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Not all Humans: Radical Criticism of the Anthropocene Narrative

Hasana Sharp

Abstract: Earth scientists have declared that we are living in "the Anthropocene," but radical critics object to the implicit attribution of responsibility for climate disruption to all of humanity. They are right to object. Yet, in effort to implicate their preferred villains, their revised narratives often paint an overly narrow picture. Sharing the impulse of radical critics to tell a more precise and political story about how we arrived where we are today, this paper wagers that collective action is more effectively mobilized when we identify multiple agencies and diverse historical processes as sites in need of urgent intervention.

Keywords: please provide up to 6 key words

Following a proposal by Paul Crutzen and Eugene Stoermer, earth scientists have come to refer informally to our geo-historical situation as the "Anthropocene,"¹ the time of the human. A recent comprehensive review of the data concludes that "Human activity is now global and is the dominant cause of most contemporary environmental change. The impacts of human activity will probably be observable in the geological stratigraphic record for millions of years into the future, which suggests that a new epoch has begun."² A planet of 4.5 billion years has seen many epochs, but at some point human activity

^{1.} Paul Crutzen and Eugene Stoermer, "The Anthropocene," *IGBP* [International Geosphere-Biosphere Programme] *Newsletter* 41 (2000): 14–18.

Simon L. Lewis and Mark A. Maslin, "Defining the Anthropocene," *Nature* 519 (2015): 171.

Hasana Sharp, **you may pure de your title and department**. E-mail: hasana.sharp@mcgill.ca

became so disruptive that it will likely be credited with ushering in "the sixth extinction," a devastating loss of life and biodiversity that very well may imply the eventual end of human beings ourselves.³ Earth scientists are actively debating the precise dating of the not yet formalized Anthropocene epoch, fully aware that the date will have immense implications for social policy, including how to pay the costs of what is rather delicately called "climate adaptation." Lewis and Maslin observe,

defining an early start date may, in political terms, 'normalize' global environmental change. Meanwhile, agreeing [to] a later start date related to the Industrial Revolution may, for example, be used to assign historical responsibility for carbon dioxide emissions to particular countries or regions during the industrial era.⁴

The project of determining the name and date for our novel geohistorical situation is evidently moral and political. The name means to sound the alarm of increasing ecological precarity, but it also points to the question of "historical responsibility." Such responsibility will likely include some financial obligation to address past, present, and future devastation, although wealthy nations have so far strongly resisted any formal accounting system for environmental destruction.⁵

Many radical critics have resisted the proposed appellation of "the Anthropocene." Whereas natural scientists call attention to the problems humanity poses to planetary atmospheric, chemical, and biotic systems, radical theorists overwhelmingly object to the biological idiom of species. The "Anthropocene" expresses a sudden disregard for the important distinctions among us, the understanding and critique of which is the object of much work in the social sciences and humanities.⁶ What about differences in power that are systematically instituted along the lines of nation, class, race, sex, and ability? What about the dramatic disparities in causal responsibility for the advent of climate disruption? As Christophe Bonneuil and Jean-Baptiste Fressoz put it in their impressive overview of Anthropocene discourses, "Should the Yanomami Indians who hunt, fish, and garden in the Amazonian forest, working three hours a day with no fossil fuel [...] feel responsible for the climate change of the An-

^{3.} See Elizabeth Kolbert, The Sixth Extinction (New York: Henry and Holt, 2014).

^{4.} Lewis and Maslin, "Defining the Anthropocene," 171.

^{5.} See Neil Adger, Jouni Paavola, Saleemul Huq, and M. J. Mace, eds. *Fairness in Adaptation to Climate Change* (Cambridge, MA: The MIT Press, 2006).

^{6.} For example, Andreas Malm and Alf Hornborg, "The Geology of Mankind? A Critique of the Anthropocene Narrative" *The Anthropocene Review* 1 (2014): 62–69.

thropocene?"⁷ Several alternative names have been proposed in order to better target the forces responsible for this epochal shift, including "Capitalocene,"⁸ "Eurocene,"⁹ and "Oliganthropocene."¹⁰ When earth scientists increasingly agree that "man," humanity, or *Anthropos*, is the problem for life on this planet, radical critics frequently retort "not all humans."

Such critics are undoubtedly correct in this assertion. *Anthropos* as such is not a unitary super-agent that has precipitated grave ecological destruction. The problem is not the inevitable unfolding of species development, but is "sociogenic."¹¹ Radical challenges concerned to understand more precisely the mechanisms and agencies that have precipitated climate change and mass extinction are important and necessary. Effective responses to our predicament demand richer analyses of the complex network of causes that have produced and continue to sustain ecological precarity.

Nevertheless, I want to offer an immanent critique of the radical responses to the Anthropocene narrative. Although I hope to encourage and contribute to radical ecological politics today, there is a feature of the discourse that I find to be strategically and normatively limiting: the impulse to conflate the tracing of causality with the identification and, most importantly, the *isolation* of those morally responsible. This impulse is not equally prominent in the different critics I will discuss, but is present to some degree in all. It betrays itself in the tendency to point to a particular "clique,"¹² or to those who "knowingly" and willfully advocate and exploit ecologically destructive policies.¹³ Many radical thinkers worry that the Anthropocene thesis implicates everyone equally, including those who have contributed the least but are poised to suffer the most from environmental destruction. These protests on behalf of the innocent cast the debate as a contest over moral culpability, and lead, naturally enough, to

12. Malm and Hornborg, "The Geology of Mankind," 64.

^{7.} Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene* (London: Verso, 2015), 70.

^{8.} See, Jason Moore, Capitalism in the Web of Life (London: Verso, 2015).

^{9.} Gilbert Caluya, "Fragments for a Post-Colonial Critique of the Anthropocene," in *Re-thinking Invasion Ecologies from the Environmental Humanities*, edited by J. Frawley and I MaCalman (London: Routledge, 2014).

^{10.} This is Eric Swyngedouw's term to indicate "an epoch of a few men and even fewer women," cited in Bonneuil and Fressoz, *The Shock of the Anthropocene*, 71.

^{11.} Malm and Hornborg, "The Geology of Mankind," 66.

^{13.} This is the emphasis of Bonneuil and Fressoz who insist that "we must understand how we entered the Anthropocene *despite* very consistent warnings, knowledge, and opposition" (*The Shock of the Anthropocene*, 79).

identifying preferred villains. Radical thinkers have contributed invaluable analyses to the problem of climate change, but the flashes of moral indignation risk isolating the forces of harm to captains of industry, oil tycoons, and members of the ruling class. The Anthropocene thesis must be refined. It is false and politically unhelpful to declare that the human species is the unitary cause of climate disruption. However, if the goal of radical criticism is to politicize the Anthropocene narrative, then we must be wary both of moralizing it and of reducing the causal analysis to one set of actors or a single nefarious process. Deconstructing the Anthropocene narrative entails discovering the unevenness and dispersion of the causal processes as well as examining our geohistorical situation's overdetermination and the non-linear processes through which we have arrived where we are today. Given the complex and dispersed character of ecological devastation, our analysis and politics should likewise enable diverse sites of intervention.

#NOTALLANTHROPOI

The adoption by earth scientists of the informal name "Anthropocene" opens a dialogue among natural scientists, humanists, and social scientists. For those of us outside the natural sciences, the naming of the Anthropocene both disturbs and confirms operating assumptions in our disciplines. On the one hand, it validates-for better and for worse-special attention to humanity as a uniquely important subject, essential not only to our own self-understanding but to the evolution of our planet's systems and the millions of other species that depend on them. On the other hand, it exhorts us to pay much more precise attention to how we affect other species, nonhuman phenomena, and complex planetary systems. We do no act in a uniquely human realm, affected only by moral laws. Rather, we obey but also mutate natural laws, global rhythms, and relationship patterns among organic and inorganic matter. Our story is undeniably no longer (if it ever was) our own. But for those of us working in traditions of radical or critical theory, our task has been to complicate invocations of a universal "we," appeals to humanity as a unified whole. Therefore, the Anthropocene sounds to many feminist, Marxist, postcolonial, and antiracist critics like a step backwards.

When I refer to radical critics, I mean those theorists who maintain the need for comprehensive social and political change. They insist that justice cannot be achieved while the dominant social structures remain intact. For Marxist critics of climate change, for example, it is not possible to address climate change without fighting the dominant mode of production: capitalism. This is a wide umbrella, but it excludes those theorists of climate justice who, for instance, propose ameliorating ecological harm through purchasing carbon offsets, corporate taxes, and international agreements alone.¹⁴ Radical accounts do not yield counsel for policy reform or adaptation through individual moral restraint and expert-guided technological innovation. Rather, they call for comprehensive, collective, global change. They exhort us, in our efforts to stem the tide of ecological devastation, to fight capitalism, colonialism, militarism, and/or species supremacy. In their ambition for comprehensive social transformation, radical critics call attention to how the social structures that have given rise to ecological precarity have long thrived on producing precarious life for humans and nonhumans alike. Business as usual, even if much more tightly regulated, is still a business of domination, exploitation, and violence against the many (humans and nonhumans). For critics whose work is defined by identifying radical differences in power, the social structures that support and perpetuate them, and articulating the desire and means for radical transformation, the Anthropocene sounds like a return to an uncritical universal invocation of undifferentiated humanity.

One of the first problems is that the term Anthropocene seems to confirm rather than to challenge both anthropocentrism and speciesism.¹⁵ A frequent refrain in the Anthropocene literature is that the human species has become an "overwhelming" geological force, an awesome and unprecedented power, dwarfing that of any other species in the planet's 4.5 billion year history.¹⁶ Eileen Crist claims that, even if the name aims to call attention to the deadly disruption of the conditions of life as we know it on the planet, the discourse does nothing to challenge the notion of human supremacy and specialness: "Cold and broken though it be, it's still a Hallelujah."¹⁷ Even if it signals the decline of Human Empire, the Anthropocene remains a story about human hegemony.¹⁸ Much Anthropocene discourse suggests plainly that we made earthly reality what it is and it is our duty to return it to a state that is habitable for humans.

^{14.} For example, John Broome, *Climate Matters: Ethics in a Warming World* (New York: Norton, 2012).

^{15.} Claire Colebrook argues that the Anthropocene confirms human exceptionalism, if not anthropocentrism. See her *Death of the Posthuman*, vol. 1 (Ann Arbor, MI: Open Humanities Press, 2014).

^{16.} Will Steffen, Paul J. Crutzen, and John R. McNeil, "The Anthropocene: Are Humans Overwhelming the Great Forces of Nature?" *Ambio* 36.8 (2007): 614–621.

^{17.} Eileen Crist, "On the Poverty of our Nomenclature," in *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*, edited by J. Moore (Oakland, CA: The PM Press, 2016), 17.

^{18.} Speciesism expresses a view that the world, including the totality of nonhuman animals, exists for us. Rights, morality, and community are goods that humans alone enjoy, and we are justified in instrumentalizing any and all of life for human well-being.

The discourse, especially in its popular incarnations, expresses the fantasy that whether and how we "fix" this is purely a matter of human will. There is little humility about what we might be able to achieve, little concern for what the Anthropocene implies for nonhuman animals, and little critical reflection on the fact that to "fix" the world is only to secure *our* survival.¹⁹ "Nothing about it—much less the name—offers an alternative to the civilizational revamping of Earth as a base of human operations and functional stage for history's uninterrupted performance."²⁰

Crist argues that the name "Anthropocene" is continuous with the enterprise of human expansionism, falsely and dangerously representing human supremacy as an incontestable and uncontested historical fact. Among the many problems with the narrative of a progressive and ultimately tragic human imperialism is the failure to describe how human takeover is "an unexamined choice" that can, according to Crist, be replaced (or at least resisted) by enlightened ecocentric aspiration.²¹ Although Crist points several times to the disregard for intrahuman differentiation, criticizing the anointing of "a homogenized protagonist," her primary ambition is to chasten the fantasy of human supremacy. She thereby highlights the continuity between Anthropocene discourse and a long history of speciesist disregard for nonhuman life (a category, we might add, that also subsumed most humans). For Crist, the Anthropocene expresses a philosophical anthropology of human supremacy that must be comprehensively overturned. The problem is not only that ecological devastation is the consequence of some humans but that those humans justify their activity with a pernicious and speciesist conception of human progress and supremacy. "When all is said and done, it is with an entire anthropology that we are at war. With the very idea of man."22

If most radical critics share a suspicion of a humanist anthropology that treats Man as the agent of climate change and ecological destruction, they do not necessarily agree about which men are the problem. Andreas Malm and Alf Hornborg, accordingly, insist that the problem is not and has never been humankind as an undifferentiated whole. Neither is the problem, as deep ecologists might argue, anthropocentrism or species supremacy as a corrupt psycho-spiritual orientation toward nonhuman nature. The problem is the

^{19.} See, for example, Gaia Vince, *Adventures in the Anthropocene: A Journey to the Heart of the Planet We Made* (London: Chatto and Windus, 2014).

^{20.} Crist, "On the Poverty of our Nomenclature," 24.

^{21.} Crist, "On the Poverty of our Nomenclature," 25.

^{22.} This is Crist's wonderful epigraph borrowed from The Invisible Committee, *The Coming Insurrection* (MIT Press, 2007).

devastating effects of the fossil fuel economy and the culture and power that it involves. They make the simple but profound point that "the origins of anthropogenic climate change were predicated on highly inequitable global processes from the start."²³ Responsibility for climate devastation lies, they insist, with a statistically very small slice of humanity.

A tiny minority even in Britain, this class of people comprised an infinitesimal fraction of the population of *Homo sapiens* in the early nineteenth century. Indeed, a clique of white British men literally pointed steam-power as a weapon—on sea and land, boats and rails—against the best part of human-kind, from the Niger delta to the Yangzi delta, the Levant to Latin America.²⁴

Malm and Hornborg call attention especially to talism's essential role in precipitating the conditions of the Anthropocene, and do not shrink from finger-pointing rhetoric. They call attention to how a tiny "clique" produced "the great acceleration" of carbon emissions, ocean acidification, and deforestation, among other drivers of climate change. Certainly, it is a premise of Marxism that world capitalism is not accidentally but essentially predicated on the power of the few over the many. This means that the "affluence of high-tech modernity cannot possibly be universalized—become an asset of the species—because it is predicated on a global division of labour that is geared precisely to abysmal price and wage differences between populations."²⁵ But does it follow that criticism is, first of all, a matter of who is to blame? Is the task to identify the "clique" of weapon-pointing villains? Did the *worst* part of humanity attack "the best part"?

Malm and Hornborg object to the Anthropocene discourse because it treats climate change as a natural inevitability rather than a "sociogenic" reality.²⁶ They advocate a more precise causal understanding in the development of the fossil economy both for the sake of accuracy and to promote its dismantling. Rather than describing our history of ecological devastation as a lamentable effect of human nature, it ought to be grasped as a contestable—and, historically, vigorously contested—imposition of the ruling class. I am not in a position, as a philosopher, to quarrel with their descriptive claims. I also endorse the conclusion that fighting climate change requires strenuous anti-capitalist struggle. Nevertheless, in advocating a more precise causal history that preserves the

^{23.} Malm and Hornborg, "The Geology of Mankind," 63.

^{24.} Malm and Hornborg, "The Geology of Mankind," 64.

^{25.} Malm and Hornborg, "The Geology of Mankind," 64.

^{26.} Malm and Hornborg, "The Geology of Mankind," 66. They appear to take credit for the neologism of "sociogenic," but I associate "sociogeny" with Frantz Fanon. See *Black Skin*, *White Masks*.

tools of social science, their case reads more like a prosecutor's brief. It exposes and vilifies the "clique of white British men." It insists that significant portions of the population ought to be excluded in "allocations of responsibility."²⁷

Gilbert Caluya, from a post-colonial perspective, also recoils from the declaration of the arrival of the Anthropocene.

I am suspicious when just as the category of the human is reluctantly opening to incorporate non-normative genders, sexualities, and racialized (and less successfully differently-abled) people, the human is once again returned to a universal category under the rubric of climate change, global warming, and/ or the Anthropocene.²⁸

Like Crist, Malm, and Hornborg, Cauya sees the new legitimacy accorded to discussion of humanity as a whole to be a loss for radical political thought. Indeed, as soon as the discourse of Enlightenment humanity has been chastened as a provincial concept, exposed as a tool of domination, and forced to acknowledge its failure to secure its promise of universal freedom, *Anthropos* appears as the agent of an even grander planetary history.

In a similar vein to Malm and Hornborg, Caluya suggests that, if we were to accept the dating of the Anthropocene from the Industrial Revolution, "a fairer and more precise term would be Eurocene, or Anglocene."²⁹ For reasons with which I sympathize, Caluya finds that the language of the Anthropocene is unfair. It distributes responsibility for climate change, mass extinction, ocean acidification, and other grave ecological harms to all humans. Such dramatic planetary changes have not been caused by all humans and neither have all humans benefitted from the technological innovation of the Industrial Revolution. Indeed, Indigenous communities in the Arctic, on small islands, or in Amazonian forests have contributed nothing to climate change or to the mass destruction of biodiversity, yet they are suffering perhaps the gravest losses as a result. Nevertheless, we might ask, what is missed when we grasp the harms of our age as radiating from England and the steaming weapons a few white British men? Do we get a better explanation? Do we get the promise of comprehensive transformation?

I see at least two problems with location of historical responsibility with one nation and one small group within that nation. First, it personalizes and thereby moralizes the critique. Second, it lends itself better to a movement to

^{27.} Malm and Hornborg, "The Geology of Mankind," 65.

^{28.} Caluya, "Fragments for a Post-Colonial Critique," 34.

^{29.} Caluya, "Fragments for a Post-Colonial Critique," 35.

hold some bodies liable rather than to a mass movement to solve our collective problems. I will address each of these briefly.

Malm, Hornborg, and Caluya are all informed by Marxism. Such an approach to making sense of ecological destruction is, to my mind, especially promising. The capitalist imperative for endless growth and accumulation is arguably the greatest obstacle to slowing down climate change and mass extinction. But we ought to preserve in mind Marx's insistence that his theory was not about laying blame upon individual capitalists, who, for him, were far from masters of their actions. For Marx, capitalist exploitation is a product of impersonal forces over which individuals have minimal control.³⁰ As Marx writes,

I do not by any means depict the capitalist and landowner in rosy colors. But individuals are dealt with here only insofar as they are personifications of economic categories, the bearers of particular class-relations and interests. My standpoint, from which the development of the economic formation of society is viewed as a process of natural history, can less than any other make the individual responsible for relations whose creature he remains, socially speaking, however much he may subjectively raise himself above them.³¹

To politicize the history of the Anthropocene from a Marxist perspective, then, does not mean that we find the fraction of the population of evil-doers. Rather, it requires us to identify the system that enables and constrains capitalist relations of exploitation and domination such that they appear like iron-clad laws of nature. Market laws are such that no matter how conscientious and well-intentioned individual capitalists, landlords, or managers are, they cannot see a way to survive without respecting the laws of low-wages, low-prices, and maximum growth, regardless of the costs to human and nonhuman life.³²

While it remains necessary and important to challenge the implication that "Humanity" has ushered in climate change, the conclusion that capitalism bears a great deal of responsibility should not imply that the source of harm is isolated to the actions of an "infinitesimal" fraction of the population. Capitalism would not be the dominant mode of production if it did not recruit the activity of millions of us, as consumers, workers, and entrepreneurs. It is not those men (or their heirs) that we need to change (I personally don't have much hope for them), but the system that made them. If the question is not comprehen-

^{30.} For a compatible but different critique, see Cunha, "The Geology of the Ruling Class?" *The Anthropocene Review* 2.3 (2015): 262–266.

^{31.} Karl Marx, Capital, vol. 1, translated by B. Fowkes (New York: Penguin, 1990), 92.

^{32.} From a somewhat different perspective, see Young's analysis of landlords in *Responsibility for Justice* (Oxford: Oxford University Press, 2011), ch. 2.

sive change but whom to charge for the damages, then such a liability politics makes sense. But if we bankrupt some capitalists and their heirs, new ones will take their place. My claim is not that reparations are unjustified. Indeed, it would be right and good if fossil fuel industries were forced to pay billions to Indigenous communities whose sacred land they have destroyed, or to address the countless other damages to humans and nonhumans wrought by drilling, mining, and deforestation. I am skeptical, however, that radical movements should direct a preponderance of our energy at demanding compensation from the powerful. In other words, the most effective way to fight Goliath may not be to approach him directly, provide evidence of his wrongdoing, and demand justice. Not only will rich nations and the most successful industries in human history do everything in their power to limit their liability, any resources will likely be distributed through top-down networks that preserve the current arrangements of power and radical inequality.³³

The rhetoric of the malicious, powerful minority has long been a feature of radical discourse. Rhetorically, it aims to reveal the current arrangement of power as one that serves the few and harms the many. But it also plays too well into an individualizing and moralizing discourse of responsibility, which diverts from a systemic and capillary understanding of power and domination. It arouses indignation and outrage, but, as Iris Young suggests, it may also de-liver absolution. I have no doubt that there have been and continue to be evil actors who have precipitated grave harm to human and nonhuman life through their business practices, extraction techniques, and labor policies. But, with Young, I fear that a precise location of responsibility in a single class within a single nation undermines rather than encourages the mass solidarity required for comprehensive change.³⁴

In the following section, I will consider two other proposals for reconceiving our geohistorical situation. These proposals also insist that not all humans have precipitated increasing ecological precarity, but they do not concentrate responsibility narrowly on England. It seems to me that a decentered approach has more explanatory value and more political promise. The effects of climate change are widely dispersed and so must the response be.³⁵ The agent is not one, or an infinitesimal, microscopic few, that we might excise like a tumor that

^{33.} Many journalists who are far from radical critics point to the very limited efficacy of the more promising International climate accords. See, for example, Cassidy, "A Skeptical Note on the Paris Climate Deal," *The New Yorker* (14 December, 2015). Accessed online, 22 June 2016. http://www.newyorker.com/news/john-cassidy/skeptical-note-paris-climate-deal.

^{34.} See Young, Responsibility for Justice, ch. 4.

^{35.} Bronwyn Hayward, "Let's Talk About the Weather: Decentering Democratic Debate About Climate Change," *Hypatia* 23.3 (2008): 79.

has not yet metastasized. It is to these broader challenges to the Anthropocene narrative that I now turn.

THINKING THE ORBIS

Other critics have insisted that not all humans are responsible for ecological devastation and precarity but without identifying a narrow range of culprits. Many of these arguments have taken place through challenging the chronology that privileges the Industrial Revolution as the watershed moment in climate history. I do not have the kind of expertise to contribute to arguments about dates, but I see advantages to a story that involves a wider range of actors and causes. Radical political thought favors systemic and structural analyses of formal and informal relationships among groups and institutions, in order to understand how power operates in diffuse and capillary ways. We understand change not to emanate exclusively from the decisions of officials, heads of State, or laws, even if those things have profound material effects on peoples' lives. In a globalized world, we are enabled and constrained by complex transnational networks of power. Of course, there are no capitalism or patriarchy headquarters that we can storm to demand justice. So we need to try to understand the complex, overdetermined constellation of powers threatening human and nonhuman life today.

Jason Moore, in Capitalism and the Web of Life and "The Rise of Cheap Nature," deepens and extends the political history of climate change, mass extinction, and ocean acidification. Like other radical critics, his very first point of intervention is to reject the notion that the agent of ecological devastation is the human species. He holds the capitalist mode of production, a way of organizing human and nonhuman life, responsible for ecological devastation. The problem is not a group of people, but a complex web of relationships, defined by the organization of all life in the service of surplus value, or the accumulation of profit. He advocates what he calls a "world ecological" analysis that situates Europe and capitalism always in relationship to the global pathways of conquest, trade, and exploitation. He advocates renaming our geological epoch "Capitalocene" to foreground the agency of capitalism in the re-shaping of planetary life. Moore's primary object of criticism is the tendency to identify anthropogenic climate change with the Industrial revolution, coal, steam, and the fossil fuel economy. This perspective, in his view, inflates and isolates the role of energy industries and that of England. With different concerns than mine, he rejects the narrative of climate change originating among captains of industry.

In *Capitalism and the Web of Life*, he outlines a history of capitalism from the point of view of "the long sixteenth century" (1450–1640). In contrast to

narratives that radiate outward from the Industrial Revolution, the world-ecological perspective entails more robust roles played by global conquest, various economies of slave labor, the radical landscape transformations involved in plantation agriculture and mining, and the imperialist projects of, especially, the Spanish and the Dutch. The story ceases to be about a few men from one nation involved in energy-intensive industries. It becomes a complex narrative with a wider range of actors. Capitalism, from the world-ecological perspective, is not only the tragic story of English factories, but also of enslavement, genocide, and the re-ordering of the planet's biota. On his account, climate change, mass extinction, and ocean acidification cannot be understood without attention to slavery, genocide, mass habitat and species extinctions, or the putting to work of human and nonhuman nature for capital.³⁶

Moore seeks a radical new ontology that can better appreciate how capitalism is not opposed to nature, but is a way that nature works. Aligned with ecofeminist criticism, he insists throughout that most humans are dominated through being treated as parts of nature, as extractable resources to benefit a version of "human progress" that excludes them. At the same time, he insists that we need more valid ways of grasping how we are involved ineluctably in a web of life that we cannot control or manipulate, as if we were external to it. His world-ecological story, therefore, better appreciates how nonhumans are exploited and annihilated in what is often narrowly understood as "social struggle," as if only humans were involved or affected by the rule of capital.³⁷

Moore thus attacks the human-nature binary, and provides a distinctive historical account of its functioning. He depends on Val Plumwood's ecofeminist critique of Cartesian dualism as the conceptual and practical subordination of the material to the spiritual, the corporeal to the mental,³⁸ to which he adds abundant historical detail and a critique of political economy. Moore argues that Cartesian dualism reflects not only the domination of women and nonhuman nature, but the specifically capitalist organization of the web of life.

That boundary—the Nature/Society divide that the Anthropocene affirms and that many of us now question—was fundamental to the rise of capitalism.

^{36.} For an accessible overview of his position, see Moore, "The Rise of Cheap Nature," in *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*, edited by J. Moore (Oakland, CA: The PM Press, 2016).

^{37.} Justin McBrien goes further than Moore to emphasize the costs to nonhuman life in his cry against what he aptly calls "The Necrocene." See "Accumulating Extinction," in *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*, edited by J. Moore (Oakland, CA: The PM Press, 2016).

^{38.} Val Plumwood, Feminism and the Mastery of Nature (London: Routledge, 1993).

For it allowed nature to become Nature—environments without Humans. But what about the upper case *H*?: Nature was full of humans treated as Nature.³⁹

Indeed, "the realm of Nature—as ontological formation and world praxis—encompassed virtually all people of color, most women, and most people with white skin living in semicolonial regions."⁴⁰

Moore seems to accomplish the difficult task of showing that most humans were not benefitting from the planetary transformations of what he calls the Capitalocene, while also decentering the causal story. His narrative is conceptually and politically radical. He exhorts us to struggle "to forge a different ontology of nature, humanity, and justice" in the service of "emancipation for all life."41 He targets capitalism and Cartesian dualism for transformation, but his narrative does not allow for a narrow conception of liability for ecological precarity. He decenters England and the Industrial Revolution in the causal history and implicates colonialism, conquest, racism, sexism, and speciesism as contributors to ecological devastation. But I wonder whether it is intellectually or politically appropriate to describe the multifarious contributors to our geohistorical situation—including, if I understand his argument, all of organic nature—as "capital." Of course, the rhetorical invocation of capital as a subject is commonplace in Marxism. Capital becomes an agent, an actor and mover that stands in for a complex network of causal relations. Yet, capitalism also becomes a "genius," and, in the words of a critic who closely adheres to Moore's analysis, "the Sixth Extinction personified."42 Even if Moore's story acknowledges "capital and power-and countless other strategic relations," they are crystallized into a single subject, and a single model of explanation.

Feminist political economist(s) J. K. Gibson-Graham warn against treating capitalism as a seamless, omnipotent power, a unitary force of unchallenged domination.⁴³ By treating the capitalist imperative for accumulation as the explanation for all earthly multispecies domination, we undermine the complex account of the multiple centers and forces of geohistory. While capitalism plays an outsized role in driving climate change and mass extinction, I worry that the Capitalocene account underplays, for example, motives other than accumulation in genocide, slavery, and other expression of domination. If we reject the



^{39.} Moore, "The Rise of Cheap Nature," 87.

^{40.} Moore, "The Rise of Cheap Nature," 91.

^{41.} Moore, "The Rise of Cheap Nature," 114.

^{42.} McBrien, "Accumulating Extinction," 116.

^{43.} J. K. Gibson-Graham, *The End of Capitalism (as We Knew It): A Feminist Critique of Political Economy* (Minneapolis, MN: University of Minnesota, 1996).

narrative of Anthropos as the driver of climate change for being simplistic and inaccurate, shouldn't we also be suspicious of capitalism as the single explanation for planetary and interspecies devastation? Even if capitalism becomes much more complex than in the English factory-centered model, might we be served by identifying competing forms of domination and emancipation that co-exist within capitalism? In particular, is capitalism an adequate explanation for social and religious conflict during "the long sixteenth century," or for conquest and European expansion?

According to geographers Lewis and Maslin, contact between Europe and the Americas marks a watershed in the advent of geological change. Like Moore, they challenge the dating of the Anthropocene from the Industrial Revolution and the overwhelming, if not exclusive, attention to fossil fuels among climate scientists. They draw on stratigraphic and other evidence to advocate a focus on events following the "collision between old and new worlds."

The arrival of Europeans in the Caribbean in 1492, and subsequent annexing of the Americas, led to the largest human population replacement in the past 13,000 years, the first global trade networks linking Europe, China, Africa and the Americas, and the resultant mixing of previously separate biotas, known as the Colombian Exchange.⁴⁴

The unfolding of events starting in 1492 precipitated an unfathomable loss of human life. The Indigenous populations of the Americas declined from an estimate as high as 61 million to only 6 million by the mid-seventeenth century. The result was a near end to farming and fire-burning, with a significant impact on plant species and carbon levels. The collision of worlds, Lewis and Maslin claim, is geologically significant by virtue of both the dramatic decline in human population and the precipitation of an unprecedented homogenization of the earth's biodiversity. They refer to theirs as "the Orbis Hypothesis," Latin for "globe," which sees climate change and mass extinction unfolding from the catastrophic collision marked by 1492.⁴⁵

Their proposal, as Dana Luciano observes, effectively recognizes "genocide as a part of the cause of epochal division."⁴⁶ As a narrative about how we got to where we are and where to intervene, the implication is that white supremacy and colonialism are significant explanatory factors in geohistory. The source of



^{44.} Lewis and Maslin, "Defining the Anthropocene," 174.

^{45.} Lewis and Maslin, "Defining the Anthropocene," 175. Though they find the "stratigraphic" marker, or what geologists call "the golden spike," in 1610.

^{46.} Dana Luciano, "The Inhuman Anthropocene," *Los Angeles Review of Books* (22 March 2015). Accessed online 22 June 2016. http://avidly.lareviewofbooks.org/2015/03/22/the-in-human-anthropocene/.

our ecological problems may not be exhaustively described by capitalism, industry, or the national interests of major world powers. It is also the genocidal history of multiple European countries, a history that persists in the massive threats that climate change and resource scarcity pose to the lands of Indigenous peoples. The "Orbis hypothesis" highlights the ongoing importance of Indigenous sovereignty and the planetary implications of human and nonhuman extinction.

Taken together, the Capitalocene proposal and the Orbis hypothesis pose radical challenges to the Anthropocene narrative. They recognize climate change, mass extinction, and a whole constellation of planetary changes as anthropogenic without extinguishing the radical differences in power among humankind. They likewise enable us to grasp the sources of devastation as systematic, as a complex interaction among various forces, with diverse origins and trajectories. Thinking and acting in the face of genuinely global, planetary problems, with deep historical, biological, and chemical roots, is a task for which we do not yet have the concepts and tools. There is a temptation, as a result, to over-simplify the narrative.⁴⁷ Radical critics rightly object to the simplicity of the Anthropocene narrative for treating humanity as a natural kind, a single actor, whose members bear equal causal and moral responsibility. Yet, radical critics are also tempted to unify the narrative, to identify their preferred villains, to isolate a single system or constellation of causes. Certainly we have to pick our battles, target problems to address, and find language that generates solidarity and hope. This will always involve contestable exercises in naming and narrative. My goal is only to warn against the dangers involved in narrowly isolating culpable agents or reducing all forms of planetary injustice to a single process (capitalism). We ought to avoid both reductivism and moralization.

Why should we be concerned with moralization? Isn't it the case that the project of naming our geological epoch has profound moral implications? The project of radical critique involves marking differences in power, profound suspicion towards invocations of universal "man," and wariness with respect to an uncritical idiom of nature.⁴⁸ These are also traditions wary of reductionism and vilification. Pointing to a tiny sliver of humanity (and its heirs), a particular nation (or narrow set of them), or a narrow set of industries isolates moral responsibility, but it also constrains causal analysis. Isolating culpability is necessary for a liability analysis aimed at extracting reparations, but it may

^{47.} Any narrative, of course, will involve simplification. It is impossible to tell a story, especially one that takes place over hundreds of years, that features every significant actor.

^{48.} I advocate a critical idiom of nature inspired by Elizabeth Grosz and Benedict de Spinoza in my book, *Spinoza and the Politics of Renaturalization* (Chicago: University of Chicago Press, 2011).

detract from a systemic analysis targeting radical transformation.⁴⁹ While I do not doubt that there are bad guys who deserve to pay, I hope we want more than just compensation (and I do not deny it would be just). I hope we also want a collective movement to live differently. The task for radical critics in a time of ecological crisis, I suggest in this essay, is indeed to mark decisive differences in power, but in order to promote a broad-based solidarity movement toward radical change. In excess of the intentions of radical critics of the Anthropocene, the moralistic moments of their critiques-precisely because they resound so strongly and movingly among students, for example-lend those critiques to juridical reasoning whose logic supports appeals to "the one percent," to dirty energy, or to rich nations to do the right thing. Radical criticism reads history as a struggle between powers and counter-powers. Among other critical lenses, the radical critic may emphasize ecological precarity as an outcome of class struggle, bloody campaigns of Empire, impositions of brutal institutions of slavery and oppression, and multifarious modes of domination of women, gender non-conforming people, and nonhuman animals. These are complex structural analyses that ought not lend themselves easily to a narrative of a few poisoned Anthropoi. Likewise, radical criticism is premised on the appreciation that our moral claims will not induce the powerful to act against what they perceive to be their own interests. Let us be wary of how the retort "not all humans" can be reduced to an isolated accusation against perpetrators of evil rather than a comprehensive call to fight against the ongoing annihilation of our interspecies commons.

^{49.} Iris Young offers a compelling criticism of the "liability model of justice" in *Responsibility for Justice*, which has influenced my account here.