offered in Jeffrey Sissons, *The Forgotten Prophet: Tāmati Te Ito and His Kaingārara Movement* (Wellington: Bridget Williams Books, 2023).

51 Marshall Sahlins, "Hierarchy and Humanity in Polynesia," in Antony Hooper and Judith Huntsman (eds.), *Transformations of Polynesian Culture* (Auckland: Polynesian Society, 1985).

52 Marshall Sahlins, *Islands of History* (Chicago: University of Chicago Press, 2013 [1985]), 14. On Sahlins and the distinctive Chicago approach to Indigenous ontology, see Martin Holbraad and Morten Axel Pedersen, *The Ontological Turn: an Anthropological Exposition* (Cambridge: Cambridge University Press, 2017), especially 56.

53 Marshall Sahlins, *How "Natives" Think: about Captain Cook, for Example* (Chicago: University of Chicago Press, 1995).

54 J. C. Beaglehole (ed.), *The Endeavour Journal of Joseph Banks*, 2 vols (Sydney: Angus and Robertson, 1962), II, 35–6.

55 Beaglehole (ed.), *The Endeavour Journal of Joseph Banks*, II, 4.

56 J. C. Beaglehole (ed.), *The Journals of Captain James Cook: Volume I: The Voyage of the Endeavour, 1768–1771* (Cambridge: Hakluyt Society and Cambridge University Press, 1955), 538–9.

57 Tony Ballantyne, *Orientalism and Race: Aryanism in the British Empire* (London: Palgrave, 2002) and Ballantyne, *Entanglements of Empire: Missionaries, Māori, and the Question of the Body* (Durham, NC: Duke University Press, 2014).

58 White, *Ancient History of the Maori, Vol. V*, 121–8.

59 John Gascoigne, *Joseph Banks and the English Enlightenment: Useful Knowledge and Polite Culture* (Cambridge: Cambridge University Press, 1994) and Gascoigne, *Science in the Service of Empire: Joseph Banks, the British State and the Uses of Science in the Age of Revolution* (Cambridge: Cambridge University Press, 1998).

60 Richard Drayton, *Nature's Government: Science, Imperial Britain, and the "Improvement" of the World* (New Haven: Yale University Press, 2000).

61 It is significant to note that Linnaeus' scheme included regnum laideum (the mineral kingdom) alongside animals (regnum animale) and plants (regnum vegetabile).

62 Patricia Fara, *Sex, Botany and Empire: the Story of Carl Linnaeus and Joseph Banks* (New York: Columbia University Press, 2004).

63 White, *Ancient History of the Maori, Vol. V*, 121–8.

64 Priya Satia, *Empire of Guns: The Violent Making of the Industrial Revolution* (Stanford: University Press, 2018).

65 John Brewer, *The Sinews of Power: War, Money, and the English State, 1688–1783* (Cambridge: Harvard University Press, 1990); Lawrence Stone, *An Imperial State at War: Britain From 1689–1815* (London: Routledge, 1994); C. A. Bayly, *Imperial Meridian: The British Empire and the World, 1780–1830* (London: Longman, 1989).

66 Beth Fowkes Tobin, *The Duchess's Shells: Natural History Collecting in the Age of Cook's Voyages* (New Haven: Yale University Press, 2014); John M. MacKenzie, *Empire of Nature: Hunting, Conservation, and British Imperialism* (Manchester: Manchester University Press, 1988); for a later period see in John Miller, *Empire and the Animal Body* (London: Anthem, 2012), 57–96.

67 Elsdon Best, *Maori Religion and Mythology: Part 2* (Wellington: P. D. Hasselberg, 1924), 53; Tamati Ranapiri, "Ancient Methods of Bird-Snaring amongst the Maori," [trans. S. P. Smith], *Journal of the Polynesian Society* 4 (1895): 143–52.

68 Mānuka Henare, "'Ko te hau tēnā o tō taonga … ': The Words of Ranapiri on the Spirit of Gift Exchange and Economy." *The Journal of the Polynesian Society* 127, no. 4 (2018): 451–63.

69 Henare, "'Ko te hau tēnā o tō taonga …, '," 453; here he is following a characterization by the expert on tikanga, Māori Marsden.

70 Salmond, *Tears of Rangi*, 3, 305.

71 William Brougham Monkhouse, *Journal of HMS Endeavour,* October 8, 1769, qMS-1376, Alexander Turnbull Library.

8

Papering over Muddy Histories: Imperial Logics of Space in the Anthropocene

Debjani Bhattacharyya

In 1780, a landlord from Dhaka, in present-day Bangladesh, sought reprieve from paying revenue from the newly established Shubhedar (revenue farmer) the East India Company. His contention was that during certain months of the year, he owned a water body and not a piece of land. Such a transformation of the land beneath his feet nullified the East India Company's legal claims to any "land" revenue from the bodies of water he owned. To quote his letter to the revenue board:

> the Country, during several Months of each Year, is so totally Over flown that all Communication between the Villages, except by Water is cut off; indeed the Face of it resembles an Extensive Sea with small Eminences of inhabited Islands rising at irregular Distances from each other above its Surface—During those Monthes therefore the Zemindars or Land Holders are changed into Samunderdars or Proprietors of Sea or Water and Duties that Government may expect them in the Former Character, in the Latter they can not possibly fullfil.[1]

He attempted to escape the harsh revenue demands by exploiting severe weather conditions and in turn attempted to challenge the imperial logics of extraction. While this might be an instance of clever legerdemain on his part to test the ingenuity of his new landlords, this historical conjecture in imperial earth hunger demands that we focus our macroscopic attention to the muddy logics of property. While post-humanist scholarship might see the vibrant matter of nature (or mud in this context) challenging imperial expansion,[2] such was unfortunately not the case. On the contrary, this chapter argues two things: (a) it is far more critical that we pay attention to what gets framed as ecological limits in such tropical, monsoonal landscapes and (b) how such limits were overcome. Indeed, paying careful attention to these questions shows how the

story of imperial capital and colonial extraction was literally underwritten by financializing moments of environmental crisis.

Contemporary climate crisis is manifesting itself among other things through unprecedented coastal erosion. As coastlines are being redrawn, drainage patterns sculpted anew, and maritime boundaries are in flux, new legal battles over geographical delimitation of national boundaries are erupting.[3] Amidst the fluidity of landscapes, the cement lobby and disaster experts are rapidly expanding seawalls and embankments in the name of future-proofing the so-called "climate disaster zones."[4] Within the legal sphere, climate crisis and the Anthropocene are opening new resource frontiers.[5] In this backdrop, perhaps the claim of the Samunderdar allows us to see them presaging claims that belie anxieties around control, occupation, and capital accumulation. Today some of these anxieties also unfold as crisis in territorial delimitation.[6] Ecologically fragile spaces are spaces of extraction and accumulation. These are the fragmented territories of the Anthropocene, riven with the claw marks of imperialism and the cataclysmic effects of present-day corruption.

This chapter will turn to the multiple paper lives of the land-water-scape to explore the colonial logic around amphibious spaces and how they generated new modes of legal prospecting for ownerships. Turning to amphibious geographies to understand various legal measures of occupation I build upon Renisa Mawani's seminal work on legalities that cohere to such amphibious spaces.[7] I extend her analysis with Surabhi Ranganathan's conceptualization of law's extractive imaginary over marine environments to spaces of flux in the littorals.[8] That allows me to study the history of these spaces as anticipatory forms of claim-making. They do not presage territories in flux in the climate crisis, but rather the multiple instantiations and reformulation of extractive logics that can remain at play irrespective of and in spite of the climate crisis that is reshaping the face of the earth. Indeed, when we study the extractive imaginary that was used to tackle through law these territories in flux, what becomes clear is how ecological limits to property regimes and resource grab were overcome through a series of "ecological fixes"—fixes that recompose over time.[9]

In the century following the petition of 1780, multiple attempts were made to claim certain kinds of legal futures based upon hypothetical imaginations of the mobile and seasonal tropical landscape of the eastern delta of the Indian subcontinent. Sometimes through arguments, other times through sketches and drawings made by law commissioners, revenue department officials and district officers explored a series of questions. The object at moot was how to split a river so as to create and occupy future lands. The next sections of this

chapter will return to these legal debates to answer the following questions: How did moving alluvium of the turbid Ganga-Brahmaputra delta-system intersect with everyday bureaucracy of colonial legal practices through the nineteenth century? What happened when agrarian revenue generating land turned into water? What happened when rivers shifted course and created new islands? While scholars have begun to pay attention to the contestations on ground over alluvion and silty sediments, this chapters turns to how these amphibious spaces or their imagined emergence created new diplomatics which in turn shaped epistemic virtues around truth claims.

Imaging Land

The landlord from Dhaka did not receive his requested reprieve. Curious as his case is and the novel legal arguments that this geography allowed him to make in the court, he was not alone. In 1793 the East India Company implemented the Permanent Settlement Act of Bengal, with the intention of stabilizing agrarian property ownership and incentivizing agricultural productivity along physiocratic lines.[10] Permanent Settlement was supposed to fix rent in perpetuity, to introduce the lineaments of English private property, and foster a class of politically reliable Indian entrepreneurs with solid interest in land as a means with which to secure the permanence of dominion. Summarizing the various notes of contemporary caution, one of the settlement's finest historians, Ranajit Guha, remarked, "Conceived, in its final form, as a policy of capitalist enterprise in agriculture, the Permanent Settlement needed a sovereign home market for its potentialities to mature."[11] That sovereign home market, as historians have repeatedly shown, never came to fruition, and much historical ink has been spilled about the failure of the settlement beginning with accounts about the nature of the feudal relations, the misreading of ancient customs, and the more mundane history of the disappearance of communal embankment maintenance.

Yet, more recently a new strand of argument has returned us to the history of property in this oozy, muddy landscape.[12] As environmental historian Erica Mukherjee argues, what the Permanent Settlement Act also did was impose a legal fiction of stability over the unstable riparian landscape of Bengal. It is within the pre-history of the promulgation of this act that we can read the Samunderdar's petition to seek reprieve from taxation on submerged lands. Submerged lands posed a legal dilemma and an economic limit. That was reconceived as an ecological limit to capital's expansion. As recent scholarship

has begun documenting, the district courts in and across the Gangetic plains were filing up with lawsuits in the wake of the 1793 Permanent Settlement Act. Indeed, Mukherjee shows us how the impermanent and seasonal landscape of the Bengal delta revealed the Permanent Settlement Act as an attempt by the East India Company to become "familiar with the mercurial environment of Bengal in the decades following their grant of the Diwani (right to collect land tax revenue) in 1765."[13]

Rivers in the Ganga-Brahmaputra-Meghna Rivers heave with silt as they meander their way into the Bay of Bengal, and following every monsoon, they deposit sediments which sometimes form into temporary landscapes. Riverine sediments or accretions are known as *char* in lower Bengal delta, and *diara* in upper Bengal delta. These are temporary, shifting and flood prone islands with a contested ownership history. Chars consist of fine silt and alluvium and are extremely fertile, while diaras are composed of coarser sand. The status of char as property occupied an undefined zone till the early decades of the nineteenth century. These temporary landscapes that formed in the course of deltaic movements, though bitterly fought over by farmers and landowners, hardly entered the revenue rolls of accounting if they did not exist for twenty years. Only an 1825 regulation of the Bengal government articulated a legal language around these landscapes as alluvion and avulsion through the Bengal Alluvion and Diluvion Act (BADA hereafter).[14] This came in the wake of the cases that piled up in the district courts, following the 1793 Permanent Settlement. Indeed, one may read the BADA's multiple regulations to acquire land, "drains," "creeks," and nalas (spill channels) of this fluvial landscape as attempts at acquiring land that emerged as anomalous within the legal imaginary of the Permanent Settlement Act. However, the BADA alone could not fix the landscape nor adjudicate the cases. The legal cases were so numerous, that the Board of Revenue in 1846 had to pass a moratorium in admitting alluvion cases into the court. Mukherjee explores how this was just a stop-gap measure to manage the permanent legal measures that could not manage the material fluctuations of the deltaic landscape. Thus, in her reading she shows how the landscape ultimately undid the legal force of the rule of property that the Permanent Settlement sought to unleash.

However, even though the 1846 moratorium might have stopped petitions like Samunderdar's attempts to thwart the earth hungry East India Company from remaking older extractive measures, such legal struggles over land-water admixture had a longer afterlife. The question to ask is if we can read the various acts and moratoriums as an early instantiation of an ecological

fix, where irrespective of environmental and ecological conditions, sources of revenue remained uninterrupted. Developed in the context of coastal fishery in postcolonial India, Ramesh and Rai define ecological fix as "a token spatial solution that removes environmental barriers to the accumulation of capital, and we describe how a combination of neoliberal actors has maintained it for more than two decades so as to greenwash subsequent industrialisation along the coast."[15] Their concept can be extended back to see how amphibious spaces instead of being a limit to either revenue extraction or infrastructural development were generative of profits and more elaborate forms of land acquisition.[16] Indeed, whenever the ontology of land was threatened by oozy mud or stagnant water the Company and later Crown found ways to impose quasi-eminent domain status upon them.[17] But in these ecological spaces the spirit of the law resided not just in the letter, but also in the lines drawn—since some of the legal actors drew profuse lines—imagined or otherwise between land and water. Therefore, let us turn to the drawn lines, imagined or representing imposed and readable borders.

Taking Land

Legal historians Mitch Fraas and Nurfadzilah Yahaya have pointed our attention to the complicated legal lives of the amphibious areas of the space between high tides and low tides and the foreshore in the territories controlled respectively by the British East India Company and the Dutch Vereenigde Oostindische Compagnie.[18] Turning to the submerged archive of marshes, foreshore and tidal landscapes reveals that sketching and drawing became key to this particular legal imaginary and its extractive logic. The period discussed above was also one of papereality.[19] This was also the time when attempts were being made to standardize the writing and formulation of property deeds or *pattah*, viz. namely that they should demarcate boundaries. In a plan to build a harbor, submitted by an English merchant, Benjamin Lacam, in 1776 we see some of the processes at play. Lacam had received a land grant of 100 acres from the East India Company in 1770 to execute a harbor. In 1776 he sought to renew the land grant as well as requested 300 more acres. This necessitated a land survey by the Revenue Board. The Revenue Board debated on how to define what they called "the space of water" in the land grant, and ultimately settled on demarcating spaces with alphabets, which find no corresponding text in the Bengali pattah. The plan maps out an island called Clive Island. Given that the island's borders were

dotted, as are many of the structures outlined, one assumes this was an area full of tidal flats and sandbanks. These are common ecotonal spaces in the Bengal Delta. The Clive Island in this plan is lapped by Channel Creek. Across this rather narrow channel is the place where Lacam planted his harbor. The channel meanders here, creating a safe haven for a harbor. The harbor is demarcated with straight lines, depicting multiple wet and dry docks, and a neatly laid out shed. In this plan we witness here for the first time attempts at drawing and demarcating property boundaries within water with alphabets which will be used extensively over the next century. While Lacam's plan used only two letters G and D, by the next century with the professionalization of engineering drawings most such diagrams used A, B, C, D to demarcate points in the moving riparian landscape.[20]

There are dotted lines on the water connecting points G and D, and these lines imagine spaces where mapping had reached its limit of representation. Drawing emerges here to mark both the presence and absence of land. This image also shaped the legal arguments that could and could not be made when the case was debated first in the Mayor's Court in Calcutta in 1776 and then at the Privy Council in London in 1802. Whether the land depicted in the plan is a figment of Lacam's imagination became moot in the judgment, with land surveyors refusing to survey the space because of the excessive presence of water, or hydrographers unable to take accurate depth sounding because the tides in the region thwarted any possibilities of a fixed boundary separating land from water.[21]

Drawing thus performed much more than seeing property in place.[22] Drawing and sketching within legal documents require us to see them neither as evidence nor as truth claims. Indeed, following Samantha Frost's theorization of the political and the biological as cultured, that is, we might read these imaginaries as configurations of "persuasion, manipulation, organization and contested and sedimented institutionalization."[23] Let me elaborate this point with another example. Legal sketches as discussed hereafter can be understood as professionalization of the ways of institutional seeing. Specifically they also operated as models to make legal arguments for and against. Therefore, turning to both the drawing and their relation to the text opens new ways of understanding what we may call the projective powers of law within the imperial context.

Sketches and imaging, such as the above, emerged in the paper archive of property disputes especially in cases where existing maps failed to represent the reality on the ground. The above sketch is from a petitioner, Benjamin Lacam, to the Revenue Board which ends up as a dispute and therefore archived as part of the Recorder's Court papers in Calcutta and also in the House of Commons

in London. The drawings allow him to make demarcations in water that the format of the *pattah* drawn up in 1776 disallowed him to. Drawing, therefore, emerges more as a projection and at the limits of the text as Lacam seeks to make a future legal claim upon the "space of the water."

However, as I have shown elsewhere the fluid nature of landscape in the Bengal delta meant that seasonal alluvial deposits and land submergence did not necessarily always disrupt the neat cartographic borders and lines on the property deed, as much as they allowed for embedding emergency provisions to claim and acquire land for the East India Company.[24] I argued that this allowed the Company to fashion itself as a public agent in land, especially the seasonal riverine sediments in eastern India. Emergency provisions to occupy these sedimentary landscapes were concretized through the passing of the Bengal Alluvion and Diluvion Act and thus standardized not just the administration of such spaces, but also shaped how the state came to see these spaces. As work by geographer Gopa Samanta and anthropologist Kuntala-Lahiri Dutt on the char landscape has shown, today such lands are sometimes also known as *bada-zamin* (BADA-land).[25] From a geomorphological perspective chars are defined as sandbars. Some older chars have become "permanent," while some appear or disappear overnight. Most chars take three to four years to rise above the high-water mark, and this temporality is critical in the shaping of the legal instrument of acquiring these land-water-spaces.

Splitting a River

How a papery regime of ownership was imagined through hypothetical models and sketches at an imperial scale is best illuminated when we turn to the afterlife of this regulation almost half a century later. If the fluid riparian landscape of the Indo-Gangetic deltas necessitated the introduction of new forms of legal instruments, we see how they were being turned into a primer to imagine and project possible and hypothetical shifts in land and water, which then became scalable models about land-water behavior. These were then used to delineate new territorial futures across the dry, wet, semi-arid, mountainous, and coastal spaces of the Indian subcontinent in 1881. The Government of India decided to pass an Alluvial Bill (Bill hereafter) pertaining to lands gained through the movement of the river and attempted to standardize adjudication of how to settle riverine boundary dispute and claims to lands made following the accretion of new lands and islands. An entire array of geometrical technicality was embedded into the Bill to affect the splitting of a river in equidistant manner to deliberate

upon the exact position of land gained (or lost) through alluvion or avulsion.[26] The Bill was met with equal degrees of enthusiasm and critique from all quarters of the ecological divides of the various provincial governments and riparian states. The debate whirled around multiple points: the definition of owners, the exact measurements, and ambiguities embedded in the term "imperceptible degrees" through which rivers meander, legal delimitations of terms like banks, frontage, etc. Question arose whether even "elementary geometrical conceptions" were well adapted for the workings of a "mofussil courts."[27] Denzil Ibbetson, who was then completing the population census in Punjab, wrote his opinion on the intense technicalization and mathematization in the bill, which was supposed to replace the fuzziness of local customs. He wrote to the secretary to the government in Punjab sharing his impressions of what might be possible at the *mofussil* (district) levels: "Not only would the language of the schedule be unintelligible to the majority of the native courts and even to not a few highly educated Englishmen, but the technical appliances at the disposal of the lower courts are insufficient for the application of the elaborate and delicate method which it is proposed to erect into law."[28] Even if some Englishmen had the technical disposal the question arose whether a line in the river is the same as that in a lake or even a sea.

Ibbetson also inferred that the rules made "the whole division of the land depend upon the thread of the stream in a river, and upon the general sweep of the bank in a sea or lake, and these are, I think, the proper determining lines. In fact, the rules simply express in technical language what is done by the people every year when they allot to each man the land 'opposite' his river frontage."[29] They were not just technical languages, but what is curious and important is that the technical language was accompanied by detailed diagrams. Images were explicatory, argumentative, and futural. These images were attempts to express in lines the legal world of territoriality that the rapidly shifting Indian rivers annually produced.

The inter-provincial debates focusing on the gap between the image and the written text of the Bill itself illuminate the fact that the provincial governments used phantasmatical hypothesis in their attempts to create what we may at best understand as an empirical generality about amphibious spaces whose possible representations mostly exceeded what cartography could alone produce. The Bill contains a wide array of the sketches by legal thinkers and state-level functionaries projecting land claims upon water.

How do we understand the sketches that intersperse the pages of the Bill? These sketches were neither diagrammatic representations of the text of the Bill, nor were they factual representations of real-life events. Rather these

sketches were legal arguments, which curated the world of law that it claimed to adjudicate.[30] It is instructive to read some of the dissent to the Bill drafted by the Law Commission, especially over terms of critical importance like fordability of newly formed lands, foreshore, frontage, depth, and ownership. These dissents came from all corners of the British Raj, from the shifting landscape of the Rajmahal hills in north-eastern India; from the engineered landscape of the canal colonies of Punjab in the west; from the arid landscapes of central India with its seasonally dry river beds; and from Bombay in western India which in its spurt of reclamation had declared all newly formed land, accreted, dredged, reclaimed, or man-made government land.

For instance, responding to the applicability of this Bill the Commissioner from the Central Provinces, a semi-arid area, pointed out the discrepancy between the textual legal imagination and the diagrammatic representation. F. C. Berry, the officiating secretary, points out that the rule proposed for deciding ownership of the newly formed island by "natural causes in a river" (1881: 8) was not perfect. While the rule of equidistance might allow the owners of the nearest bank to lay claim to the island, the Alluvial Bill adjudicating the land claim through riparian rights offered the land to the owner in whose waters the newly formed island was located. Thus the problem arose when one started making legal arguments not by deciphering the legal definition between frontage and riparian rights, but rather when they experimented with hypothetical representations of the possible scenarios. Ocularity changed the meaning of the legal text. What the diagram allowed Berry to do was ground and lend credibility to various new claims that might be opened up which would nullify or restrict the Crown's claims upon possible future accretions. It also allowed him to spatialize future claims. Indeed, these sketches along with the legal narrative of the Bill operated to naturalize the river, its shores, islands, and thereby lend credibility to the claims. They operated, in the words of Thomas Gieryn, as paper "truth-spots."[31]

For instance, the commissioner wonders, who would gain unfair advantage when the river makes a sharp turn on either of the boundaries. Would that result in the creation of new occupancy claims upon the island? He foresees multiple problems in this case that can only be solved by diagramming. The drafters of the Bill argued that drawing a line down the center connecting two points of A and B's estate, which are on two opposite sides of a river, could tackle any problems in a riverine landscape that was mobile and changeable. As the *amin* and *patwari* [revenue collectors] report back, lines are where the social and political life bristled with the power of the colonial state. These drawings revealed the hidden underbelly of the revenue extraction that the Bill failed to imagine.

As Berry pointed out, apart from the fact that drawing a dividing line would be politically fraught, drawing such a line proved impossible without extensive mathematical knowledge, which both the commissioners of the Central Provinces and those in Bombay felt were lacking amongst the revenue officials on ground. Diagrams allowed the law commissioners and their interlocutors to ground their law upon the *land*scape and plot possible futures. The dissenters from Central Provinces wrote: "It is hardly possible to discuss the question fully without resorting to diagrams"[32] (9) and wondered whether in the absence of visual legal arguments one may just restrict the Bill to a declaration of the rights of the Government against private persons making claims to such islands. The revenue department from Bombay expressed similar apprehension as the shortest dividing line drawn from "shore to shore or edge to edge" (15) conjured a whole host of legalities around height of the river, its depth, seashores, lakes, estuaries without which the Bill could neither be defined nor dispensed with. Moreover, they feared the very physical materialization of these lines by mendacious villagers, who might just about go building *bundhs* (embankments) in order to divert water and therefore siltation toward their frontage or riparian waters to make claims upon these spaces (16).

These sketches, substantially different from contemporary cartographic practices, instantiated the multiple ways fictitious land and muddy waters may be owned. These anticipatory drawing practices through the nineteenth century created a property-imaginary that conjured land in swamps, ponds, streams, spill-channels, and tidal flats. The lawyers and experts, people who sketched these images and those that interpreted them, saw these as exercises in securing future claims in possible lands. These imagined landscapes (not just property markers or boundaries) allowed for legal abstractions, or generalities that created epistemic values and made certain kind of claims possible. These pictorial legal projections of the imperial state and the people engaged in drafting and revising the Alluvial Bill of 1881 curated a particular legal world, in order to adjudicate extraction of particular forms of landed values from the watery spaces. Indeed, the sketches delineate the extractive logic of the law.

Conclusion

One may easily dismiss these as arcane finds in the East India Company archives. After all, if colonial historiography has been dominated by histories of property, occupation, possession, territory-making, and sovereignty, how come these

legal drawings remained marginalia in the existing historiography? Perhaps, in the contemporary moment, when climatological and eco-social crises mean mountain patterns and coastlines are being violently redrawn by landslides, cloud bursts, cyclones, hurricanes, and storm surges are making some islands disappear permanently, new visual and analytical frames are illuminating these archival marginalia. The contemporary moment demands a new visual literacy and new perspectives as we become acutely aware of the frailty of the maps, which only a decade earlier we read as the all-seeing eye of the state.[33] Cartography was indeed central to the geopolitics of decolonization, from the violent border commissions in South Asia to the highly charged negotiations of international river boundary treaties across the globe. Yet this cartographic reality is now circumscribed by the territorial and atmospheric transformations of a climate changed world. Yet, another ecological fix is working its way now, reproducing some of the earlier imperial logics cultured within a neoliberal framework.

In closing then, let us return once again to the littoral of the cyclonic Bay of Bengal. In a cruel postcolonial twist, these sediments, accretions, and islands, which are hard to fix through engineering or legal projections, have again become the laboratory of experimenting with international humanitarian crisis. The recent crisis in Myanmar saw a massive movement of the Rohingya trying to escape ethnic cleansing. Many of them slipped through the borders into Bangladesh, which also opened the doors to those escaping the violence. Housed in the swampy refugee shelters of Cox Bazaar, they have recently been relocated by the United Nations to the Bhashan Char. This is a sedimentary island in the middle of the Bay of Bengal, whose legal and material life is no more than a mere twenty years when accretion and oceanic currents formed it. It has been chosen as the site for the UN resettlement camp for the stateless Rohingya refugees.[34] Bhashan means both floating and immersion in Bengali. The refugees seem doomed to these floating, carceral maritime geographies. These geographies which a century earlier were understood as ecological limit spaces are becoming new sites of disastrous humanitarian experiments.

Using the analytic of "sedimentary logics," geographer Lindsay Bremner rearticulated the statelessness of the Rohingyas as not just one where their rights emanating from the state are denied, but "this denial includes denial of *jus soli*, the law of the soil, […]. To be stateless is not only a juridical category, but also a material, environmental one—denial of access to soil. This does not mean that the stateless are without soil, but rather that their access to soil is fragile, tenuous and always provisional."[35] Scholars have shown how some of the most precarious people live on the transient sedimentary char landscapes, which move around

and sometimes disappear with monsoons.[36] The exact location of Bhashar char had been confused for a while, with people landing up at Thengar or Piya char. As Bremner documents, sometimes reporters, government agencies, and the UN taskforce mistakenly land up in other chars refer to or take pictures of yet another char as the site of resettlement, causing massive embarrassment for the Bangladeshi government. One cannot blame these hapless workers, since mobile landscapes are hard to map. Even their coordinates are hard to fix through GIS technology. Thus highly sophisticated land visualizing technologies meet their limits due to the turbid and churning waters of the Bay of Bengal. To clear the confusion over these mobile spaces, the prime minister of Bangladesh changed the name of Thengar char to "Bhasan." Bremner explained that this change in name must also be read as a method to manage the humanitarian assemblage of people, aid, medicine, surveillance, aid workers, and development brokers circulating through this fragile ecology floating in the Bay of Bengal. If Bhashan Char shows us anything, it presages a terrible future where state-led land grabs which turn into ethnic cleansing will see the victims consigned to these floating carceral geographies on the one hand, and those that do the grabbing will offshore their wealth and attempt to sea stead their way out of the crisis in floating sea-cities guarded by private armies.[37]

Muddy histories are cultured and recomposed at the conceptual margins of property, territory, and sovereignty. Turning to the various instantiations of law's extractive logic at play in these fragmented territories of the Anthropocene required what Macarena Gomez-Barris (2017) called the "submerged perspectives." From the submerged angle we can begin visualizing the complicated and entangled history of environmental crisis and state power. It allows us to recover those moments when ecological limits posed by amphibious spaces made extraction messy and complicated as well as excavate the history of the present to trace the iterations of capital that law undergirds in the contemporary moment of climate crisis.

Notes

Though the diagrams referred to in the text are key to visualizing my arguments, due to the 2023 malware attack the entire British Library system, which shut or slowed down operations well into the summer of 2024, I was unable to obtain permissions and so could not reprint them here.

1 Add MS 60338, British Library. I thank Tiraana Bains for bringing this to my attention.
2 Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Raleigh: Duke University Press, 2010).
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5 Surabhi Ranganathan, "Ocean Floor Grab: International Law and the Making of an Extractive Imaginary." *European Journal of International Law/ Journal européen de droit international* 30, no. 2 (2019): 573–600; S. Árnadóttir, "Fluctuating boundaries in a changing marine environment." *Leiden Journal of International Law* 34, no. 2 (2021): 471–87. doi:10.1017/S0922156521000145.
6 Debjani Bhattacharyya, "A River Is Not a Pendulum: Sediments of Science in the World of Tides." *Isis* 112, no. 1 (2021): 141–9.
7 Renisa Mawani, "Law, Settler Colonialism, and 'The Forgotten Space' of Maritime Worlds" (October 2016). *Annual Review of Law and Social Science* 12 (2016): 107–31, Available at SSRN: https://ssrn.com/abstract=2870880 or http://dx.doi.org/10.1146/annurev-lawsocsci-102612-134005.
8 Ranganathan, "Ocean Floor Grab," 596–7. See also her "Techno-Utopia of the Deep," *Fifteen Eighty Four*, http://www.cambridgeblog.org/2015/10/techno-utopia-of-the-deep/.
9 Madhrui Ramesh and Nitin D. Rai, "Trading on Conservation: A Marine Protected Area as an Ecological Fix," *Marine Policy*, 82 (2017): 25–31, https://doi.org/10.1016/j.marpol.2017.04.020.
10 The historiography of Permanent Settlement is too vast and numerous. For some critical works that explore the political and intellectual history see: Ratna Ray, "Land Transfer and Social Change under the Permanent Settlement: A Study of Two Localities", *Indian Economic Social History Review* 11, no. 1 (1974): 1–45; Sirajul Islam, *The Permanent Settlement in Bengal* (Dhaka: Bangla Academy, 1979); Nicholas Dirks, "From Little King to Landlord: Property, Law and the Gift under the Madras Permanent Settlement," *Comparative Studies in Society and History* 28, no. 2 (1986): 307–33; Ranajit Guha, *A Rule of Property for Bengal: An Essay on the Idea of Permanent Settlement* (Durham: Duke University Press, 1996).
11 Guha, *A Rule of Property*, 200.
12 Debjani Bhattacharyya, *Empire and Ecology in the Bengal Delta: The Making of Calcutta* (Cambridge: University of Cambridge Press, 2018).
13 Erica Mukherjee, "The Impermanent Settlement: Bengal's Riparian Landscape, 1793–1846." *South Asian Studies* 36, no. 1 (2020): 20–31. doi: 10.1080/02666030.2019.1592941. See also Nitin Sinha, "Fluvial Landscape and

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14 Debjani Bhattacharyya, "Discipline and Drain: Settling the Moving Bengal Delta." *Global Environment* 11, no. 2 (2018): 236–57, https://www.jstor.org/stable/26500366.

15 Ramesh and Rai, "Trading on Conservation," 25.

16 Debjani Bhattacharyya, "Fluid Histories: Swamps, Law and the Company-State in Colonial Bengal." *Journal of the Economic and Social History of the Orient* 61, no. 5/6 (2018): 1036–73, https://www.jstor.org/stable/26572329.

17 Bhattacharyya*, Empire and Ecology*.

18 Arthur Mitchell Fraas, "'They Have Travailed into a Wrong Latitude:' The Laws of England, Indian Settlements, and the British Imperial Constitution 1726–1773," 2011, https://dukespace.lib.duke.edu/dspace/handle/10161/3954. Nurfadzilah Yahaya, "Legal History Blog: Reclamation." *Legal History Blog* (blog), September 22, 2020, http://legalhistoryblog.blogspot.com/2020/09/reclamation.html.

19 Bhavani Raman, "The Duplicity of Paper: Counterfeit, Discretion, and Bureaucratic Authority in Early Colonial Madras." *Comparative Studies in Society and History* 54, no. 2 (2012): 229–50, http://www.jstor.org/stable/41428497.

20 Due to the 2023 ransomware incident at the British Library, it was not possible to get the images on time for this chapter. So the plans have been replaced with descriptions. Papers concerning Benjamin Lacam and the New Harbour in Bengal, IOR/H/Misc/396: 1765–1809. British Library, London.

21 For a detailed discussion of the case see Bhattacharyya, *Empire and Ecology*, 45–76.

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23 Samantha Frost, *Biocultural Creatures: Toward a New Theory of the Human* (Durham and London: Duke University Press, 2016), 158.

24 Bhattacharyya, "Fluid Histories."

25 Kuntala Lahiri-Dutt and Gopa Samanta, *Dancing with the River: People and Life on the Chars of South Asia* (New Haven: Yale University Press, 2013).

26 Bill to Change the Aluuvial Law 1818, IOR/L/PJ/6/55 -1756, British Library.

27 Opinion on Alluvion Bill No. III, Prog No. 1023, July 9, 1881, Alluvion Bill, p. 2.

28 Ibid., 2.

29 Ibid., 6.

30 Mariana Valverde, *Law's Dream of a Common Knowledge* (Princeton NJ: Princeton University Press, 2003).

31 Thomas F. Gieryn, *Truth-Spots: How Places Make People Believe* (Chicago: Chicago University Press, 2018).
32 G. H. Trevor, "A Paper Relative to the Bill (No. III) to define and amend the law relating to alluvion, islands and abandoned river-beds," Proceeding no. 43 of the Alluvion Bill, p. 2.
33 James Scott, *Seeing Like a State: How Certain Schemes to Improve Human Condition Have Failed* (New Haven: Yale University Press, 1999).
34 Bhashan was previously known as Thengar Char.
35 Lindsay Bremner, "Sedimentary Logics and the Rohingya Refugee Camps in Bangladesh." *Political Geography*, 77 (2020): 2.
36 Lahiri-Dutt, *Dancing with the River*, see esp. chapters 2 and 3.
37 Raymond Craib, *Adventure Capitalism: A History of Libertarian Exist, from the Era of Decolonization to the Digital Age* (New York: PM Press, 2022).

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