

# OPIATES OF THE ENVIRONMENTALISTS?

*Anthropocene Illusions, Planetary Management & The Capitalocene Alternative*

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Pick any headline from any week. One message rings clear: Humanity is causing climate change. Here's *The Washington Post*, published just as I am completing this essay: "At least 85 percent of the world's population has been affected by human-induced climate change, new study shows."<sup>2</sup> It is not exceptional. Some version of the phrase "human-induced" – or *anthropogenic* – climate change has appeared countless times since the late 1980s. The journalistic phrasing, we are told, is a straightforward extrapolation of Good Science – and anyone who challenges Good Science is surely irrational.

Effective ideologies blur the lines between empirical realities and political interpretation. *Some* members of the human species are indeed driving planetary life into the planetary inferno. This geological and geohistorical transition is often narrated as the Anthropocene, the Age of Man. Major corporate news platforms – like *The New York Times* and *The Economist* – are very happy with that formula, *Age of Man*. It supports an ideological claim – the idea of Man as a collective actor, the "human enterprise" – with another: Good Science. It's not a new trick. Invoking natural law is ancient sport in capitalism. Malthus did it. The eugenicists did it. Paul Ehrlich and neo-Malthusians did it again after 1968. In every case, it's a means of erasing capitalist webs of power, profit and life behind the planetary crisis. It is a way of short-circuiting the possibility that working classes will grasp the climate crisis as *capital-induced* rather than *human-induced*: as the result of *capitalogenic* rather than anthropogenic forcing.

In the years since my early critiques of the Anthropocene, countless critical voices have made the point that only *some* – not all! – humans are responsible for the climate crisis. Since the eighteenth century, 103 "carbon majors" are responsible for 70 percent of total carbon dioxide emissions.<sup>3</sup> In 2020, the richest one percent are responsible for twice the greenhouse gas emissions of the bottom *half* of world population, some 3.8 *billion* human beings.<sup>4</sup> The Pentagon is the world's largest institutional emitter of greenhouse gases.<sup>5</sup>

All that is hugely important. But we have to go further. Such critiques leave untouched the core of modern ideology: the Promethean domination of Man

over Nature. Every word of that formulation presents us with an “ice cream headache” problem. Painful and sweet, the source is the same: unthinking the imperialist worldview of Man and Nature, and rethinking the history of capitalism as a politically-instituted world-ecology of endless accumulation in the web of life.<sup>6</sup> Perhaps most vexing is the idea that *Man* and *Nature* have little to do with our commonsense understandings of these words, and everything to do with remaking of planetary life under capitalism.

### **Prometheanism, or, the geocultural logic of historical capitalism**

Our story begins in the century or so after 1492.<sup>7</sup> The invasions of the Americas, financed by the era’s leading financiers, inaugurated an environment-making revolution unprecedented in its scale and speed. New frontiers of Cheap Nature, propelled and secured through a new logic of militarized accumulation, were rapidly deforested, refashioned as agro-export platforms, and subsequently transformed into biological wastelands. The condition, as with any class society, for this dramatic rupture – a geobiological watershed in planetary history – was the production of new, mobile and pacified forms of labor. For capitalism, this pivoted on new, coercive relations of work – some it paid, much of it not. This was the dawn of the Capitalocene – a capitalist world-ecology of power, profit and life.<sup>8</sup>

Civilizations are of course far more than modes of production narrowly conceived. They are modes of thought, and they are ideological formations: these are the “means of mental production.”<sup>9</sup> These are crucial to every class society, but capitalism especially. Such ideological formations are fundamental because capitalism’s unique polarization of wealth requires a uniquely materialist mystification; and because capitalism, more than any other class society, requires a uniquely materialist — and uniquely imperialist — science to identify, scour, and study the planet’s potentially profitable natures.<sup>10</sup> The two moments are dialectically joined from the start, and explain something of bourgeois materialism’s revolutionary force in smashing the remnants of feudal ideology and its holistic (if hierarchical) views of humans in the web of life.<sup>11</sup> They also explain how that imperial and bourgeois materialism favored the invention of *Man*, *Nature*, and *Civilization* as guiding threads in a new logic of planetary domination: *Prometheanism*. No major expression of bourgeois domination – most horrifically, modern racism and sexism – would emerge without the naturalistic thinking of Prometheanism. That Prometheanism was, let us be clear, *never* a project of the “human enterprise” – as neo-Malthusians like to say.<sup>12</sup> It was *always* an ideological project of the bourgeoisie’s domination of life in service to profit-seeking and profit-making.

The rise of capitalism was therefore a revolution in the relations and “means of mental production.” Across the “long” sixteenth century (1451-1648), a new worldview took shape, characterized by new intellectual logic of “radical exclusion.”<sup>13</sup> Its worldmaking binary code proceeded by means of an

either/or logic that radically excluded properties from each pole of a binary. In this logic, every characteristic that defined the Civilized was radically separated from the Savage, and the Natural. If that radical alienation sounds to you like the logic of primitive accumulation and its tendencies of class formation, you're on the right track. For the era of primitive accumulation (so-called) was not only a movement of radical exclusion in property relations. It also defined the geocultural order. The latter's epochal inventions were Man and Nature. These were especially conducive to bourgeois rule and the transformation of webs of life into profit-making opportunities.

Across this era, in fits and starts, a new ideological vocabulary took shape around three concepts: *Man*, *Nature*, and *Civilization*. All three are soaked in the "bloody discipline" of class formation, imperial violence, and capital accumulation.<sup>14</sup> Man and Nature had very little to do with descriptions of human beings and the rest of nature. This binary was a logic of power and a lever of profit. From capitalism's early centuries, most human beings were in fact excluded, culturally and institutionally, from Humanity and its "civilized institutions." This included virtually all women, indigenous peoples, Africans, Slavs, Celts, Jews, even most peasants and workers! *These* humans were not merely excluded, however. They were *relocated*. To where? To the realm of Nature!

Nature, then, was not merely an "idea" but a practice of bourgeois class power and an instrument of mobilizing Cheap Labor at every turn. Nature was everything the bourgeoisie did not wish to pay for – above all women's unpaid work and the unpaid work of the rest of life.<sup>15</sup> Knitting these two moments together was the Civilizing Project.<sup>16</sup> It took different forms in different eras, but the cultural logic and the accumulation strategy was a constant. As empires, financed by the bankers, moved forth into the Atlantic and later, the rest of the world, they declared the inhabitants of new lands un-Christian, un-Civilized, un-Developed. *Civilization* would deliver, by force of arms if necessary, Salvation, or later Development, or today perhaps, *Sustainability*.<sup>17</sup> Empire would become a "school for Civilization." In this, Civilizing Projects – represented by the modernist fetish of Progress – promised to mobilize the best of all Mankind through the judicious, rational, and effective application of scientific, technological, and commercial rationality. Every time capitalism was challenged, beginning with Malthus in the late eighteenth century, new arguments about Good Science would be mobilized to explain away and justify capitalism's business as usual.

### **A tale of two anthropocenes: scientism & the sustainability of the rich**

Historically speaking, the Anthropocene discourse is distinctive only for its subtlety. Among its great accomplishments is an audacious form of doublespeak, mobilizing the power of Good Science to sustain capitalism under cover of a superficially radical critique. Johan Rockström, the planetary

boundaries superstar and scientific director at the Potsdam Institute, is a perfect example. Trading ideologically on Good Science, Rockström tell us that “our current economic logic no longer works”<sup>18</sup> – while refusing to *name* that logic. At the same, he reassures the “masters of the universe,” the One Percent glitterati who gather at Davos each year for the World Economic Forum. At a 2015 press conference on “*managing* systemic global risk” (!), Rockström makes clear that he has chosen a side. “Planetary boundaries,” he emphasized, “is not a way to hamper development. *It is rather a way to put the incentives in place, to guide the kind of incentives and innovations that Hans in talking about.* So it is about a transformation of abundance within a safe operating space. It is not limited growth – but growth within limits.”<sup>19</sup> Are you wondering who the *Hans* in question is? You should. He is Hans Vestberg, chief executive officer for Verizon Communications. The Anthropocene is Sustainability for the business class. The rest of us can enjoy “abundance” whilst suffocating in coach.

The Anthropocene is neither new nor innocent. Much of it recycles the 1970s imagery and tropes of Spaceship Earth Environmentalism.<sup>20</sup> Even more of it reprises an early modern Man and Nature binary. The grim realities of climate crisis are framed in a momentous collision, there from the beginning: one of Man “overwhelming the great forces of nature.”<sup>21</sup> The earth-system scientists who first coined the Anthropocene, starting with Crutzen and Stoermer in 2001, saw no problem with this Man and Nature cosmology.<sup>22</sup> For them, Man and Nature were *Scientific* terms, free of the value bias that infects humanists and social scientists. Empirical developments that fall outside the remit of Good Science – like the ecocidal Forever Wars waged by the US since 2001 (note the synchronicity with the Anthropocene) – is beside the point. (As if to say: Pay no attention to the warmongers behind the curtain.)

The Popular Anthropocene embodies a longstanding worldview of the One Percent in eras of popular revolt and global crisis – hence Malthus’ counter-revolutionary tract (1798) appeared in the midst of unprecedented radicalism across the Atlantic. Successive Malthusian moments would recur every time capitalism was in trouble. Thus, the reinvention of Malthusianism after 1968, again right in the thick of unprecedented popular revolt.<sup>23</sup> The point can scarcely be overemphasized: Scientific claims about natural law have been fundamental to capitalist governance for a long time. Malthus, writing in a time of widespread worker, peasant, and anti-colonial revolt, advocated an anti-politics of state and market rationality that followed “natural law.”<sup>24</sup> Malthus’ *Essays* – while completely devoid of originality or even logical consistency – were powerful statements of bourgeois naturalism. Its function is to explain capitalist inequality and justify bourgeois politics-as-usual through an abstract Nature. Two centuries later, Paul Ehrlich would announce that the natural laws of population were producing “too many people.” Ehrlich’s Good Science mathematically demonstrated that poor peoples across the Global South were driving the planet to the brink of apocalypse.<sup>25</sup> The real problem in 1968? Not overpopulation. (Whatever that

might mean!) It was rather, the “dangerous classes.” Poor and working people across the world were driving capitalism to brink of social revolution.

Today, some of the crudest forms of Malthusians – *some* – have been supplanted by a more sophisticated ideological formulation. It’s sometimes called *Scientism*.<sup>26</sup> Here again the uppercase is important. No serious observer dismisses the *concrete* research output of climate and earth-system scientists. Their work is fundamental to a socialist politics of climate justice. But we cannot ignore the power of Scientism in the Anthropocene discourse, licensing leading climate scientists to issue apocalyptic warnings and decry a broken economic logic while greenwashing the World Economic Forum’s super-elites and its Environmental NGOs like Conservation International.<sup>27</sup> Such “natural” scientists have been joined by “social” scientists in forging approaches like the “coupling” of human and natural “systems.” Through such systems approaches – which as we will see trace their lineage to the MIT’s Sloan School of *Management* after World War II – Scientism feeds a policy narrative committed to the planetary management of every kind of unruly nature.<sup>28</sup> This underpins the spectacular academic narrowing of planetary research to that which is politically acceptable; hence the ubiquitous request of funding agencies to address “policy implications.” Policy discussions must be “reasonable” and “realistic” in ways defined by the ruling ideas. Please don’t speak of public utility banking, or the decommodification of housing, or euthanizing industrial agriculture!

Management is about control, not liberation. It is decidedly anti-political: it redefines political questions in terms of technical and administrative logics. So if you’ve ever felt that it’s easier to imagine the end of the world than the end of capitalism, the anti-political frame of Man and Nature – and today’s planetary management ethos – is part of the reason. Man and Nature were developed to manage capitalism, not reveal its contradictions.

This is why the Anthropocene conversation erases the history of struggles for a more just and democratic world. In so doing, the Anthropocene reproduces an ecology of hopelessness. It is one Environmentalist expression of neoliberal dogma: *There is no alternative*. This is not new. From its origins, so-called “second wave” Environmentalism was the ideological creation of scientists and a political strategy premised on the courtroom – bankrolled by the Foundations of the billionaire class. It was minoritarian from the outset.<sup>29</sup> It was also a “third way” politics that refused to name the system and consistently distanced itself from working class concerns.<sup>30</sup> In such a framework, one can only accept the necessity of planetary management. Man and Nature are the perfect opiates for an Environmental Imaginary that has always told us the End Times are here, and never wanted to name – much less abolish – the System. Since the early 1970s, this has enabled an outpouring of (often) sincere, but politically meaningless, handwringing on the part of the world’s professional and managerial strata. Meanwhile, the One Percent drives us headlong into the planetary inferno.

The Anthropocene is not one but two. Starting with the search for significant stratigraphic signals – so-called “golden spikes” – the *Geological Anthropocene* raises fundamental questions of long-run environmental history. But too often, the same earth-system scientists behind the geological discussions have spun stories of human affairs, replacing modernity’s messy and contentious histories of power, profit and life with technological and populationist narratives. These latter are captured vividly in scores of “hockey stick” charts. These are useful, up to a point. Geohistory is, however, reduced to a timeline, organized through a series of “black boxes” – what Marx would call *chaotic conceptions*.<sup>31</sup> Population, urbanization, economic growth are all reduced to empirical “indicators” of an abstract globalization. That abstract globalization is, in turn, the inevitable result of an equally abstract Great Acceleration, itself the outcome of an abstract Industrial Revolution.<sup>32</sup> Perhaps such accounts should be called the Great Abstraction! Out of such chaos, the *Popular Anthropocene* was born, implicating Watts’ rotary steam engine from 1784 and “the rapid expansion of mankind in numbers.”<sup>33</sup>

Such neo-Malthusianism has repeatedly served up such Great Abstractions to reinforce Promethean, racialized and gendered accumulation strategies. If one sympathizes with Kate Raworth’s quip that the Anthropocene is really a *Manthropocene*,<sup>34</sup> let’s also underscore that Nature is modernity’s N-word for the web of life. Like racism, indeed prefiguring and conditioning the world color line, Prometheanism is about the rate of profit. To speak of Society and Nature as if they are billiard balls crashing into each other is to absolve capitalism of the Prometheanism that combined ruthless civilizational and class domination with modern rationality, all in service to endless accumulation. Such Prometheanism was therefore *never* an abstract statement of human domination. To see it this way takes ruling ideas at face value. Rather, Prometheanism was always the domination of some humans over the vast majority of humankind, along with the rest of life, in a class project of Cheap Nature.

Prometheanism – and the geocultural domination and devaluation it animates – has been the cultural logic of producing “good business environments.” Even as we recognize that such logics produce oppressions that are “surplus to requirements,” their essential work is to enable expanded flows of surplus value, accumulated unequally in the imperialist centers. Hence the epoch-making contribution of geocultural domination to capitalist development and its vexing entanglements in the 21<sup>st</sup> century climate crisis. Capitalism’s dirty secret goes well beyond a reluctance to pay its bills. (The question of externalization.) It’s also that the world bourgeoisie wages the class war not just over the distribution of surplus value, but also over the conditions of unpaid work.

The climate crisis is now actively suppressing those conditions of unpaid work that are the basis of world accumulation. A favorable climate, historically, has



been a pivotal condition for a rising surplus – and not just for capitalism. Unfavorable climate shifts – and ours dwarfs anything seen in the Holocene – invariably signal a contraction of the surplus. In the fourteenth century, class revolts reinforced agro-ecological contradictions, the Little Ice Age, and disease, effectively signing feudalism’s death certificate<sup>35</sup> The unfolding climate crisis reinforces capitalism’s structural tendency towards accumulation crisis, lending a special character to our times. In the modern world, the great bourgeoisies have responded to great depressions with “new imperialisms”: the imperial-led refashioning of the conditions of Cheap Nature, above all the Four Cheaps of labor, food, energy, and raw materials. The climate crisis not only limits but implodes that logic; turning it inside out, with an explosion of ethno-nationalism as its predictable, and horrific, outcome. This climate implosion marks an epochal inversion of capitalism’s defining relation with and within the web of life. This is the Great Implosion: the transition from the web of life as a cost-reducing and productivity-advancing dynamic to a cost-maximizing and productivity-reducing one.

### **Man, nature & the origins of capitalism**

While the distinction between humans and the rest of life is ancient, the idea that we live in a reality fundamentally shaped by the interaction of Man and Nature is thoroughly modern.<sup>36</sup> While the *human species* has been around for some 300,000 years, Man and Nature is a much more recent vintage. These words assume their contemporary meaning in the English language only in the century or so after 1550, an era of climate crisis, breakneck proletarianization, and the plantation revolution across the Atlantic. In this tumultuous era, Man and Nature took shape as *ruling abstractions*, practical guides to reorganizing human and other webs of life. Cohered by civilizing projects, they created an ethos of domination – the Promethean Man over Nature. Out of such bourgeois naturalism modern racism and sexism emerged, rapidly across the climate crisis of the seventeenth century (1550-1700). (The naturalism that runs through modern racism and sexism – invoking *natural* racial differences or *natural* proclivities inscribed in biological sex – found, as its logical and historical precondition, Prometheanism and the invention of Nature.) All three – Prometheanism, racism, and sexism – were subsequently bound together by bourgeois naturalism and the world-historical drive to advance profitability. None of this is thinkable in terms of the Popular Anthropocene. The Alternative? Locate these world-historical ruptures, marking the origins of capitalism’s long march towards the planetary crisis.

The Capitalocene? Surely the problem cannot be reduced to economics! And to this, the Capitalocene thesis... agrees!! The Capitalocene thesis speaks directly to the origins and development of a geohistorical era that unified new strategies of domination, exploitation and environment-making. The emergence of the capitalist world-ecology extended well beyond the economic. The Capitalocene knitted together new patterns of class

exploitation and surplus accumulation in the web life. Its geological impact was immediate.

We are accustomed to thinking today's climate crisis is the first *capitalogenic* climate crisis. It is not – although ours *is* qualitatively distinct. The Columbian invasions that commenced in 1492 marked a geobiological watershed in two major ways. One was the creation of a capitalist Pangea, 175 million years after the supercontinent drifted apart. The Orbis Spike of 1610 – the *geological* origins of the Anthropocene – marked the dramatic reduction of atmospheric CO<sub>2</sub>, the direct result of genocide, itself driven by slaving and other Cheap Nature strategies.<sup>37</sup> This formation of a capitalist Pangea put the potential work and energy of two continents at the disposal of imperial war machines and their bankers, together constituting not an abstract “settler colonialism” but rather creating colonial bourgeoisies (planters, merchants, mine owners, ranchers, etc.). The second followed on the heels of the first. No profits could be realized in the Americas without Cheap Labor. The vortex of imperial conquest and colonial class formation demanded ceaseless human sacrifice. (And so it helped that indigenous peoples were regarded as part of Nature.) Microbes did not kill 95 percent of the New World's population; slaving did.<sup>38</sup>

Those strategies were not the disembodied logic of capital accumulation. They were executed and enabled by the imperialist export of military revolution to the Americas and by an entirely novel mode of geocultural domination.<sup>39</sup> Not for nothing, the earliest juridical forms of the world color line – in places like Bahia, the West Indies, and the Carolina – appeared during the long seventeenth century's climate downturn, reinforced by the Orbis Spike.

Under Prometheanism, Man stood before Nature as God stood before Man. It was a short stop to racialized formulas, since Nature already included those “imperfect” humans who would soon be racialized. In this formulation, Man had nothing to do with the human species as such; it was the “over-represented” fantasy of the imperialist bourgeoisie.<sup>40</sup> For sixteenth-century Spaniards, Prometheanism held that the “imperfect” natures of indigenous peoples might be Saved through hard work for good Christians.<sup>41</sup> It was an animating principle followed by all succeeding empires, whose priests and soldiers, merchants and planters, quickly “discovered” colonial peoples to be savage, irrational, and otherwise unfit for Civilization. Such peoples – indigenous, African, Celtic, Slavic and countless others – were Naturalized, the better they could be Civilized.

In successive eras of world history, empires – congeries of bibles and lawyers, guns and money – would redefine that Civilizing Project. Every time, we were told, these projects would bring out the best of all mankind. For the English and then British, this was John Locke's Improvement set against those living in a state of nature; for the Americans, it was Manifest Destiny, and a century



later, President Truman's Point Four Developmentalism, redefining with the stroke of a pen eighty percent of the world as un-Developed. When Bibles and secular declarations wore out their welcome, neoliberal shock doctrines and "free market" screeds replaced them.<sup>42</sup> Old wine, new bottles.

What does this have to do with the climate crisis and the Anthropocene? *Everything*. The history of Prometheism and its Civilizing Projects link not only questions of power, economy, and domination, but open new vistas that connect these questions with and within webs of life. Perhaps its crucial insight identifies how the modern creation of *Man* and *Nature* deprived most human beings of their humanity – starting with women, who after 1550 became savage, unruly and otherwise in need of *Man's* civilizing and rational guidance.<sup>43</sup> They were relocated to *Nature*, the better they could be cheapened – and more readily the new bourgeoisies could accumulate without limit.

Nature became everything that the bourgeoisie did not wish to pay for. Its *Cheapness* extended well beyond driving down the costs of production for sugar planters, shipbuilders, ironmakers, and armorers – it was a strategy of domination and accumulation that joined the "economic" moments of *valorization* to an unprecedented apparatus of cultural *devaluation*. This is at the heart of the world-ecological conversation – and the Capitalocene alternative. Racism and sexism, soaked in bourgeois naturalism, flowed readily from such Prometheism. All were mechanisms for sustaining the unpaid work not just of human nature but of all webs of life.<sup>44</sup> Those mechanisms are today breaking down.

### Planetary management, or, how to avoid seeing like a boss

We may then, pause for a moment – and perhaps break from our despair – when reading the IPCC's recent statement: "It is unequivocal that human influence has warmed the atmosphere, ocean and land."<sup>45</sup> This is unequivocally true. But only up to a point. For "*human influenced*" is the most vague – and ideological charged – phrase we could imagine. Here is the Environmentalist Mirage, circulated through a worldwide network of institutions, NGOs, and government ministries since the early 1970s: The Crisis is here. It is a conflict **between** Man and Nature. It is propelled by some concert of reckless demographic growth and unsustainable technology. In this ideological universe: *There is no alternative* (as Margaret Thatcher was fond of saying). *Anthropogenic* climate change demands that we turn over the planet to virtuous and expert personnel capable of planetary management. Please don't say capitalism. Or socialism. Or even, *democracy*.

For Planetary Managers, democracy is a problem to be, well, *managed*. Its roots go back to the conquest of the Americas and management of Cheap Labor. Within Europe, the tipping point in proletarianization was reached after 1550, raising far-reaching questions of labor control. It was in this context that Cartesian dualism, premised on a strict separation of thinking and doing, and

an explicit Promethean outlook, took shape. Renée Descartes, writing in 1630s and '40s, channeled the zeitgeist. Descartes wrote his major works in the Dutch Republic, not only the most proletarianized region of western Europe, but also the headquarters for the seventeenth-century's world-ecological revolution.<sup>46</sup> What has escaped notice is that Descartes' outlook was a management philosophy. Distinguishing between *thinking things* and *extended things* as discrete essences, and prioritizing the domination of the latter by the former, Descartes crystallized the geocultural "premises of the work-discipline" that capitalism required.<sup>47</sup> It was a move that readily lent itself to the ideological separation of Civilization and Nature: "We must make ourselves the masters and possessors of nature."<sup>48</sup> Thus were planetary and labor management joined from the earliest moments of capitalism, united by a pursuit of what Harry Braverman famously called the "separation of conception from execution."<sup>49</sup> Even in these early centuries, the managers reorganized production so that "thinking" work concentrated in the minds of the bosses, and "extended" work concentrated in the hands of the workers, human and extra-human.<sup>50</sup> This was part of a wider systemic movement to restructure production as a series of interchangeable parts – a restructuring then-unfolding in sugar plantations, mining centers, and shipyards as Descartes penned his classic texts.

And what of *planetary* management? This came in fits and starts. Before the twentieth century, its major expressions were found in forest management – again, dating from the long seventeenth century.<sup>51</sup> After World War II, however, the American Empire set about not only Civilizing the un-Civilized – under the sign of Development – but also constructing a "spaceship earth" uniquely favorable to American geopolitical and economic priorities.<sup>52</sup> It was an audacious elaboration of the "scientific management" revolution associated with Frederick Winslow Taylor and twentieth-century Fordism in the early twentieth century. Intellectually, its signal accomplishment was the systems dynamics modeling of Jay W. Forrester in the 1950s and 1960s. The systems models that led to 1972's *The Limits to Growth* – the blockbuster Environmentalist study – were developed at MIT's Sloane School of Management, where Forrester, the engineer, had become a professor of management. In case you're wondering, the *Sloane* in question was the pioneering – and aggressively anti-labor – CEO of General Motors. Today's earth-system models – and the Popular Anthropocene – trace their lineage to a management school. Conscious of it or not, they are socialized to pursue Good Science framed by managerial common sense. The Popular Anthropocene may just as readily be described as Biospheric Taylorism. Its political ontology remains captive to the early modern Cartesian imaginary: of "thinking things" (the planners, the scientists, the bosses) and everyone else, "extended things." This sensibility unifies the dominant tendency of environmentalist thought from Descartes to Malthus all the way to *The Limits of Growth* and the Popular Anthropocene.

The Capitalocene alternative, as we are learning, does not quibble with the geological Anthropocene's search for "golden spikes." The Capitalocene is a geohistorical argument that takes biogeographical and climatological change as one, vital, point of departure. It posits the modern world-system as a capitalist world-ecology of power, profit and life. It is a critique of economic reductionism, but also a critique of culturalist approaches that capital and class. Finally, the Capitalocene conversation insists that the origins of planetary crisis are found not in a reified "Europe" but in the emergence of a capitalogenic trinity during the seventeenth century: the climate class divide, climate apartheid, climate patriarchy. These are not the results of climate change but its drivers.

The sharpest contradictions of this capitalogenic trinity are increasingly inescapable – and for a simple reason. The few remaining frontiers of Cheap Nature have been enclosed and exhausted – none more dramatically than the atmospheric commons. Such Cheap Natures have been, for five centuries, the chief way of counter-acting capitalism's surplus capital problem. (In a nutshell, this is the tendency to accumulate more capital than can be profitably reinvestment – it is a "surplus" relative to diminishing investment opportunities.) Thus the twofold character of today's planetary crisis: a crisis of life-making and profit-making, manifested in skyrocketing CO2 concentrations and 17 trillion dollars of surplus capital parked in zero or negative rate of return government bonds.<sup>53</sup> This exhaustion of Cheap Nature did not appear overnight, even if its contradictions appear to have crossed a threshold in recent years. This of course is the history of neoliberal capitalism, which in the absence of vast Cheap Nature frontiers has pursued an unprecedented effort to privatize, dispossess, and plunder the wealth of planetary life and the direct re/producers.<sup>54</sup> I once called this a "Robin Hood in reverse" strategy – stealing from the poor and giving to the rich.<sup>55</sup> It has also been a grand movement of appropriating and exhausting extra-human life, essentially robbing webs of life to sustain the rate of profit. This is exactly what one would expect to see in an era when frontiers of Cheap Nature, and the investment opportunities that such frontiers have created, are rapidly fading relative to an unmanageable and hyper-volatile financialized capitalism.

Too often discussions of Anthropocene, Capitalocene, and all the rest turn a blind eye to capitalism's contradictory unities. Marx's genius was precisely to contribute to a deeper understanding of these world-historical contradictions. For not only does Marx link the economic analysis of accumulation with the sociology of class formation and class struggle. He also demonstrates that every moment of class exploitation under capitalism – the struggle over surplus value – is irreducibly socio-ecological.<sup>56</sup> To this I would add: every moment of economic *valorization* depends upon even more expansive moments of *devaluation* and the appropriation of unpaid work/energy. Such *accumulation by appropriation* is fundamental to capital accumulation. Devaluation is its geocultural logic. It is the ideological battleground of racism, sexism, and manifold oppressive dynamics that flow from the

Civilizing Project. The world proletariat (in fact a semi-proletariat including manifold precariats and agrarian classes of labor), depends upon, and overlaps with, the global femitariat and the global biotariat – the unpaid reproducers of capitalism as a “mode of life.”<sup>57</sup> A revolutionary approach to the climate crisis will need to wrestle seriously with the contradictory unity of valorized and devalued moments of the world class struggle. It will need to link the contradictions of “socially necessary labor time” with the socially necessary sources of unpaid work, performed by “women, nature and colonies.”<sup>58</sup>

Such connections – between paid and unpaid work, between humans and the rest of nature – are made possible through a historical materialism in the web of life. It allows us to grasp the diversity of life (from which “the writing of history must always set out,” Marx and Engels remind us) as variously inside, outside, and in between the mosaic of human sociality.<sup>59</sup> Humans are, like all life, an environment-making species; evolution is not a passive adaptation, but an active reconstruction, of environments.<sup>60</sup> So too with human organizations: from families to financial centers to modes of production. Indeed, the history of class society is a “*twofold relation*: on the one hand as a natural, on the other as a social relation.”<sup>61</sup> Through the labor process, environment-making exerts a transformative effect on both worker and environments. In this “metabolism [of] labor... [the worker] sets in motion *the natural forces which belong to his own body*,... Through this movement *he acts upon external nature and changes it*... In this way he *simultaneously changes his own nature*.”<sup>62</sup> Capitalism is therefore not simply a “mode of production” but a “mode of life.” Its twofold character is an irreconcilable antagonism. This way of seeing opens a new vista on the politics of the century ahead. To borrow from Immanuel Wallerstein, ours is moment of “worldwide class struggle” in the “socio-physical conjuncture” of the early 21<sup>st</sup> century.<sup>63</sup>

Planetary justice and the planetary proletariat: towards the proletarocene?

How does the left move from seeking to be a rational planetary manager to being a comrade with webs of life? The latter possibility is suggested by Marx when he – *repeatedly* – refers to humans as a part of nature, and to labour as internal to nature. He insists that human labour is mobilized dialectically with “the rest of nature” – or sometimes “external nature.”<sup>64</sup> That means something straightforward: the labour process, and therefore class structure, changes as it transforms the fullest spectrum of “specific nature[s] (say, here, still earth, land, soil).”<sup>65</sup> Civilizations are *modes of life*. They develop, and generate crises, through an environment-making dialectic grounded in work relations. Here class society appears as a producer and product of webs of life. Marx’s emphasis on “uncontrollable natural conditions” in shaping the value of commodities – and the underlying basis of capital accumulation – may be recognized as intimately bound to modern work. Capitalist production not only produces commodities, but also climate conditions that are, as Marx underscores, “uncontrollable.”<sup>66</sup> More to the point, they are *undesirable* from

the standpoint of capital – perhaps most obviously in the deepening yield suppression impacts of climate change on agricultural productivity.<sup>67</sup>

We might remind ourselves that a *socialist* politics of planetary justice is not about “saving nature.” It is about the liberation of all life from the tyranny of capitalist work – or it is nothing.<sup>68</sup> This is the “twofold character” of planetary work in capitalism, at once *social* and *natural*, distinctive moments of an evolving geohistorical process. The dominant forms of socialist and environmentalist politics have severed this dialectic. Coming closest has been the feminist socialist insistence on the unpaid reproductive work delivered by working-class women.<sup>69</sup> This is the standpoint of the femitariat, grasping the “real movement” of the proletariat through shifting configurations of paid and unpaid work and its twofold character.<sup>70</sup> At every turn, these configurations reveal the bourgeoisie’s pursuit of a “gendered surplus”: class-driven asymmetries of “second shifts” and the prolongation of the working day.<sup>71</sup> This insight is fundamental not only for linking the violent combinations of sexism and proletarianization – incorporating capital’s limitless drive to extend the unpaid working day – but for grasping the world-historical unity of wage-work with the extra-economic appropriation of planetary work. Even most ecosocialists have yet to translate the socialist feminist synthesis of proletariat and femitariat to webs of life “put to work” for capital: the *biotariat*. When Maria Mies argues for the centrality of “women, nature, and colonies” in capital accumulation, she is not calling for an abstract “intersectionality.” She is pointing to the imperial bourgeoisie’s *class project*, one that yokes sexism, Prometheanism, and Civilizing Projects to proletarianization, superexploitation, and the “the immanent laws of capitalist production... and competition.”<sup>72</sup>

She is also, implicitly, calling for the abolition of the planetary proletariat – in its shifting, uneven and above all interpenetrating configurations of proletariat, femitariat, and biotariat. These unified yet diverse moments of work are not only structures against which we must mobilize, but also historical patterns and possibilities that increasingly limit capital’s self-reproduction as it has existed since 1492.<sup>73</sup> The climate crisis is a moment of revolutionary possibility.

The implication is crucial. There can be no effective politics of “nature” separate from the politics of work – and not only because *all* workplaces are sites of environment-making (offices, factories, fields, forests, restaurants, mines, retail outlets). No less significant is the enduring power of Man and Nature, which tells us that Nature is the antonym of work. The ideological violence, with horrifying physical expressions, is hard to overstate: women’s work became “non-work” through the re-signification of Woman as Nature; race, ever Naturalized, becomes the justification for “natural” proclivities that consign workers of color to the lowest-paid and most dangerous jobs; Environmentalists, as in the United States since 1970, refused to mobilize in

support of miners, farmworkers, chemical workers, and the working class women who pioneered the anti-toxics movement.<sup>74</sup>

The world-ecological alternative follows Marx's extraordinary specification of the "real movements" of class struggle in the modern world as irreducibly socio-ecological. The "young" Marx, writing in his mid-20s, grasped the problem perfectly – and presciently. In a misunderstood passage, he reminds the reader: saying "man's physical and spiritual life is linked to nature means simply that nature is linked to itself, for man is a part of nature."<sup>75</sup> It's misunderstood because this is a *critique* of Man and Nature thinking, explicitly rejected in *The German Ideology* just a year later. The problem with the idealists is their "the polar opposition of man and nature."<sup>76</sup> Marx and Engels, in contrast, foreground the historical "*universality* of man" which "appears in practice precisely in the *universality* which makes all nature his inorganic body." *Universality*, in their hands, has nothing to do with "Western Universalism." Rather, it is a philosophical abbreviation for capitalism's world-historical tendencies. Capitalist "universality" is a "world-historical... empirically verifiable" movement – a tendency that "makes all nature... [the] inorganic body" of capital.

In this way, a revolutionary dialectic reveals the connections between exploitation, domination and webs of life at the heart of capitalism's geohistorical logic. The political implications are significant. If we are to take seriously what Jodi Dean calls the *communist horizon* – the practical possibility for the emancipation of every kind of worker enslaved by capital – we must identify, mobilize, and unify all three moments of the planetary proletariat. That challenge is far more than philosophical; only by grasping the combined diversity of the capitalist world-ecology can we identify and focus our energies on the weak links of the capitalist chain in the planetary crisis.<sup>77</sup> Such an approach pursues the relational emancipation of proletariat, femitariat and biotariat – such that an injury to one is an injury to all (to borrow an old slogan of the American labor movement).

I am painfully aware that such emancipatory struggles have been, and will continue to be, uneven. Nevertheless, climate justice politics cannot advance without a working class internationalism that confronts the climate class divide, climate apartheid, and climate patriarchy as a "rich totality of many determinations"<sup>78</sup> – always with and within webs of life that have themselves been degraded and alienated. Let us remember that the affirmative dialectical corollary to Marx's oft-quoted observation on capitalism's degradation of "the soil and the worker" is this: the communist horizon is the real historical movement of the class struggle in the web of life.<sup>79</sup> The aims of that movement must, for Marx, refuse the bourgeois conceit that humans are "owners of the earth." No indeed! Humans "are simply its possessors, its beneficiaries, and have [a moral and political obligation] to bequeath it in an improved state to succeeding generations."<sup>80</sup> *Communism*, then, "is not for us... an ideal to which reality [will] have to adjust itself... [It is]



the *real* movement” of class struggle in its “world-historical existence.”<sup>81</sup> Whither that “real movement” in the climate crisis? That depends on the degree to which liberation movements transcend the prisonhouse of Man and Nature, and connect what has been disconnected, philosophically and practically: the connective tissues of life-making and work against the managerial imperatives of the planetary bourgeoisie. Our chances? To paraphrase Immanuel Wallerstein, perhaps 50-50.<sup>82</sup> But only if we embrace the “rich totality” of the planetary proletariat and unify the class struggle across the great divides of paid and unpaid work, of humans and the rest of life. Then perhaps there is a chance that the “expropriators will be expropriated” on the winding road toward planetary justice.

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