Confronting the Popular Anthropocene: Toward an Ecology of Hope

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It's been shorts-and-T-shirt weather on Antarctica lately. Well, almost. This past spring, the World Meteorological Organization announced that temperatures on the polar continent reached 63.5°F on March 24, 2015. Barely two months later, we learned that Antarctica's massive Larsen C ice shelf was about to calve after a 110-mile crack advanced another 11 miles—in just six days. By the time this essay is published, the Southern Ocean will be home to a new iceberg the size of Delaware: some 2,000 square miles, 600 feet thick, weighing a trillion tons.¹

Stories of spectacular biospheric change abound in the early 21st century. Ours is an era of epochal planetary transition—dramatic, irreversible, and chaotic. Earth scientists call such eras “state shifts.”² That's a dry term for a reasonably terrifying situation. It means that the conditions of life will be fundamentally different within a generation. Sea levels will rise faster than anyone expected; stretches of the Middle East will become uninhabitable; and agriculture will be riskier as it is unmoored from its five-century-old discourse of eschewing the earth for Cheap Food.³ It means that my seven-year-old son will live his adult life—if he is fortunate—in an increasingly unstable and comparatively inhospitable biosphere.

If ever there was a pressing need for revolution, this is it. Capitalism—a dynamic crystallization of capital, power, and nature that has endured for five centuries—is now generalizing what it's always been for some: an intergenerational system of mass murder.

What stories do we need to make sense of this disastrous state of affairs, and to forge a politics of climate justice? One powerful answer is given by the Anthropocene, the most influential environmentalist concept of the past decade. Here I want to set aside the focused geological discussion, in which geologists debate stratigraphic markers. I've called this the Geologic Anthropocene. The markers now settled upon are telling enough.⁴ They amount to a scaring indictment of postwar capitalism. Its signal accomplishments will be reduced in the geological record to a few millimeters of dust, identified by plastics, radioactive isotopes, and chicken bones. Loads of chicken bones.⁵

But it's not stratigraphy that's generated all the buzz; it's something we can call the Popular Anthropocene. It's this Anthropocene that asks—and answers—the most relevant questions of our times: What are the causes of today's planetary crisis? And when do we locate its origins?

These are the right questions. But the Popular Anthropocene limits our thinking to possible answers—and the stories they're embedded in—before we can really get started. By asking us to return to view of environmental problems premised on “humans” against “nature,” this Anthropocene returns us to the thinking that created these crises in the first place. Far from an innocent binary, the binary of “man” and “nature” has been fundamental to colonial rule, environmental change, and genocide ever since Columbus landed on Hispaniola. The idea of Humanity as the agent of environmental crisis—today crystallized in the language of anthropogenic change—has been an indispensable weapon in capitalism's arsenal.

Anthropogenic (made by humans). Here we see an old capitalist trick playing out through environmentalist discourse: take a problem created by the 1 percent, then tell the 99 percent it's their fault. To credit humanity as the cause of climate change is to engage in a special brand of magical thinking. It says, in effect, that the inequalities and violence of race and class and gender are secondary concerns. Nor is it a speculative claim. Environmentalism emerged after 1968 as a politics of nature in which race, class, and gender were indeed secondary—when they were acknowledged at all. Nowhere is this expressed more clearly in Anthropocene discourse than in its deliciously neoliberal phrase “the human enterprise”—a term borrowed from Paul Ehrlich, whose 1968 Population Bomb drips with racial anxiety.

The principal driver of modern environmental change is not anthropogenic, but capitalogenic (made by capital). But that's not so simple as it first appears. Global warming is not propelled by “the economy” as such, although that's clearly implicated. Rather, to say capitalogenic is to indict a system of power, capital, and nature. That system weaves together a peculiar rationality—in science, in power, in economics—that compels endless expansion as an existential condition. In a world teeming with life that is not only finite—but unruly—such a logic is fraught with danger as well as possibility.

The Popular Anthropocene ignores all this. The structure of its thinking—Man versus Nature—compels such ignorance. An alternative is to recognize that the planetary “state shift” identified by earth system scientists requires an intellectual state shift. By privileging the “human enterprise,” we return to habits of thought forged in the long 18th

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century. This isn’t because of fossil fuels, or fossil capital—even if that remains important. Rather, it’s because in this era we see the rise of the liberal subject, of “man” as the agent of improvement, ideologically cleansed of racialized, gendered, and colonial violence. The symbolic and the material are so entwined in the liberal subject that it’s hard to see where one ends and the other begins. Such Lockean dualism marked Nature (in the uppercase) as the terrain of Society’s improvement; untouched except by native peoples incapable of improvement. Here we find a crystallization of power, ideas, and nature no less significant than Manchester’s textile factories. There was no fusion of coal, steam, and cotton without exterminated and removed indigenous peoples, on whose unceded lands enslaved Africans worked, and worked to death. In privileging the human enterprise, the Popular Anthropocene marks the highest stage of dualist thought, and a return to habits of thought that served British imperialists well. The Popular Anthropocene, from this perspective, is peak liberalism.

The responsibility of the radical is to name the system. Naming is fundamental to any political project, and the power to name is the power to channel thought—and to shape emancipatory vistas. That the Anthropocene, at its core, is a fundamentally bourgeois concept should surprise no one. After all, it tells us that behind the current, disastrous state of world affairs is the Anthropos. The Popular Anthropocene is but the latest in a long series of environmental concepts that deny the multiplicity of violence and inequality of capitalism and assert that the devastation created by capital is the responsibility of all humans. The politics of the Anthropocene is in fact an anti-politics, resolutely committed to the erasure of capitalism and the capitalogenesis of planetary crisis.

In this light, the Anthropocene may not be merely peak liberalism, but peak neoliberalism.

Dualism and the Cartesian Revolution, Or, Capitalism as Mode of Thought

From the standpoint of the longue durée, the Popular Anthropocene is also peak dualism. It pushes Green Arithmetic—Nature plus Society—to the breaking point. I’ve often called that dualism Cartesian, after René Descartes’s famous distinction between “thinking things” (brains, societies) and “extended things.”

Of course Descartes’s thinking was more sophisticated than the crude dualism suggests. But the issue is not exegetical; it is, rather, one of the uptake of intellectual systems into the world-historical apparatus of domination. The Cartesian system coevolved with emergent structures of capital and power to install a binary code at the heart of modernity. The centuries after 1492 witnessed not only the birth of a mode of production, but also a mode of thought. Long before the algorithmic revolutions of neoliberal surveillance, the capitalist mode of thought churned out one binary code after another, installing each in the systems of domination and exploitation characteristic of early capitalism: White and Black; Man and Woman; Colonizer and Colonized; Society and Nature. It’s no coincidence that our familiar words Nature, Society, and European all assumed their present-day meanings in the century or so after 1550; an era of brutal colonization in Ireland and the Americas, murderous witch hunts and the violent regulation of female bodies, the first great boom of the African slave trade, the neocolonial subordination of Poland, interminable warfare, the continental-scale reorganization of Andean life and work, rapid deforestation from Brazil to the Baltic, and the vigorous spread of sugar plantations across the Western Hemisphere.

It’s no coincidence that Descartes’s formulation appeared toward the end of this period. If a cosmology of thinking and extending things was Cartesian, its inspiration was certainly Columbian and Cortesian. Capitalism as mode of thought was a mode of conquest. The praxis of Cheap Nature, a spiritual, bodily, and cultural degradation no less than a biophysical one, appears in this light as a patrician marriage of conquest and cognition. In this praxis, some humans (rich, white, male) were “thinking things.” This was the realm of Society. Nature, on the other hand, was full of extended things: women, people of color, Indigenous peoples.

On this point, we can no longer feign ignorance: Descartes’s philosophical abstractions were practical instruments of domination. Cartesian rationality became a theoretical hammer in the hands of empire. Nature and Society (or “Man”) became real abstractions with tremendous material force.

These are just a few reasons why the Anthropocene frame is an intellectual prison house. Modes of thought are tenacious. They are no easier to transcend than the “modes of production” they reflect and shape. My argument for the Capitalocene is precisely to encourage conversation—and the practical political struggle that implies—around a new mode of thought.

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Confronting the Popular Anthropocene
The Geological Anthropocene and the Capitalocene as Geohistorical Unity

The Popular Anthropocene is an intellectual prison house—one whose intellectual lineage reaches into capitalism’s deep history of actual imprisonment, enslavement, and enclosure. If not the Anthropocene, what? In a word, the Capitalocene. That doesn’t mean a return to the primacy of economic motives. If we are to grasp the nettle of the biospheric state shift, we’ll need something more nuanced than economic determinism and Green Arithmetic allow. We’ll need a revolutionary mode of thought capable of informing a politics of justice—for humans, for the biosphere, and for future generations.

As I often say, Capitalocene is an ugly word, an ugly system. Then again, “Anthropocene” isn’t exactly Shakespeare. In its concern for planetary crisis, the Capitalocene foregrounds a certain kinship with the Popular Anthropocene. But the Capitalocene refuses the mode of thought that tells us the world can be understood, and acted upon, through the doubly violent abstractions of Humanity and Nature. The bloodstains on these concepts—and the system of Cheap Nature that produced them—simply cannot be bleached out.

The elements of an alternative mode of thought are now emerging and will require an ongoing movement of intellectual disobedience to authoritarian structures of disciplined knowledge. Eco-socialists have so far affirmed their allegiance to Green Arithmetic. Political ecologists have so far refused the world-historical. Post-structuralists have kept their distance from the political economy of capital accumulation. If the generals are always prepared to fight the last war, radicals are always prepared to organize the previous revolution. This will not suffice in an era of planetary state shifts.

I and others in the world-ecology conversation have argued for a dialectical perspective on humans in the web of life—humans make natures, and the web of life makes us. “Us” in this instance is an ontologically differentiated unity, to be sure. Dialectics is one of the least understood ideas in critical theory. A minimally dialectical program unfolds from two observations. One is the intimate, porous, and interpenetrating relations of the “parts” in the whole. For eco-socialists, this means recognizing how the web of life produces the circuit of capital, even as capital transforms the biosphere. A second is that the parts acquire new properties through the historical process. That’s an abstract way of saying something simple: capitalism is not structurally invariant but dynamic as it develops through the web of life; the web of life is equally dynamic (more so!) and experiences significant changes as it moves through capitalist relations of power and re/production. Like all dialectical processes, that’s an asymmetrical relationship whose terms of dominance and subordination shift over time.10

It’s a relationship characterized by a “double internality”: the biosphere internalizes the contradictions of capitalism as capitalism internalizes the twists and turns of planetary history.11 The Geological Anthropocene produces (and is produced through) the Capitalocene, though never equally through time and space.12 The philosophical perspective powerfully shapes how one sees the knotty relations of capitalist and planetary crisis. What the Capitalocene refuses is the reduction of biospheric crisis to economic contradiction. It says that capitalism is best conceptualized as a world-ecology that joins the pursuit of power, the accumulation of capital, and the coproduction of nature as a historical unity. The relations of capitalism and the biosphere are fundamentally interpenetrated.

It is insufficient to conceptualize and theorize these relations; they must be historicized and situated geographically. The Capitalocene, like the Popular Anthropocene, insists on a deep historical perspective. It equally insists that we all become geographers—“earth writers.” For the Capitalocene’s deep history, from its Columbian origins, reveals the space of capitalist transition—and the origins of today’s crisis—as a Pangea reunified by the era’s militarized and racist commodity regimes.

Capitalism will no more survive the ongoing state shift than the Roman Empire or feudal Europe survived far milder climate changes in their respective eras. One of the problems of starting the world-historical clock in 1800 is that you forget a much longer history. If you start thinking of capitalism through the steam engine, you end up with a rosy picture of capitalism’s resilience. Change the technology, change the energy source, save the planet. Shift the optic to capitalism as a system of Cheap Nature with a limitless appetite for work of all natures and a sociopathic disregard for their care, and the picture changes. The steam engine becomes but one crucial instrument of capitalist power, profit, and its capacity for latent and actual mass murder.

It is something of an article of radical faith these days that capitalism can survive the ongoing state shift. That seems unlikely. For starters, today’s climate change, by any measure, overshadows by some margin the two most recent climate transitions: between Roman Warm Period and Dark Age Cold Period (300–500 CE), and between the Medieval Warm Period and the Little Ice Age (1250–1450). Both were relatively mild by today’s standards, and both were implicated in civilizational crises. Today’s climate shift is far greater than the end to an era of favorable climate, such as that enjoyed by the Romans or feudal lords in their respective golden ages. It’s an end to the whole era of favorable climate since the dawn of civilization.

The Capitalocene argument agrees that significant upticks in CO₂ emissions occurred after 1850, and again after 1945. It differs from the Popular Anthropocene in arguing that the sources of planetary crisis are the relations of power and re/production that developed in the centuries after 1492. No doubt these relations are enormously complex. But we can capture something of their essence in what I’ve called the praxis of Cheap Nature.

11 Moore, Capitalism in the Web of Life, 1–30.
Cheap Nature works through a basic principle: reduce all work—including the work of nature as a whole—to its most simplified forms and its most basic qualities. Capitalist agriculture has been dominated by monocultures for this reason. It's this principle that's given us assembly lines with radially simplified work motions, and "flex crops" like maize that can be readily converted into food, fuel, or raw material. This principle shapes two logics, each essential to the other. The first turns on cheapening in a basically Marxist sense, reducing production costs to the bare minimum. In this view, great booms of capitalist development have turned on the extra-economic appropriation of unpaid human and extra-human work. In this sense, frontiers of uncapitalized nature—including human nature—are indispensable to capitalist survival. Our second logic hinges on domination and cheapening: reducing the work and lives of women, people of color, and indigenous peoples to the lowest possible cultural priority. The epochal redefinition of "women's work" as "nonwork" in the early modern centuries stands as a signal moment of such cheapening.

Capitalism as a system of Cheap Nature remade life, land, and sea long before the Industrial Revolution. Indeed, the centuries after Columbus landed on Hispaniola marked an epochal rupture in human-initiated environment-making, unprecedented since the dawn of agriculture and the rise of the first cities. The massive infrastructures of empire and capital that soon emerged, marking the first great wave of planetary urbanization, effectively reunified Pangea for the first time in 180 million years. Suddenly, the work/energy potential of two continents could be appropriated for Europe's capitalist empires. Across the early modern period fields were planted, forests cleared, indigenous peoples exterminated, mines dug, metals smelted, peasants dispossessed—all at scale, scope, and speed that exceeded, often by an order of magnitude, the standards of premodern civilizations.

What the Capitalocene foregrounds is the intimate and dialectical connection between work and nature. The early modern landscape revolution was also a revolution in labor productivity. Indeed, the violence of Cartesians dualism has prevented the elementary synthesis offered by recognizing that advancing labor productivity is, centrally, the increasing material throughput of natures for every hour of labor-time. There is no Global Factory without a Global Farm and Global Mine—and none exist without the Global Household of unpaid care. This complex set of world-historical relations should remind us that capitalist revolutions always join commodification with revolutions in extra-economic appropriation necessary to reestablish the Four Cheaps of food, labor, energy, and raw materials.

Imperialism has been central to life and times of the Four Cheaps. But there's more to it than brute force and vulgar materialism. Empires rule through cultures and epistemologies no less than guns and dollars. Early modernity's "New" imperialism was fundamentally enabled by the Cartesian revolution, which established a new way of seeing and ordering planetary life. (Has it been so different for the new imperialism of the neoliberal era?) One could conquer the globe only if one could imagine it. Early forms of external nature, abstract space, and linear time enabled capitalists and empires to construct global webs of exploitation and appropriation, calculation and credit, property and profit, on an unprecedented scale.

These in turn were fundamental to capitalism's real basis of profit: labor productivity. While many environmentalists and Marxists continue to insist that real capitalism begins only in the nineteenth century, they've missed out on early capitalism's signal accomplishment: its crystallization of force, commerce, and rationality to transform all of planetary life into a potential condition of capital accumulation. In one key sector after another—shipping and shipbuilding, sugar planting, silver and copper mining, textiles, cereal agriculture—labor productivity surged, and surplus value flooded onto the ledgers of merchants, bankers, and industrialists. The problem—then as now—was not too little capital, but too much.

Early capitalism's fundamental problem—in contrast to the political economy of the long fossil boom that has shaped the past two centuries—was not too few customers, but too few inputs. The danger was not overproduction, but underproduction. "Aha!" says the environmentalist. Are we not back to Malthus and the limits to growth? Yes and no—or rather, no and yes. No to Malthus. But yes to Marx's relational concept of underproduction, in which capital's industrial dynamism tends to outstrip capitalism's capacity to supply Cheap energy and raw materials. The greater the industrial dynamism, the greater the possibility that input costs will rise, the greater the profit squeeze. This was precisely the situation in which the early modern accumulators of capital found themselves. This turns inside-out the usual discussion of early capitalism: Not why and how did early capitalism industrialize so little, but why and how did it industrialize so much?

The answer turns on a historically unusual combination of money, trade, and power that took shape in the century after 1450. The three great conquests of the late 15th century—the final subordination of the Canary Islands, the defeat of Granada, and the Columbian invasion—were largely financed by Genoese capitalists. Like any good capitalist, the Genoese were interested in one thing: profit. But the sources of immediate profit were not obvious, except one: slaving. Empires needed cash; capitalists needed profits; planters needed workers. Slaving, and the wider structures of coercive labor control, addressed all these needs. The die was cast.

It is in this sense that something seemingly as innocuous as labor productivity become a world-historical affair. Early capitalism's labor productivity revolution turned, in short, on a Great Frontier opened and sustained through genocide and conquest. Thus worldwide landscape transformation was fundamental to a labor productivity revolution. These were frontiers repopulated through the violence of the Great Domestication: the violent subordination of women in Old and


15 Moore, Capitalism in the Web of Life, 91–165.
New Worlds. The fact that early capitalism relied on global expansion—operationalized through racialized and gendered dualisms—to advance labor productivity reveals early capitalism’s remarkable precocity, not its premodern character. This precocity allowed early capitalism to defy the premodern pattern of boom and bust. There would be no system-wide reversal of commodification after 1450, not during the “crisis” of the 17th century, and not during the great era of worldwide revolt and revolution after 1776. Why? Because early capitalism’s technics—its crystallization of machines and power, knowledge and production—were specifically organized to treat the appropriation of global and household space as the basis for the accumulation of wealth in its modern form: capital as abstract social labor.

The point that merits underlining is the degree to which we can draw rough and ready parallels between the early modern centuries and the 21st century. Like early capitalism, we appear to be entering an era when underproduction crises will decisively shape capital accumulation. Runaway climate change not only spells disaster for humans and the rest of life on this planet; it also signals a dramatic reversal of the fundamental enabling condition of capitalist development: the capacity to cheapen natures of all kinds and to advance labor productivity by absorbing new frontiers. Never mind the end of terrestrial and aquatic frontiers, mightily important in their own right. The enclosure of the atmosphere as a dumping ground for greenhouse gas emissions is already undermining agriculture’s biological productivity, suppressing at once yield growth, nutritional content, and labor productivity. The early modern experience tells us that one tool above all is deployed in moments of underproduction crisis: force. And it’s here that we find a profound disjuncture with the earlier history: in a world where capital has nowhere to run and precious few frontiers to enclose, and where indigenous, food, and climate justice movements have proliferated, capital’s ability to rule by force is more compromised than ever.

Ecologies of Hope

What stories do we need to find our way through the planetary state shift? It seems to me that such stories will need as touchstones the care, compassion, and connection that is so deeply lacking in today’s world. The reflections I’ve offered, though framed as an argument for an intellectual state shift, must reach beyond the intellectual—another category violently reshaped by the Cartesian revolution. How do we act and think and love and organize our way through this state shift? Central to world-ecology has been the argument that we need to think, work and nature in new ways—especially through an ethic of care, for humans, for the web of life, and for the multispecies interdependencies that make the good life possible. That means putting nature at the center of thinking about work; putting work at the center of our thinking about nature; and setting aside the presumption that human organization of any kind (from family farms to transnational corporations) can be adequately understood abstracted from the web of life. From these intellectual—but always more than intellectual—ruptures, we may find ways toward to converse and cultivate and care for new ecologies of hope and justice in the 21st century.

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