

Our Capitalogenic World

Climate Crises, Class Politics & the Civilizing Project

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We all know that the news is not so great on Planet Earth. There's no question that the conditions of life will be fundamentally different in the centuries to come. And while there is much that we can do to navigate this transition – earth system scientists call it a “state shift” – there will be no return to the unusual climate stability of the past 12,000 years. Life on Earth is now definitively exiting the Holocene.²

How we imagine this state shift, and how we imagine what comes next, is crucial. So too is how we imagine what *has* occurred. The political imagination and the world-historical imagination form an uncomfortable unity. Among the imperial bourgeoisie's decisive ideological victories in recent decades has been the erasure of world history from the radical imagination. Today's radical climate studies literature is characterized by a shallow historical vision.³ Meanwhile, few climate historians have had a taste for the history of capitalism.⁴ This thorny and uneven relationship between bourgeois ideology and historical method in the neoliberal era has led to serious blind spots in the radical assessment of the climate crisis, its class and imperial basis, and the revolutionary praxis necessary to confront and transcend it in a just, democratic, and egalitarian fashion.

ANTHROPOGENESIS, NEOLIBERALISM & THE 'END OF HISTORY'

The climate crisis is *anthropogenic*. Literally, “made by humans.” We're told this every time we read or watch or hear climate news. We hear it almost every time we hear a scholar speak on climate change, or when we read a book or article on the climate crisis. The “anthropogenic” party line finds few dissidents, regardless of academic discipline or political sympathy. This is the ideological project of the Popular Anthropocene – distinct from, and yet enabled by, key players in the geological and earth-system sciences.⁵ Saying the climate crisis is “human-caused” is not just a language problem, but a mode of reasoning implicated in the climate crisis itself. Both are rooted in a dark history.

This legacy is the long and violent history of Civilizing Projects. If a certain kind of ethnocentrism has accompanied every great – and not-so-great – civilization, capitalism raised this to an epochal art form. It did not, as some have supposed, spring forth from a mystical “European-ness” waiting to be

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² A.D. Barnosky, et al., “Approaching a State Shift in Earth's Biosphere,” *Nature* 486 (7401, 2012), 52-58; S.L. Lewis and M.A. Maslin, *The Human Planet* (London: Pelican, 2018).

³ See, e.g., J. Wainwright & G. Mann. *Climate Leviathan* (London: Verso, 2018).

⁴ See, e.g., D. Degroot, *The Frigid Golden Age* (Cambridge: Cambridge Univ. Press, 2018).

⁵ J.W. Moore, “Confronting the Popular Anthropocene,” *New Geographies* 9(2017), 186-191. In what follows, I consider the Popular Anthropocene as an important academic cultural formation whose essential framing of the climate crisis flows from Man against Nature. This is not to deny the contributions of scholars who mobilize this framing, only to note their complicity with it. It is, however, to point out that no intellectual production in capitalism is autonomous from its hegemonic political and ideological fields (P. Bourdieu & L. Wacquant, *An Invitation to Reflexive Sociology* (Chicago: University of Chicago Press, 1992; R.C. Lewontin, S. Rose & L.J. Kamin, *Not in Our Genes* (New York: Pantheon, 1984).

liberated from its feudal shackles. Indeed neither “Europe” nor “Western Civilization” as a geohistorical force or geocultural formation existed before the seventeenth and eighteenth centuries respectively.⁶ These were *inventions* of capitalist forces – comprising not only its “material” means of production but also the “means of *mental* production.” The obverse of Civilization was Nature. The uppercase indicates their status as “ruling ideas” – or what I will call *ruling abstractions*. These are fetishes in the classic Marxist sense. More than any other, this binary highlights the connection between the economic, the political, and the geocultural through the “modification... of these natural bases... in the course of history through the action of men.”⁷ The purpose of these ruling abstractions is no mystery: justify and enable the profit-driven conquest, appropriation, and exploitation of humans and the rest of nature so as to sustain the endless accumulation of capital. From the origins of capitalism, these ruling abstractions redefined the lives and labors of the vast majority of humans as non-work, on the specific basis of their alleged “savagery.” *This* is the violence of the Civilizing Project and its antonym, Nature.

We might think of this binary as the animating principle of capitalism’s mode of thought. For everyone who wants to say that capitalism is an “economic system” – rather than class society – it’s worth remembering that the rich and power don’t rule by guns and wealth alone. They require ideologies, and these have contributed mightily to the climate crisis. Civilizing Projects, like all ideologies, do not have “lives of their own,” as reified incantations of “the West” or “settler colonialism” suggest.⁸ They are, rather, specific class projects tightly bound to capitalism’s incentive structure. From the beginning, the emergent imperial bourgeoisies “over-represented” themselves as Human, and expelled everyone else.⁹ Their enduring ideological claims of Christianizing, Civilizing, or Developmentalist virtue rest on the essential premise that most humans are not really or not fully Human, but “savage.” Remaking a biological claim about the human species into a historical argument of causation – through which the “human enterprise” becomes a collective actor – is not innocent.¹⁰ It’s an ideological sleight-of-hand with deep roots in bourgeois naturalism: a procedure that biologizes, and seeks to justify, inequality between humans.

Human-caused. To say climate change is not anthropogenic but *capitalogenic* (“made by capital”) is a sin – against Good Science. The uppercase is again deliberate, because Good Science is not about truth but about power and profit. Long before Habermas spoke of the “scientization of politics,” Good Science served empires and capitalists in their efforts to turn webs of life into profit-making opportunities, and perhaps above all, to discredit anyone who stood in their way.¹¹ To accept Good Science is to accept that there really is no alternative.

Radicals sneered when Fukuyama announced the “end of history” in the closing years of the Cold War.¹² But most on the academic left – especially in the rich countries – were already joining Fukuyama. The poststructuralist moment came to celebrate Marx and Engels’ aphorism – “all that is solid melts into air” – forgetting their dialectical insistence on historically-durable structures of power,

⁶ T.C. Patterson, *Inventing Western Civilization* (New York: Monthly Review Press, 1997).

⁷ K. Marx & F. Engels, *The German Ideology* (New York: International Publishers, 1971), 42, order of quotation slightly altered from the original.

⁸ J.W. Moore, “Anthropocene, Capitalocene & the Flight from World History,” *Nordia* 51(2, 2022), 123-146; B.J. Fields, “Slavery, Race and Ideology in the United States of America,” *New Left Review* I/181(1990), 95-118.

⁹ S. Wynter, “Unsettling the Coloniality of Being/Power/Truth/Freedom.” *CR: The New Centennial Review* 3(3, 2003), 257-337; J.W. Moore, “Power, Profit and Prometheanism, Part I: Method, Ideology and the Violence of the Civilizing Project,” *Journal of World-Systems Research* 21(2, 2022), 1-12

¹⁰ W. Steffen, J. Grinevald, P. Crutzen & J. McNeill, “The Anthropocene: Conceptual and Historical Perspective,” *Philosophical Transactions of the Royal Society A* (369, 2011), 842-867.

¹¹ J. Habermas, *Toward a Rational Society* (Cambridge, UK: Polity, 1987), 61-80; J.W. Moore, “The Opiates of the Environmentalists?” *Abstrakt* (Nov., 2021), (<https://www.polenekoloji.org/>).

¹² F. Fukuyama, “The end of history?” *National Interest* 16(1989), 3-18.

profit and life.¹³ *History* became a footnote, or worse: it was decomposed into highly stylized, and misleading narratives. In the English vernacular, these are *potted histories*: superficial storybook narratives, of the sort one likely encountered in high school. These storybooks are built to manufacture consent, to inculcate an acceptance of the political order as free, democratic, or otherwise virtuous. Such potted arguments are instruments of class rule. And so it was that this flight from history was accompanied, and indeed enabled, by the neoliberal academy's "retreat from class."¹⁴ The flight from the world history and the retreat from class were two sides of the same ideological movement.

It was a dramatic about-face. Across the "long" 1970s, the cutting edge of revolutionary theory found its animating impulse in an unprecedented efflorescence of historical materialism. Emboldened and inspired by socialist and national liberation movements, radical scholars drank deeply at the well of world history. From the fall of Rome to the rise of capitalism to the twentieth century's great socialist revolutions, Marxists recuperated the long history of class society, capitalism's origins, and its globalizing contradictions of class struggle.¹⁵ They did so from multiple vantage points, and from divergent Marxist traditions. But in all instances, historical investigation and the revolutionary critique of contemporary capitalism were tightly bound.

All that was pushed aside by the neoliberal revolution. In the universities, that turn took many forms, and the flight from world history was pivotal to virtually all of them. Many leftwing scholars decided that, in the era of neoliberal triumph, capitalism didn't really exist after all; it was just a figment of the imagination shared by dogmatic Marxists and neoliberal ideologues alike.¹⁶ Even when "capitalism" was rehabilitated through anti-globalization struggles at the turn of the century, it returned primarily in a Polanyian incarnation.¹⁷ Here was a concept of historical capitalism stripped of a Marxist theory of exploitation – so much so that today, the radical vernacular insists upon "decolonization" without so much as a whisper of class exploitation.¹⁸

No matter that the history of capitalism yields an absolutely uncontroversial insight – one essential to our interpretation of the climate crisis. Namely this: imperialism is the bourgeoisie's preferred mode of waging the class struggle. Scholars are not supposed to use such a language in polite company. It's *political* and therefore un-Scientific. But I can find no better conceptualization of capitalism's "real movement... in its world-historical existence" – one that grasps its "double relationship: one the one hand as natural, on the other as a social relationship."¹⁹ This dialectical and historical relation is the class struggle in the web of life: a *political* struggle over the conditions of a "good business environment" that facilitate the merciless appropriation and exploitation of life and work, human and extra-human, paid and unpaid.²⁰

¹³ K. Marx and F. Engels (2002). *The Manifesto of the Communist Party*, in G.S. Jones, ed., *The Communist Manifesto* (New York: Penguin), 218-233, quotation: 223; e.g. B. Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard Univ. Press, 1993).

¹⁴ Moore, "Anthropocene, Capitalocene & the Flight from World History"; E.M. Wood, *The Retreat from Class* (London: Verso, 1985).

¹⁵ P. Anderson, *Passages from Antiquity to Feudalism* (London: New Left Books, 1974); I. Wallerstein, *The Modern World-System I* (New York: Academic Press, 1974); T. Skocpol, *States and Social Revolutions* (Cambridge: Cambridge Univ. Press, 1979).

¹⁶ D. Harvey, *The Condition of Postmodernity* (Oxford: Blackwell, 1989).

¹⁷ K. Polanyi, *The Great Transformation* (Boston: Beacon, 1957). Polanyi "expressed the point concisely by contrasting Marx's account of the role of economy in society, 'an exploitation theorem – class war', with his own, 'a market theorem – no class war,'" G. Dale, *Karl Polanyi: The Limits of the Market* (Cambridge, UK: Polity, 2010), 132.

¹⁸ B. Selwyn & S. Miyamura, "Class Struggle or Embedded Markets?" *New Political Economy* 19(5, 2014), 639-661; Moore, "Power, Profit and Prometheanism."

¹⁹ Marx & Engels, *The German Ideology*, 50.

²⁰ J.W. Moore, *Capitalism in the Web of Life* (London: Verso, 2015).

TRANSITION DEBATES IN THE WEB OF LIFE

Class relations, which include climate history as Marx and Engels emphasize, are unthinkable abstracted from world history.²¹ To be clear, world history is not a restatement of past events and alleged prime movers, like population or industrialization or colonialism. World history is a mode of interpretation that foregrounds the explanation of tipping points, transitions, crises and great civilizational expansions in their historical-geographical specificity. Are the origins of climate crisis found in England around 1800? Are they located in a wider web of class and imperial relations across the Atlantic world after 1492?

These are the kinds of questions posed by a world-historical materialism in the web of life.²² They are also, in part, the questions posed by the Anthropocene, the “Age of Man.”²³ But where the world-ecology conversation *opens* these questions for wider scholarly and political dialogue, the Anthropocene – the *Popular Anthropocene*, to differentiate it from strictly geological debates – silences that debate.

In the 1970s, world-historical discussions like this became known as the Transition Debate.²⁴ For any world-historical transition, such Transition Debates are unavoidable – none more so than in the ongoing demise of Holocene climate stability. The Popular Anthropocene, in this light, wants to eat its cake and have it too. It takes refuge in geological periodization whilst engaging in a promiscuous typological exercise masquerading as world history. Witness the -cene mania of the past decade, much of it with little concern for the deeper conceptual and historical work so urgently needed.²⁵ *But*, to paraphrase a French expression about political life: one can ignore capitalism’s world history, but you can be certain it will not ignore you.

The Transition Debate is shorthand for a long-running postwar debate over the transition to capitalism.²⁶ As the Soviet and Chinese defeat of fascist empires was followed by Afro-Asian decolonization, new questions about socialist transition and capitalist crisis appeared on the world stage. Radical intellectuals began to take seriously the origins of capitalism. The spirit of the Debate was basically this: one’s assessment of the historical-geographical origins of a crisis, and one’s assessment of the contemporary configuration of capitalist power and profit, are dialectically joined.²⁷ Thus: a transnational account of the capitalist origins premised on imperialism yielded different political insights than a national account of capitalist origins premised on property relations.²⁸

The Popular Anthropocene has evaded such questions in favor of potted histories that pit “Man” against “Nature.” That quasi-eternal conflict is mediated by population, technology, and sometimes, great power conflict.²⁹ But these are fragments – not evolving and mutually-formative moments of an evolving dialectical whole. Far from intellectual accidents, such fragmentation flows directly from

²¹ Marx & F. Engels, *The German Ideology*, 42.

²² Marx & F. Engels, *The German Ideology*; J.W. Moore, “[How to Read Capitalism in the Web of Life](#),” *Journal of World-Systems Research* 21(1, 2022), 153-168; idem, *Capitalism in the Web of Life*.

²³ The Anthropocene literature is vast. See P.J. Crutzen & E.F. Stoermer, “The Anthropocene,” *IGBP Newsletter* 41(2000), 17-8. For a critical assessment, J.W. Moore, ed., *Anthropocene or Capitalocene?* (Oakland, CA: PM Press, 2016); Maslin & Lewis, *Human Planet*. An important exception to the ahistorical tendency is N. Klein, *This Changes Everything* (New York: Simon & Schuster, 2014).

²⁴ Moore, “Confronting the Popular Anthropocene.”

²⁵ F. Chwalczyk, “Around the Anthropocene in Eighty Names,” *Sustainability* 12(11, 2020), 44-58

²⁶ R.H. Hilton, ed., *The Transition from Feudalism to Capitalism* (London: New Left Books, 1976).

²⁷ J.W. Moore, “[Empire, Class & The Origins Of Planetary Crisis: The Transition Debate in the Web of Life](#),” *Esboços* 28(2021), 740-763.

²⁸ I. Wallerstein, *The Modern World-System I* (New York: Academic Press, 1974); R. Brenner, “Agrarian class structure and economic development in pre-industrial Europe,” *Past & Present* 70(1976), 30–75

²⁹ J.R. McNeill & P. Engelke, *The Great Acceleration* (Cambridge, MA: Harvard University Press, 2016).

the philosophical reductionism and Civilizing Projects that initially took shape during the rise of capitalism.³⁰ When it comes to class analysis and the history of capitalism, the Popular Anthropocene – and the wider Environmentalism of the Rich in which it’s embedded – has established an intellectual no-fly zone.³¹

It should, then, come as no surprise that the two leading radical critics of the Popular Anthropocene are historical scholars. Their distinctive renderings of the Capitalocene thesis offer distinctive historical-geographical assessments of the origins of capitalism and the climate crisis. Neither believe the Capitalocene is a geological era. On several decisive points, Andreas Malm and I agree: the climate crisis must be grasped in its historical specificity; the origins of climate crisis are found in geographically-specific class struggles; webs of life are fundamental to any politically useful conception of class politics and capitalist development.³²

There *are* important differences: over capitalism, the class struggle, the generative possibilities of the *oikeios* as a multi-layered and creative pulse of life-making, and – importantly for the present argument – the role of bourgeois ideology and the power of the fetishes of Nature and Society. We can simplify. We might abbreviate the difference as follows: there is an *1830 thesis* (Fossil Capitalism) and a *1492 thesis* (capitalism as world-ecology of power, profit and life). Both arguments are more nuanced than any stylized date allows. For Malm, the class struggles in early nineteenth century English mill towns propelled the bourgeoisie to reconcentrate industrial production, powered by steam engines, in major cities like Manchester. Thus “fossil capital” was born, and became a weapon in the bourgeoisie’s class victory over an increasingly militant industrial proletariat.

For the 1492 thesis, Malm’s fossil capital argument is one important element in a longer story. Here is another important difference, for 1830 thesis *excludes* consideration of the wider historical geographies of class, capital and empire that predate “the” Industrial Revolution. The world-ecology alternative begins from the conjuncture of climate crisis and class revolt in feudalism’s long fourteenth-century crisis. The outcome of those class struggles was a historic defeat for western Europe’s ruling classes.³³ They tried, and failed, to restore the balance of class power in the midst of the “socio-physical conjuncture” of climate, disease, agro-ecological exhaustion, and class revolt.³⁴ Failing at this internalist “climate fix” strategy, feudal ruling strata stumbled upon another: move aggressively into the Atlantic world and conquer the Americas, where the balance of military power ran in their favor.³⁵ Thus began primitive accumulation in its classic sense: a grand dynamic of world class formation through which imperial bourgeoisies could mobilize Cheap Nature, including Cheap Labor, on an unprecedented scale. Within a century of 1492, that movement would subordinate Polish and Irish labor to the same bloody logic.³⁶

³⁰ Lewontin, et al, *Not in Our Genes*; J.W. Moore, “Del gran abaratamiento a la gran implosión,” *Relaciones Internacionales*, 47 (2021), 11-52; R. Patel & J.W. Moore, *A History of the World in Seven Cheap Things* (Berkeley, CA: Univ. of California Press, 2017).

³¹ To borrow a phrase from Matt Taibi, “America’s Intellectual No-Fly Zone,” *Scheerpost* (20 April, 2022), <https://scheerpost.com/2022/04/20/matt-taibbi-americas-intellectual-no-fly-zone/>; P. Dauvergne, *Environmentalism of the Rich* (Cambridge, MA: MIT Press, 2016).

³² A. Malm, *Fossil Capital* (London: Verso, 2016); Moore, *Capitalism in the Web of Life*; idem, “The Capitalocene, Part I,” *Journal of Peasant Studies* 44(3, 2017), 594-630; idem, “The Capitalocene, Part II,” *Journal of Peasant Studies* 45(2), 237-279.

³³ J.W. Moore, “The Crisis of Feudalism: An Environmental History,” *Organization & Environment* 15(3, 2002), 296-317; idem, “Nature & the Transition from Feudalism to Capitalism,” *Review* 26(2, 2003), 97-172; idem, “*The Modern World-System as Environmental History?*” *Theory & Society* 32(3, 2003), 307-377; idem, *Ecology and the Rise of Capitalism*, PhD dissertation (Univ. of California, Berkeley, 2007).

³⁴ Wallerstein, *The Modern World-System*, 35.

³⁵ J.P. Antonacci, “Periodizing the Capitalocene as Polemocene,” *Journal of World-Systems Research* 27(2, 2021), 439-467.

³⁶ M. Rai, M. “Columbus in Ireland,” *Race & Class* 34(4, 1993), 25-34; M. Malowist, *Western Europe, Eastern Europe and World Development 13th-18th Centuries* (Leiden: Brill, 2010)

That logic included the invention of epoch-making fetishes – what I call ruling abstractions – forged by Civilizing Projects. These were initially tethered to Christianity, itself radically reinvented in this era, quickly morphing into mature expressions of European Universalism.³⁷ Out of this tumultuous era of entangled geopolitical, economic, cultural, and biological crisis emerged a specific complex of geohistorical actors: state-machineries, bankers, the Church, conquerors and entrepreneurs. For these strata and institutions, the crisis of feudal accumulation entailed a contracting economic surplus. The move to create a “Great Frontier” of Cheap Nature – centering on the Four Cheaps of labor, food, energy, and raw materials – allowed for the expansion of the surplus, now governed by increasingly competitive *capitalist* relations of power and commerce.³⁸

The result was a new accumulation strategy: Cheap Nature. It was premised on the devaluation of the lives and labors of “women, nature and colonies.”³⁹ Here was an ideological, military and juridical strategy that enabled “vast but weak” imperialist bourgeoisies to appropriate *unpaid work* in a novel and generative way.⁴⁰ To call these arrangements *feudal* is to miss the very foundations of the capitalist world-ecology in unpaid work, which depended upon regimes of Naturalized domination – ordained by so-called “natural law.”⁴¹ These tendencies rapidly crystallized in the world color line and capitalist patriarchy during the seventeenth century – and were central to the era’s epochal labor and landscape revolution.⁴²

The Popular Anthropocene and the 1830 Capitalocene thesis alike have worked hard to deny early capitalism’s extraordinary environment-making revolution.⁴³ The labor and landscape transformations of the centuries between 1450 and 1750 cohered the origins of capitalogenic environmental revolution, creating an ecohistorical rupture as great as any since the dawn of agriculture and the rise of the first cities. Here was the dawn of a specifically capitalist Pangea.

After 1450, the scale, the scope, and the speed of environmental change across the Atlantic world outstripped anything seen in the halcyon days of Europe’s high middle ages. The difference was often an order of magnitude – a tenfold difference, give or take. The *speed* of early modern transformation was distinctive – and it remains crucial to capitalogenic environment-making today. (Capital’s tendency to compress turnover time and enforce recurrent waves of time-space compression is not just social, but socio-ecological.)

³⁷ R.H. Tawney, *Religion & the Rise of Capitalism* (New York: Harcourt, Brace & Company, 1926); I. Wallerstein, *European Universalism* (New York: The New Press, 2006).

³⁸ W.P. Webb, *The Great Frontier* (Austin: Univ. of Texas Press, 1964); Moore, *Capitalism in the Web of Life*; Wallerstein, *The Modern World-System*.

³⁹ M. Mies, *Patriarchy and Accumulation on a World Scale* (London: Zed, 1986), 77.

⁴⁰ F. Braudel, “European Expansion & Capitalism, 1450-1650,” in Contemporary Civilization Staff of Columbia College, Columbia University, eds. *Chapters in Western Civilization* (New York: Columbia Univ. Press, 1961), 245-88, quotation: 260; Moore, *Capitalism in the Web of Life*.

⁴¹ On “feudal” Latin America in relation to the Capitalocene debate, see W. Wolford, “The Plantationocene,” *Annals of the American Association of Geographers* 111(6, 2021), 1622-1639. Contrast with Moore, “The Capitalocene,” Parts I and II; idem, “The Opiates of the Environmentalists?”; idem, “Raumschiffe und Sklavenschiffe: Die kapitalische Weltökologie 1492–2030,” in *Kapitalismus und Nachhaltigkeit*, Sighard Neckel, Philipp Degens, Sarah Lenz, eds (Frankfurt: Campus Verlag, 2022), 21-38.

⁴² S. Federici, *Caliban and the Witch* (Brooklyn: Autonomedia, 2004); F. Bethencourt, *Racisms* (Princeton, NJ: Princeton Univ. Press, 2013).

⁴³ What follows draws upon, *inter alia*, Moore, *Capitalism in the Web of Life*; idem, “Capitalocene,” Part I and II; and “Capitalocene, Part II”; idem, “The Rise of Cheap Nature,” in J.W. Moore, ed., *Anthropocene or Capitalocene?* (Oakland, CA: PM Press, 2016), 78-115; idem, “Madeira, Sugar, & the Conquest of Nature in the ‘First’ Sixteenth Century, Part I,” *Review* 32(4), 345-390; idem, “Madeira, Sugar, & the Conquest of Nature in the ‘First’ Sixteenth Century, Part II,” *Review* 33(1), 1-24; idem, “Nature and the Transition from Feudalism to Capitalism,”; idem, “*The Modern World-System* as Environmental History?” *Theory & Society* 32(3, 2003), 307-377; idem, “Über die Ursprünge unserer ökologischen Krise,” *Prokla* 185(2016), 599-619; Patel & Moore, *Seven Cheap Things*.

What feudal Europe achieved over centuries, early capitalist forces realized in just decades. Here's one illuminating contrast. In Picardy (northeastern France), it took two centuries to clear 12,000 hectares of forest in the twelfth and thirteenth centuries. Four centuries later, in Bahia (northeastern Brazil) at the height of the sugar boom, 12,000 hectares of forests were cleared – in just one year. *That's a 200-fold increase.* Nor was this an isolated occurrence. As slave crews were hacking down the Brazilian Atlantic rainforest to secure new land and cheap fuelwood, there was a similar advance of forest clearance on the distant eastern edge of the Atlantic. In early seventeenth-century Poland, workers and peasants cleared forests at an equally rapid pace, transforming the country's extraordinary sylvan resources into timber, arable land for cash crops, potash for bleaching textiles, and the tar and pitch necessary to make the era's growing commercial fleets seaworthy.

The point of these examples of rapid deforestation is not – or not only – to indict capitalism for laying waste to “the” environment. (The English verb “to lay waste” – to devastate – comes into the language at this time, following the devastation of Ireland after the middle of the sixteenth century.) To be clear, we *should* indict capitalism for its serial devastations of human and extra-human life. But indicting the consequences of a system is different from a critique of the system itself.

The logic of capital accumulation rests upon a peculiar narrowing of what counts as productive.⁴⁴ To be productive is to participate in the money economy. Productive labor is paid; unproductive labor is unpaid, *yet socially necessary*. This is not my view, of course. It's how the *bourgeoisie* defines productive and unproductive labor. It *must* define it in this fashion; otherwise it would have to pay for all the necessary work that it designates as “unproductive.” This would be the end of capitalism, for if the bourgeoisie had to pay – for example – for the unpaid reproductive work of the femitariat, capital accumulation would be impossible.⁴⁵

With these clarifications in mind, capitalism's *labor* productivity is entirely different from the pre-modern logic of surplus accumulation. That logic, for all its diversity, was premised on *land* productivity, which included human work but was relatively indifferent to modest fluctuations in labor productivity. Under feudalism, for instance, what mattered was how much wheat or rye could be harvested and milled, not – as under capitalism – how much wheat or rye could be produced *per average worker-year* (or hour). This meant, all things being equal, a tendency towards agricultural involution, which was in fact the norm under feudalism and otherwise agrarian civilizations. All things being equal, feudal ruling strata encouraged a rising population – in the heartlands and upon new settlement frontiers as in East Elbian Europe – so that more labor could be poured into agrarian production.

With the transition to capitalism, however, that changed. The new value regime, premised on the emergence of regimes of abstract social labor, required a historically novel form of alienation.⁴⁶ Labor productivity as the determinant of surplus value came to dominate. This too assumed diverse forms, but the English yeoman, the Polish serf, the Brazilian planter and slave – all felt its gravitational pull.⁴⁷ *Labor productivity* was redefined narrowly, and therefore hid from economic calculation all those forms of life and labor that provided useful work, *but were culturally and juridically excluded from the cash nexus*. That exclusion is at the heart of the invention and reinvention of the ruling abstractions, Nature and Civilization. *Nature* was therefore not confined to “land” and “land productivity” but to the totality of *unpaid work* necessary to capitalism's law of value. This meant that most *actually* productive labor in capitalism was excluded from capitalist “labor productivity”: above all unpaid work of “women, nature and colonies.” So-called “women's work” was redefined as non-work. Plantation labor –

⁴⁴ The following draws upon, *inter alios*, Moore, *Capitalism in the Web of Life*.

⁴⁵ S. Federici, *Revolution at Point Zero* (Oakland, CA: PM Press, 2012).

⁴⁶ J.W. Moore, “The Value of Everything?” *Review* 37(3-4, 2017), 245-92.

⁴⁷ See esp. Moore, “Amsterdam,” Part II.

slavery – was redefined as a “school for civilization.”⁴⁸ Breaking with the ruling binary allows us to see how every great wave of proletarianization in the web of life depends upon the unpaid work of humans (a femitariat) and the unpaid work of planetary life as a whole (the biotariat).⁴⁹ Marx’s socially-necessary labor-time rests upon socially-necessary unpaid work.

This alienation is not only the real basis of capital accumulation; it requires and sustains the ruling abstractions of Civilization and Nature. Capitalist civilization’s tendency to favor profit-making, saving and investment (capital accumulation), and new geographical conquests entailed a reinvention and abstraction of the web of life. The abstraction, as we are leaning, was a capricious – and capacious – conceptualization of Nature with an uppercase N. This facilitated botanical imperialism and bio-prospecting alongside the modern slave trade’s *anthropo*-prospecting. The reinvention linked closely to the abstraction. Its major bias was instrumental, its overarching priority the deployment of Nature as a praxis of world accumulation and global power.⁵⁰ Of all the geocultural inventions that poured forth in the two centuries after 1492, none was more epochal than Nature, a cultural and institutional machine of power and profit-making. In sum, the capitalogenic deforestations that rolled across the planet after 1550 or so were not just about destruction.⁵¹ They were about putting Nature to work as cheaply as possible.⁵²

By the middle of the eighteenth century, this epochal environment-making revolution was largely exhausted. The genocides and ecocides of the New World enabled silver mining and sugar planting – two of the era’s greatest engines of capital accumulation. In fits and starts, these engines began to sputter between the 1650s and the end of the eighteenth century. Slaves, peasants, and workers resisted; soils were exhausted and eroded; forests were cleared. Early capitalism’s socio-ecological contradictions deepened and resistance to agrarian capitalism, from Russia to Haiti to Peru, intensified. It was the era of “dual revolutions”: the democratic and industrial.⁵³

A lot of romanticism goes along with many Marxist – and Environmentalist – views on the Industrial Revolution. One story says that modern labor relations begin with the steam engine and what Marx calls “large-scale industry.” I find this story difficult to square with my reading of world labor history, which is also a history of capitalism’s ecologies of power, accumulation, and nature. On the one hand, the rationalization of the capitalist labor process didn’t begin in England but on the sugar plantations of the Atlantic world.⁵⁴ If we wanted to find the original factories, we need look no further than the “factories in the field” of early modern sugar plantations. On the other hand, while Marx grasped the essence of the transition – towards the “real” domination of labor by capital in mass production – this transition didn’t occur on an epochal scale until the *end* of the nineteenth century.⁵⁵ This is usually called the “second” industrial revolution with mass production systems in automobile, electrical, and petrochemical industries.⁵⁶ From the vantage point of planetary life, steam engine’s epoch-making contribution hardly lies with textile production on a tiny island in the North Atlantic. Rather, it lies with the revolutionizing of the means of transportation – the transition to steamships and the

⁴⁸ Patel and Moore, *Seven Cheap Things*; Federici, *Caliban and the Witch*, 92.

⁴⁹ J.W. Moore, “[El hombre, la naturaleza y el ambientalismo de los ricos](#),” in *Pensar la ciencia de otro modo*, F.F. Herrera, D. Lew, & N. Caruci, eds. (Caracas: Mincyt, 2022), 55-82; idem, “[Das Planetare Proletariat im Planetaren Inferno](#),” *LJB: Literaturforum im Brecht-Haus* 7(2021), 4-11.

⁵⁰ J.W. Moore, “World Accumulation and Planetary Life, or, Why Capitalism Will Not Survive Until the ‘Last Tree is Cut,’” *IPPR Progressive Review*, 24(3, 2017), 176-204.

⁵¹ M. Williams, *Deforesting the Earth* (Chicago: Univ. of Chicago Press, 2003).

⁵² J.W. Moore, “Putting Nature to Work,” in O. Arndt & C. Wee, eds., *Supramarket* (Gothenburg: Irene Books, 2015), 69-117.

⁵³ E.J. Hobsbawm, *Age of Revolution* (Cleveland: World Publishing Co., 1962).

⁵⁴ S.W. Mintz, *Sweetness and Power* (New York: Penguin, 1985).

⁵⁵ H. Braverman, *Labor and Monopoly Capital* (New York: Monthly Review Press, 1974).

⁵⁶ J.W. Moore, “Remaking Work, Remaking Space,” *Antipode* 34(2, 2002), 176-204.

railroadization of the planet, constituting the decisive geographical infrastructure of capitalism's militarized accumulation strategy.⁵⁷ In this light, British-led industrialization revolutionized – but *did not invent* – the dynamics and strategies of Cheap Nature established after 1492.

This reorients our usual narrative of industrialization, capitalism, and the not-so-anthropogenic drivers of today's climate crisis in a generative direction. It opens fresh questions about the dialectical relations – and actually existing class struggles – of peasants, slaves, sailors against the capitalism's double register of Cheap Nature: its economic violence and its ruthless geocultural domination.⁵⁸ And perhaps most significantly, it connects historically the genesis of the capitalogenic trinity of the climate class divide, climate apartheid, and climate patriarchy as the *driver* of today's planetary crisis, not its environmentally-determined *consequence*.

For both the 1830 and 1492 Capitalocene theses, the interpretive emphasis lays squarely in the realm of world history. When, where, and how do we understand the decisive inflection point, from which capitalogenic climate crisis emerged? How, where, and when do we see subsequent turning points in the history of capitalism and climate? Malm and I agree. These are the decisive questions of the Capitalocene as a new Transition Debate in the web of life. We insist that what matters is the class struggle through which formed new civilizational “rules of reproduction” that compelled and enabled the endless accumulation of capital.⁵⁹

THE ENVIRONMENTALISM OF THE RICH, OR, WHY THE POPULAR ANTHROPOCENE IS PART OF THE PROBLEM

The Popular Anthropocene has studiously avoided these questions.⁶⁰ As we've begun to see, there are *two* Anthropocenes. One is the Geological Anthropocene. This is the scholarly conversation about planetary history, centering on so-called “golden spikes” in the geological record. The other, the Popular Anthropocene, is a conversation over the historical causes of – and the proposed institutional, market, and technical solutions to – our deepening climate crisis. The line between the Popular and Geological Anthropocenes is fuzzy and porous. This is not accidental. Rather, it concerns the ways in which “natural scientists” are licensed by scholarly and media gatekeepers to speak freely about matters of policy and world history. The powers-that-be can sleep easily at night knowing that leading climate scientists will rarely upset the ideological apple cart and identify the capitalist class and *capitalogenic* climate crisis as the core of the problem.

None of this is new. The 1968 birth of the Environmentalism of the Rich was in part a creation of a mass media apparatus desperate to manufacture consent at a moment of profound legitimation crisis.⁶¹ One could scarcely pick up a newspaper or magazine in the year before the first Earth Day (April 22, 1970) without reading of “the” environmental crisis. When Ehrlich published *The Population Bomb*, he was greeted with fawning media coverage – in stark contrast to Rachel Carson's *Silent Spring* six years earlier.⁶² Carson had attacked herbicide and pesticide manufacturers; Ehrlich demonized poor Indians allegedly unable or unwilling to check their birth rates. Carson's science led her audience to identify *corporations* as a political problem; Ehrlich's populationism identified the Third World as the problem.

⁵⁷ D.R. Headrick, *The Tools of Empire* (Oxford: Oxford Univ. Press, 1981).

⁵⁸ For early capitalism, see E.D. Genovese, *From Rebellion to Revolution* (Baton Rouge: Louisiana State Univ. Press, 1981); P. Linebaugh and M. Rediker, *The Many-Headed Hydra* (Boston: Beacon, 2000).

⁵⁹ R.P. Brenner, “The Low Countries in the Transition to Capitalism,” *Journal of Agrarian Change* 1(2, 2001), 169-241, quotation: 174.

⁶⁰ J.W. Moore, “Anthropocenes & the Capitalocene Alternative,” *Azimuth* (5, 2017), 71-80; idem, “The Capitalocene, II.”

⁶¹ Robertson, *The Malthusian Moment*.

⁶² R. Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962).

Just as *The Population Bomb* appeared, Garrett Hardin published “The Tragedy of the Commons.”⁶³ It’s the most influential Environmentalist article ever published. Hardin, a biologist, was also a well-known eugenicist. Much of his worldview was entirely consonant with Malthus’s thinking two centuries earlier. There is a danger, he wrote in 1969, that “poor women” might “outbreed the rich” If “poverty is even in part genetically caused (*as it surely must be*),... class discrimination in the availability of... birth control must have a dysgenic effect.”⁶⁴ Published in *Science*, along with *Nature* the world’s leading scientific journal, the “Tragedy of the Commons” purported to explain the environmental crisis by recourse to an avaricious and anti-social human nature. In the year of 1968 – Wallerstein called it a “world revolution”⁶⁵ – the subtext was clear: the selfish and irrational savages of the Third World must be subdued, their appetite checked by imperial *coercion*, a word that occurs *thirteen* times in a five-page article! For the present argument, it’s important to emphasize an undisputed fact: Hardin knew nothing about actually existing commons. Such commons arrangements are amongst human history’s elemental socio-ecological relations – and even at the time, well-known in the story of England’s early modern enclosure movements. Historical ignorance did not however prevent the editors of *Science* from publishing it, or countless other scholars from reproducing its statements as ontological fact. Here is the violence of Good Science as ideology: it enables the most ideologically-charged premises of human nature to present itself as a “natural law.”

And so it is with leading earth-system scientists today, happy to dispense their wisdom on the geo-historical drivers of the climate crisis: population, technology, urbanization, etc. When figures like Johan Rockström tell us that “bankers and executives” are necessary to solve the climate crisis, virtually everyone in the mass media, and nearly all academics, are happy to give them a pass.⁶⁶ (No matter that Rockström is the Chief Scientist for Conservation International, a billionaire-funded NGO deeply complicit in corporate greenwashing and the financialization of nature.⁶⁷) This reminds us flexible boundary between the Geological and Popular Anthropocenes – and that its flexibility is neither innocent nor accidental. The latter is favored by ruling strata because it does not question the relations of power, re/reproduction, and thought that have created the climate crisis; these relations are abstracted, reduced to technological, technocratic, and market-oriented solutions. Here Popular Anthropocene is revealed as an “anti-politics machine.”⁶⁸ Like most Environmentalism, it converts political questions of inequality and injustice into technical and scientific problems to be “solved” and “managed.”⁶⁹

To appreciate the Popular Anthropocene’s flight from world history, let’s consider one of its iconic representations. This is Felix Müller’s widely circulated figure that accompanies the planetary boundaries argument of Rockström and his colleagues (figure 1).⁷⁰ It makes a powerful point. The boundaries of major earth-system processes are now being crossed. Extremely serious, non-linear, shifts beckon. What’s causing this epochal transgression of planetary boundaries? For Rockström and virtually all earth-system scientists, there’s a simple answer: Humanity. The “human enterprise” – what

⁶³ G. Hardin, “The Tragedy of the Commons,” *Science* 162(1968): 1243-1248.

⁶⁴ Quoted in T.R. Robertson, *The Malthusian Moment* (New Brunswick, NJ: Rutgers Univ. Press, 2012), 154, emphasis added.

⁶⁵ I. Wallerstein, “The Agonies of Liberalism,” *New Left Review* I/204(1994), 3-17.

⁶⁶ J. Watts, “Johan Rockström: ‘We need bankers as well as activists... we have 10 years to cut emissions by half,’” *The Guardian* (29 May, 2021).

⁶⁷ T. Levitt, “Conservation International ‘agreed to greenwash arms company,’” *The Ecologist* (11 May, 2011), <https://theecologist.org/2011/may/11/conservation-international-agreed-greenwash-arms-company>; J. Hari, “The Wrong Kind of Green,” *The Nation* (22 March, 2010).

⁶⁸ J. Ferguson, *The anti-politics machine* (Cambridge: Cambridge Univ. Press, 1990).

⁶⁹ Moore, “Opiates of the Environmentalists?”

⁷⁰ J. Rockström, et al., “Planetary Boundaries,” *Ecology and Society* 14(2, 2009).

a deliciously neoliberal phrase! – is drawing the curtain on the Holocene.⁷¹ If that phrase, *human enterprise*, sounds familiar, it’s for good reason. It comes from the authors of the twentieth-century’s definitive Malthusian screed, *The Population Bomb*.⁷² And just when does this human enterprise start to cause serious trouble for the biosphere? The “logical” and “reasonable” beginning is 1800⁷³ – even though the major uptick in atmospheric carbonization doesn’t appear until later nineteenth century, during the “second” industrial revolution, and the origins of modern fossil fuel extraction go back to the early *sixteenth* century!

Two aspects of Müller’s image stand out. One is the assumption that planetary crisis is the creation of the *Anthropos*: the human enterprise. In this scheme of things, the climate and biodiversity crises have *anthropogenic* causes. The planetary boundaries image does not invoke change over time, but it’s associated with another assumption that does. This is the claim that the origins of planetary crisis are found in the century after 1800, commonly narrated as “the” Industrial Revolution. The formula is simple, comfortable, and therefore tempting: coal plus steam power equals global warming.

The two assumptions – turning on anthropogenic change and the 1800 boundary line – have been pivotal to a half-century of Green Thought.⁷⁴ These contribute mightily to a hegemonic imaginary of planetary crisis as the doing of all members of the human species. And they sustain a historical imagination that presents modernity’s long history of global inequality and violence as secondary to securing “our common future.”⁷⁵

These assumptions and their ideological basis are frequently explained away. Here’s a recent headline in *The Conversation*: “The term ‘Anthropocene’ isn’t perfect – but it shows us the scale of the environmental crisis we’ve caused.”⁷⁶ Replete with references to colonialism and historical transitions, such formulas endorse the imperial-bourgeois vision of planetary crisis. Gone from such accounts is the history of capitalism and its class dynamics. *Colonialism* is – like globalization two decades ago – cleansed of its class character. So too with extractivism, climate apartheid, speciesism and other environmental bads: all generally deployed as academic detergents to wipe our thinking clean from the muck of class analysis.⁷⁷

This Environmentalist language often sounds radical, but in practice amounts to little more than professional-managerial class virtue signaling.⁷⁸ Such class-denialist conceptions of historical process are but a stone’s throw away from the Environmentalism of the Rich and its Malthusian vista, transforming the class dynamics of inequality into anodyne “distributional” questions of rich and power.⁷⁹ (In what follows, I will abbreviate *this* Environmentalism with an emphatically uppercase ‘E.’ The counter-tendency is expressed by working class and anti-imperialist environmentalisms, often short-handed as environmental justice.) Such arguments typically redefine the Capitalocene thesis in economic terms – ignoring that Malm and I, our differences notwithstanding, offer *critiques* of economic reductionism! Simply put, the climate crisis is not merely about distributional consequences; it is about class power in the biosphere.

⁷¹ Steffen, et al, “The Anthropocene: Conceptual and Historical Perspective.”

⁷² P.R. Ehrlich [and A.H. Ehrlich, uncredited], *The Population Bomb* (New York: Ballantine, 1968); P.R. Ehrlich and A.H. Ehrlich, “The Environmental Dimensions of National Security,” in *Global Problems and Common Security*, J. Rotblat & V.I. Goldanskii, eds. (Berlin: Springer, 1989), 180-190.

⁷³ Steffen, et al., op. cit, 842.

⁷⁴ Moore, *Capitalism in the Web of Life*.

⁷⁵ G.H. Brundtland, *Our Common Future* (Oxford: Oxford University Press, 1987).

⁷⁶ P. Sutoris, “The term ‘Anthropocene’ isn’t perfect – but it shows us the scale of the environmental crisis we’ve caused.” *The Conversation* (20 October, 2021).

⁷⁷ Moore, “Power, Profit and Prometheanism”; idem, “Anthropocene, Capitalocene & the Flight from World History.”

⁷⁸ C.M. Liu, *The Virtue Hoarders* (Minneapolis: Univ. of Minnesota Press, 2021).

⁷⁹ J.S. Dryzek & J. Pickering. *The politics of the Anthropocene* (Oxford: Oxford Univ. Press, 2019).

It is extremely dubious to claim that the Popular Anthropocene raises awareness. (So does advertising the latest electric car!) The Environmentalism of the Rich has been telling us that we are living in End Times since 1968.⁸⁰ If there was a high tide of environmental awareness before the present, it was in the early 1970s.⁸¹ The outcome was hardly an ecological revolution. Rather, everywhere in the imperialist countries, Environmentalism readily made its peace with neoliberalism: testimony to the Environmental Imaginary's Janus-faced character.⁸² The crucial question is the *character of the awareness* and its willingness to break with capitalism's business as usual. Figures as diverse as Audre Lorde and Albert Einstein underline the essential idea: The ideas and tools of the ruling class will not solve the problems they've created.

The Environmentalism of the Rich and its Popular Anthropocene shapes popular consciousness in ways that are entirely consonant with a techno-scientific authoritarianism.⁸³ Eco-catastrophism is entirely compatible with Green authoritarianism – a point argued from Environmentalism's origins in 1968, and already in force across the Global South.⁸⁴ *This* Environmentalism imagines the biosphere – and even regional environments – as somehow outside relations of power, re/reproduction, and inequality. It's an imaginary that excises questions of financialization, of homelessness, of precariousness, of hunger, of poverty, of climate apartheid, climate patriarchy and the climate class divide – in short, it presents a political imaginary of planetary crisis that designates questions of democracy as unnecessary.

Consider something like the Sixth Extinction.⁸⁵ This is usually discussed as the “biodiversity crisis.” What's rarely pointed out in these discussions is that the Sixth Extinction isn't anything like the five previous extinctions on Planet Earth. It's not the work of an asteroid. It's not the work of bad technology or inefficient markets or the “imperial mode of living.”⁸⁶ It's the work of capital. It is a *capitalogenic* process – co-produced through modernity's relations of capital, power, and nature. It is not anthropogenic – even if figures like Ehrlich continue to insist that it's all driven by human overpopulation.⁸⁷

Overpopulation. That must be a bitter pill to swallow for descendants of the fifty million Native Americans who died in the aftermath of 1492 – a slaving-induced movement of genocide that contributed to capitalism's first great climate crisis in the “long, cold seventeenth century.”⁸⁸ To underline the point: it was not a disembodied European colonialism that propelled these killing fields; it was an emergent capitalist order hungry for Cheap Labor. The ideology of *Cheapness* was manifest from the start, expressed in the Prometheism of the Civilizing Project and its redefinition of indigenous, Celtic, African, female, Slavic and other populations as “savage.”⁸⁹

The Popular Anthropocene's cosmology is built on a simple opposition: Man versus Nature. The conflict, we are told, can be navigated by Enlightened Civilizers endowed with the scientific expertise and institutional-coercive power to enforce something euphemistically called “earth-system

⁸⁰ J.W. Moore, “Beyond Climate Justice,” in *The Way Out of the Climate Crisis* (Vienna: Walther König Press, in press 2022).

⁸¹ Robertson, *The Malthusian Moment*.

⁸² M. Dowie, *Losing Ground* (Cambridge, MA: MIT Press, 1996).

⁸³ Moore, “Opiates of the Environmentalists?”

⁸⁴ S. Lilley, D. McNally, E. Yuen & James Davis, *Catastrophism* (Oakland, CA: PM Press, 2012); Hardin, “Tragedy of the Commons”; D. Brockington, *Fortress Conservation* (Bloomington: Indiana University Press, 2002).

⁸⁵ A. Dawson, *Extinction* (New York: OR Books, 2016).

⁸⁶ U. Brand & M. Wissen, *The imperial mode of living* (London: Verso, 2021).

⁸⁷ G. Ceballos, et al. “Accelerated modern human-induced species losses,” *Science Advances* 1(5, 2015), e1400253.

⁸⁸ C.M. Cameron, P. Kelton & A.C. Swedlund, eds., *Beyond Germs* (Tucson: University of Arizona Press, 2015); E.L.R. Ladurie & V. Daux, “The climate in Burgundy and elsewhere, from the fourteenth to the twentieth century,” *Interdisciplinary Science Reviews* 33(1, 2008), 10-24; S.L. Lewis & M.A. Maslin, “Defining the Anthropocene,” *Nature* 519 (2015), 171-80.

⁸⁹ C. Robinson, *Black Marxism* (London: Zed, 1983), 186-187.

governance.”⁹⁰ This binary frame is the common sense of planetary crisis today: *Humans* are now threatening planetary breakdown. Such claims might sound innocent enough. They are in fact anything but. For the mainstream discussion of *anthropogenic* climate change short-circuits the conversation that we need if we want to envision a politics of planetary sustainability that is also a politics of planetary justice.

Let’s walk through the three big questions of planetary crisis today. Who and what caused this? When and where did this begin? And how did we get here? This might sound banal, but how we answer these questions largely decides our politics. The Environmentalism of the Rich, as it coalesced after 1968, delivered a straightforward message: “We have met the enemy, and he is us.” The cartoonist Walt Kelly’s iconic 1970 Earth Day poster crystallized that sensibility (see Figure 2). That same year, Richard Nixon sounded a strongly environmentalist theme in his second State of the Union Address: “Restoring nature to its natural state is a cause beyond party and beyond factions. It has become a common cause of all the people of this country.”⁹¹

When I say that the Anthropocene is an anti-politics machine, that’s hardly new – as Nixon’s 1970 speech suggests. Before the Anthropocene, there was Spaceship Earth: old wine, new bottle.⁹² Both speak to a quintessentially modern cosmology of Man vs. Nature, a conflict that can be “realistically” managed with the appropriate technology and rational governance. That cosmology has nourished Environmentalism’s philosophical and historical premises: “we’re all in this together” and “we created the environmental crisis together.”

Like any hegemonic mythology, that cosmology blends truth and illusion. The insistence that we are all connected through webs of life – “On Spaceship Earth... everybody is a member of the crew” – has a kernel of truth.⁹³ But the reality is very different, and no one seriously disputes it. Spaceship Earth has a command structure, and most of us are packed into steerage and following orders.⁹⁴ If a metaphorical Spaceship Earth evoked a fanciful sci-fi space communism, the actual Earth in recent history resembles a Slaveship, not the starship Human Enterprise.⁹⁵

No doubt Environmentalism’s popular appeal owes much to the specifically capitalist forms of alienation that humans experience – from their work, and from their sense of connection to the rest of life. Environmentalism serves up a lot of comforting language about oneness and reconnection and healing. But comforting language without revolutionary strategy in an era of climate crisis is not a good thing. *We should not be comfortable* – but neither should we be terrified. Needed is disconcerting language and unconventional thinking that strikes at the heart of capitalism’s fetishisms: Humanity, Civilization, and Nature above all. The Popular Anthropocene’s claim that the mythical entity, Humanity, is now “overwhelming the great forces of nature” is hardly a value-neutral statement.⁹⁶ Spreading blame for the trajectory of Slaveship Earth is tantamount to blaming slaves and immigrant workers for imperialism.

Saying Humanity has caused planetary crisis is a bit like saying Humanity is responsible for the New World genocide after 1492 – or that Humanity is responsible for the modern slave trade, world wars, or neoliberalism’s Washington Consensus of finance-driven dispossession. Anyone uttering the

⁹⁰ Dryzek & Pickering, *The politics of the Anthropocene*.

⁹¹ R. Nixon, “Annual Message to the Congress on the State of the Union,” 22 January (1970), <https://www.presidency.ucsb.edu/documents/annual-message-the-congress-the-state-the-union-2>.

⁹² R.B. Fuller, *Operating Manual for Spaceship Earth* (Carbondale: Southern Illinois University Press, 1969).

⁹³ M. McLuhan, “At the moment of Sputnik the planet became a global theater in which there are no spectators but only actors,” *Journal of Communication* 24(1, 1974), 48-58

⁹⁴ To paraphrase my co-author Raj Patel in *Seven Cheap Things*.

⁹⁵ J.W. Moore, “Slaveship Earth & the World-Historical Imagination in the Age of Climate Crisis,” *PEWS News* (Summer, 2018): 1-4.

⁹⁶ W. Steffen, P.J. Crutzen & J.R. McNeill, “The Anthropocene” *AMBIO*, 36(8, 2007): 614-621.

phrase “anthropogenic genocide” would be laughed out of the room! Because of course there were highly specific *relations* – of empire, capital, and class – that created these disasters. Calling the planetary crisis anthropogenic is a non-explanation.

But it’s even worse than a failure of interpretation. For Humanity, Civilization, and Nature are not merely words floating in the ether. They are *ruling abstractions*, reinvented since 1492. The geocultural boundary between Humanity and Nature was central to the New World genocides, to the African slave trade, to modern patriarchy that defined the rise of capitalism and its Civilizing Project. Indigenous Peoples, Africans, and women – all were cast out of Civilization and into a very different realm, Nature.⁹⁷ Their lives were rendered expendable, and their labor became cheap, on the grounds that they were not – or not fully, or not yet – Human.

The question of who is – and who is not – Human is therefore at the core of the climate crisis. It’s fundamental to how modern power is structured and legitimated. It’s not merely a question of language – although language *is* important. It’s a question of civilizational praxis in which dominant “material” forces are dialectically bound to “ruling intellectual forces.”⁹⁸ At the core of that praxis is a knowledge factory that frames reality as a series of binary and hierarchical oppositions: Humanity/Nature, Man/Woman, White/Not-White, Europe/America, and so forth.⁹⁹

These ruling intellectual forces are real abstractions that not only *reflect* material relations, but are the necessary symbolic moment *of* these material relations. When I say that the language of Humanity/Nature has been saturated with profound violence, I don’t just mean symbolic violence. I mean the blood and violence of capitalist development, of colonialism, of domination and exploitation. For good reason, then, the policing of the Humanity/Nature line – through violence, markets, and culture – has been a recurrent feature of capitalist development, from Columbus to the present. And this policing – and sometimes the line itself – has been fiercely contested all along. When movements for justice on questions of sexuality, gender, and race self-identify as *civil* or *human* rights struggles, they are registering this world-historical boundary between Civilization and Nature. For this reason, in one way or another, class struggles and boundary struggles are always tightly linked.¹⁰⁰

This is why the language of the Popular Anthropocene is so dangerous. Its premise is a strict divide between Humanity and Nature, a binary code that is at the heart of the modern exercise of power, production, and profit. The Anthropocene – and the Environmentalism of the Rich – embodies the very system of thought that has created planetary crisis. It is a special form of magical thinking to believe that the system of thought, power, and production that created the crisis will solve it.

BY WAY OF CONCLUSION:

ANTHROPOCENE, CAPITALOCENE & THE COMMUNIST HORIZON

The Popular Anthropocene has unintentionally returned the world-historical questions of the Transition Debate – the origins of planetary crisis, but also the transition from capitalism to a civilization more or less democratic, just and sustainable – to the center of political and scholarly conversations. Let us recall the simple, unbreakable connection with which we began: one political imagination of the what’s possible depends on one’s historical assessment of what has happened. The Popular Anthropocene raises question that it cannot answer. It’s not that historians can’t use the Anthropocene to narrate their histories; it’s that the Anthropocene is an ideological construct that emerges out of the most violent and exploitative dimensions *of* those histories.

⁹⁷ G. Hage, *Is Racism an Environmental Threat?* (Cambridge, UK: Polity, 2017).

⁹⁸ Marx & Engels, *The German Ideology*, 64.

⁹⁹ V. Plumwood, *Feminism and the Mastery of Nature* (New York: Routledge, 1993).

¹⁰⁰ Patel & Moore, *Seven Cheap Things*; N. Fraser, “Behind Marx’s Hidden Abode,” *New Left Review* II/86 (2014), 55-72.

The virtue of an older Marxist tradition was to foreground the specificity of capitalism's contradictions in modern class relations and the dynamics of capital accumulation. Environmental history was largely a footnote. Worse still, the Marxist Transition Debate rarely considers the active climate change moment in the rise of capitalism.¹⁰¹ Green Thought, in contrast, emphasized the significance of environmental history alongside the social and economic history – but largely ignored the contradictions of capital and class. At the core of the world-ecology conversation is the argument that these two traditions – and not only these – have assembled the elements of a new synthesis.¹⁰²

To pursue such a synthesis, one has to let go of certain idealized concepts of how capital accumulation works, what class struggle looks like, and even what “environmental change” means. You have to give up your sacred objects – without abandoning enduring insights.¹⁰³

A revolutionary politics of climate justice – one that puts its faith in the world's working classes, human and extra-human, paid and unpaid – must reimagine our questions of power, accumulation, and re/reproduction in and through webs of life. Such a transformation necessarily involves letting go of the colonizers' ontology of the world, the divide between Civilization and Savagery, and the Popular Anthropocene's Man versus Nature model.

The alternative is not an undifferentiated monism, one that robs social life of its historical and geographical specificity. Rather, it's one that takes as its point of departure the mosaic of human history and experience in terms of patterned – but also evolving and punctuated – configurations of life, land, and labor. Any understanding of human social relations that does not begin with connective, and frequently asymmetrical, relations with and within webs of life is fragmentary. This sounds like high theory. In fact, it's anything but. Simply reflect on the most elemental dimensions of social life and social history: the foods we farm and cook; the shelter and built environments we make; the tools and machines we fashion, and the products that come from them; the ways we couple and care for each other. At every point, we are dealing with relations between human and extra-human natures; every “human” relation is always already a socio-ecological relationship. It's physical. It's cultural. It's productive and reproductive. The Cartesian Revolution dichotomized these – in thought and practice. The Marxist Revolution in thought unified them within a “rich totality of many determinations”: an “organic whole” of life and power.¹⁰⁴

Needed is a historical conception of work that goes beyond the wage worker and beyond the Man vs. Nature binary. The majority of work that sustains capitalism is unpaid. That unpaid work is delivered by “women, nature, and colonies” – and justified by ruling binaries.¹⁰⁵ These are functionally necessary to capitalism's law of value. Reinforcing the point, Mies's comrade Claudia von Werlhof extended the argument: Nature is everything for which the bourgeoisie does not want to pay.¹⁰⁶ Those divides of paid and unpaid work, Civilization and Nature, are directly implicated in the capitalogenic trinity: the climate class divide, climate apartheid, and climate patriarchy.¹⁰⁷

I'm not someone who believes that Marx came down from the Mountain with *Das Kapital* etched onto stone tablets. I do think he got something powerfully right when he talked about work, metabolism, and class. Marx is always reminding us that human work is part of nature, never flattened, always distinctive. In the *Grundrisse*, he calls labor a “specifically harnessed natural force”: a point that

¹⁰¹ Moore, “[Empire, Class & The Origins Of Planetary Crisis.](#)”

¹⁰² Moore, *Capitalism in the Web of Life*.

¹⁰³ Moore, “[How to Read Capitalism in the Web of Life.](#)”

¹⁰⁴ K. Marx, *Grundrisse* (New York: Vintage, 1973), 99.

¹⁰⁵ Mies, *Patriarchy and Accumulation*.

¹⁰⁶ von Werlhof, “On the concept of nature and society.”

¹⁰⁷ J.W. Moore, “[El hombre, la naturaleza y el ambientalismo de los ricos.](#)” in *Pensar la ciencia de otro modo*, F.F. Herrera, D. Lew, & N. Caruci, eds. (Caracas: Mincyt, 2022), 55-82; idem, “[Das Planetare Proletariat im Planetaren Inferno.](#)” *LjB: Literaturforum im Brecht-Haus* 7(2021), 4-11; idem, “The Capitalocene & Planetary Justice,” *Maize* 6(2019), 49-54.

speaks directly to how human sociality is co-produced in and through the web of life.¹⁰⁸ In *Capital*, Marx offers a powerful account. In famous passage, opening the chapter on the labor process, Marx argues for a work-centered triple transformation.¹⁰⁹ Through work, humans remake themselves, “internal nature.” They transform the relations between human beings (“social” relations). And they transform extra-human webs of life (“environmental” relations). These form a dialectical unity. If we take Marx seriously, it unravels our conventional understanding of power and re/production, in which “nature” is typically relegated to context or passive matter. Instead, Marx offers a conception of metabolism that is grounded in the *labor process*, which is to say, Marx opens the dialectical imagination to thinking about metabolism as a class struggle.¹¹⁰

Such a dialectical strategy asks us to think about work and the geographies of life in co-productive and world-historical ways. It also asks us to think about how our modes of argument challenge – and sometimes conform to – capitalism as a mode of thought. If Marx’s contribution was to grasp dialectics not as abstract philosophy but an active materialism that joins theory and practice, the intellectual and ideological questions are tightly joined.

Capitalism has thrived because it puts humans and the rest of nature to work on the Cheap. Today, that Cheap Nature logic faces increasingly serious contradictions. Consider, for instance, that climate change has been suppressing the yield of the world’s major cereal crops (rice, wheat, maize, soy) for nearly four decades.¹¹¹ Consider also that the “classic” challengers to capitalist rule in production – workers and peasants – have not gone away, as labor unrest mounts in China and global food justice movements like Via Campesina confront the corporate food regime. Whether or not climate justice movements will succeed, and become a “climate insurgency,” will turn on their capacity to elaborate a new ontological politics that defies and disrupts the capitalism mode of thought and its ideological frames. Such insurgencies will need to name the system. They will need to insist that the agents of capitalogenic climate crisis have names and addresses – and so do their factories, feedlots and financial assets. Such a revolutionary vista will seek to join organically the connections and contradictions of life, work, and land in ways that build upon, and also move beyond, twentieth-century revolutionary projects.¹¹² Only then can we hope to euthanize the Capitalocene and its post-capitalist specter of Green Authoritarianism, and reorient proletariat, femitariat and biotariat towards the communist horizon.¹¹³

¹⁰⁸ Marx, *Grundrisse*, 612.

¹⁰⁹ Marx, *Capital*, 283.

¹¹⁰ J.W. Moore, “Transcending the Metabolic Rift,” *Journal of Peasant Studies* 38(1, 2011), 1-46; idem, “Metabolic Rift or Metabolic Shift?” *Theory & Society* 46(4, 2017), 285-318.

¹¹¹ J.W. Moore, “[Global Capitalism in the Great Implosion](#),” foreword to W.I. Robinson, *Can Global Capitalism Endure?* (Atlanta: Clarity Press, 2022), ix-xxiv; idem, “Del gran abaratamiento a la gran implosión.”

¹¹² J. Brecher, *Against Doom* (Oakland, CA: PM Press, 2017); J.W. Moore, “Cheap Food & Bad Climate,” *Critical Historical Studies* 2(1, 2015), 1-42.

¹¹³ J. Dean, *The Communist Horizon* (London: Verso, 2012); Salvage Collective, *The Tragedy of the Worker* (London: Verso, 2021); Moore, “Opiates of the Environmentalists?”