

# Between the Devil & the Deep Blue Marble

*Capitalism, Nature and the Promethean Gaze,  
from Mercator to the Space Age*

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No civilization has organized through the visual more than capitalism. Its capacity to image, survey, and map planetary ecologies of every kind has been a centerpiece of modern world history. That's a story of capitalism, not as a narrowly-defined economic system but as a way of organizing life: as a world-ecology premised on endless accumulation and the endless conquest of the earth.<sup>2</sup> At its heart is a lethal cocktail of big capital, big empires, and big science. From that epochal trinity emerged a mode of production – including its spectacular repertoire of visual *technics* – that transformed webs of life into profit-making opportunities.

The Environmental Imaginary and its visual technics are essential to the story of climate crisis and its capitalogenic development. I write these lines out of a growing conviction that modernity's most significant technologies are not merely hardware; they are *software*. For Marx and Engels, these are the “means of mental production.”<sup>3</sup> That's significant, because capitalogenic climate crisis is not reducible to machines and resources. Such reductionism blinds us to the crucial role of capitalism's software, the outputs of capitalism's mode of thought. Blow up a pipeline, and you can slow fossil fuels for a day. Revolutionize the relations of thought, capital, and technology that produced those pipelines, and you can stop excessive carbonization for good. It's a good reminder of an old radical slogan: *You can't blow up a socio-ecological relation.*

These relations flow through the *oikeios*: the pulsing, creative and multilayered webs of life in which we all swim. These webs can be channeled but never controlled. In the modern world – a capitalist world-ecology of power, profit and life – the dominant forces seek to fool us, and in so doing deceive themselves. To discern some essence of these flows and webs, we need geohistory.

The mirror image of climate doomism is capitalist Prometheanism, the fantasy that webs of life can be reduced to Nature. You'll notice the upercase. *Nature*, after 1492, was no innocent word. It became a hammer of empire and capital, a *ruling abstraction*, wrapped up with thoroughly capitalist practices of power-seeking and profit-making. It was a dramatic rupture with medieval

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<sup>1</sup> English text of Jason W. Moore, “Kapitalismus, Natur und der prometheische Blick von Mercator bis zum Weltraumzeitalter,” in *Image Ecology*, Kathrin Schönegg and Boaz Levin eds., C/O Berlin (Leipzig: Spector Books, 2023 in press).

<sup>2</sup> J.W. Moore, *Capitalism in the Web of Life* (London: Verso, 2015).

<sup>3</sup> K. Marx and F. Engels, *The German Ideology* (New York: International Publishers, 1971), 64.

thinking about humans in the web of life. Nature became a zone of reality separate from Civilization: unruly, wild, un-civilized. It justified two major processes. One was the Civilizing Project. The new empires saw the “civilizing” of “savage” humans as amongst their greatest responsibilities. Through *Nature*, Civilizers enclosed the lives and labors of most human beings along with new frontiers. Importantly, Nature became an imperial claim to the unpaid work/energy of “women, nature and colonies.”<sup>4</sup> A second element of this new ruling abstraction was the instrumentalization of Civilization and Nature into an imperial-managerial philosophy. To borrow from Descartes, “thinking things” managed “extended things” (including human natures) – endowing the new bourgeoisie with an epochal responsibility: “We must make ourselves the masters and possessors of nature.”<sup>5</sup>

Henceforth the world bourgeoisie would seek to manage the planet as if it were an electronics factory, a sugar plantation, an insurance office.<sup>6</sup> To this end, it had to map the planet as if it was a potential storehouse of Cheap Nature. Hence modernity’s successively more complex spatial-visual technics – and infrastructures – of planetary surveillance: mapping, surveying, and photographing planetary spaces in ways that would reveal profitable natures while cleansing the Environmental Imaginary of contentious struggles between landlord and peasant, colonizers and colonized, bourgeois and proletarian. *Geohistory* is the antidote to this imperial Imaginary.

Geohistory means, simply, *earth history*. It is a way of seeing that defies, and pursues alternatives to, the imperialist “god trick,” from Mercator’s projection (1569) to the *Blue Marble* (1972). That Promethean gaze has been as pivotal to the making of the modern world as any shipyard, cannon foundry, or assembly line. It is not only a means of mental production, but fundamental to the production of those means of production: a software “Department I” necessary to run the machinery of world accumulation. Its bread and butter is fragmentation and control, creating fictions of thinking and doing, of managerial conception and proletarian execution, of Civilized and Savage.

Against these god tricks – are they not all the more devilish for their deceptions? – stands an alternative. Let’s call it geohistorical materialism. This is a way of seeing – and cultivating – the possibilities Marx glimpsed on the communist horizon: “the complete unity of man with nature—the *true resurrection of nature*—the accomplished naturalism of man and the accomplished humanism of nature.”<sup>7</sup> Orwell’s observation about Shakespeare readily applies to Marx: he had a “curiosity, he loved the surface of the earth and the process of life.”<sup>8</sup>

That curiosity and love of the earth and life is essential to any revolutionary mode of thought seeking to destabilize, and defend against, the planetary

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<sup>4</sup> M. Mies, *Patriarchy and Accumulation on a World Scale* (London: Zed, 1986), 77.

<sup>5</sup> R. Descartes, *A discourse on the method of correctly conducting one’s reason and seeking truth in the sciences* (Oxford: Oxford University Press, 2006), 51.

<sup>6</sup> J.W. Moore, “Power, Profit and Prometheanism, Part I,” *Journal of World-Systems Research*, 21(2, 2022), 415-426.

<sup>7</sup> K. Marx, *The Economic and Philosophic Manuscripts of 1844* (Moscow: Progress, 1959), 92.

<sup>8</sup> G. Orwell, “Lear, Tolstoy and the Fool,” *Polemic* 7 (1947), 2-18, quotation: 8.

managers, the financial bosses, the clandestine special ops forces in this era of unprecedented crisis. Such a task will require forms of knowledge and praxis that flow from the love of the surface of the earth and the process of life – a love that asks for the skills and insights of the philosopher, the poet, the scientist, the social scientist... and artists of every kind. Therefore, our assessments of the climate crisis and their political implications must be as geopoetic as they are geohistorical; we must focus on the relations of ideology and science as they entwine with and co-produce the hardware of pipelines and missile guidance systems. The two moments – the software and hardware of capitalist ecocide and exploitation – are dialectically joined, from Columbus to America’s Forever Wars.

These days I often read about how fossil fuels, fossil fuel corporations and associated infrastructures of pipelines, highways and airports are “killing” us, nature, the planet. In the mid-2010s, serious campaigns lobbied university and retirement portfolios to divest fossil fuel capital. Farther left, a socialist version of the argument has gained popular traction: fossil capitalism.<sup>9</sup> The argument rehabilitates an old historical trope that goes back to the later nineteenth century, when the (elder) Toynbee minted the phrase Industrial Revolution. At its core, the fossil capital thesis holds that there is something essential about capital’s relation to fossil fuels, a view that readily translates into techno-resource determinism. Reducing the climate crisis to the machines that burn carbon, we assume fossil fuels and pipelines, not capitalists, are the enemy.

No reasonable person denies that less carbon must be burned – *a lot less*. But coal did not make capitalism. Fossil fuels (peat, coal, oil and gas), as resources, were *invented by* capitalism.

That geohistory matters. Our political assessments of climate crisis flow from it. Peat, coal, oil and gas are not “just there.” To paraphrase Marx’s keen observation on slavery, coal is just a rock in the ground; only under definite geohistorical relations does it become a fossil fuel. Rocks are rocks; resources *become*.

Consider the origins of the climate crisis.

The steam engine was no technical *deus ex machina*. The steam engine was the product of the spatial-visual revolution. Its epochal character was enmeshed in many developments, not least two great waves of enclosure prior to the nineteenth century. One occurred in the sixteenth and seventeenth centuries. The second was the great burst of Parliamentary enclosure after 1760. These modern enclosures – certainly not limited to England – fused the means of mental production with state power, economic logic, and the developing *material* means of production. Enclosure, through which proto-capitalist gentry transformed commons into private property, was enabled by a specific spatial-visual technique: the modern survey.

Modern surveys were necessary to produce capitalism’s most basic abstraction: bourgeois property. Property is of course a visual technics *par excellence*; it entwines the visual fetishes of “economic” property with the fetish of Nature as life that can be bound and sold as any other object. Surveys emerged through the intellectual revolution of the late medieval Renaissance,

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<sup>9</sup> A. Malm, *Fossil Capital* (London: Verso, 2016).

not coincidentally in the era's financial and mercantile heartlands. This revolution rehabilitated – then radically developed – new, highly quantitative forms of visual knowledge and technique. The new surveys redesigned commons by reimagining such spaces as geometric and interchangeable. Property's "natural distinctness" could be dissolved through the alchemy of monetized and surveilled land.<sup>10</sup> Landownership, increasingly and especially in England, was reduced to "facts and figures, a conception which inevitably undermines" the hierarchical yet reciprocal ties of feudal agrarian life.<sup>11</sup> The survey, in other words, was a productive force, at once mental and material. It enabled an agricultural revolution whose combination of productivity and dispossession produced the labor-power necessary to work the "satanic mills" and the Cheap Food necessary to feed those workers without threatening the bottom line.

Surveying was embedded in a wider spatial-technical revolution that produced planetary cartography as a productive force. As we are learning, the rise of capitalism was far more than a set of economic and political revolutions. It was an intellectual revolution. Through it cohered a new mode of thought designed to subordinate webs of life to a ruthlessly Promethean logic of profit-maximization. Among its greatest productive – and also destructive – forces were visual technics: the map and the survey above all, implicated in a mode of thought that scholars call ocularcentric.<sup>12</sup>

Conquering the globe and subjecting it to profit-driven surveillance required more than guns, boats and Bibles. It demanded a relentless, alienating and intrusive visual imaginary. Long before *Blue Marble*, globes circulated throughout the early modern world; the earliest survival dates from, I kid you not, 1492. Donna Haraway calls these perspectives *god tricks*.<sup>13</sup> They were – and remain – a concrete class-imperial project, a paradigm shift essential to the new mode of production. God tricks took shape through a novel world-historical synthesis: between Iberian geopolitical power and the financial bourgeoisie of the Italian city-states, not coincidentally home to Renaissance Humanism and its mathematical revolution. Utilizing these thoroughly modern god tricks, a disembodied eye could stand above, beyond, and *outside* planetary space. This wasn't about some metaphysical will to power; it was a technical revolution designed to enhance imperial power, geo-prospecting, and the construction of the modern world market. These visual technics were practical tools in controlling, fragmenting, and managing planetary life in service to endless accumulation.

This line of thought upends our usual narrative of "the" Industrial Revolution. The modern map, not the steam engine, comes into focus as modernity's decisive "technological" breakthrough. If you want to understand steam engines and climate crisis, you'd best begin with the spatial-visual technics that set them in motion. Without modern cartography, there were no

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<sup>10</sup> K. Marx, *Grundrisse* (New York: Vintage, 1973), 141.

<sup>11</sup> A. McRae, "Estate surveying and the representation of the land in early modern England," *Huntington Library Quarterly*, 56(4, 1993), 333-57, quotation: 341.

<sup>12</sup> M. Jay, *Downcast Eyes* (Berkeley: University of California Press, 1993).

<sup>13</sup> D. Haraway, "Situated Knowledges," *Feminist Studies*, 14(3, 1988), 575-99.

conquests, no international divisions of labor, no modern empires, no commodity exchanges, no military revolutions.

Modern Nature was visual and cartographic in a way no pre-capitalist civilization could contemplate. Nature could be Cheapened, and transformed into an Archimedean lever for a planet-encompassing logic of accumulation, only once it was invented. That invention required an epochal synthesis: of Renaissance perspective with mechanical printing. Most commonly associated with Guttenburg's press, in this epochal synthesis the printed word was arguably secondary to the mass-produced image. In Boaz Levin's gifted formulation, Cheap Nature depended upon the *Cheap Image*: a project and process of rendering human and extra-human webs of life external, fragmented, and therefore – above all – controllable. Extending Sekula's groundbreaking insights, Levin underscores photography's emergence through a long history of the Capitalocene's "instrumental scientific and technical realism."<sup>14</sup>

Cheap Imaging is at once producer and product of that realism and its capacity to serve the accumulators of capital. More than a narrow question of epistemological and representation practice, it formed an essential software/hardware nexus for the emergent capitalist world-ecology. Specifically, it was central to "the emergence of a truth apparatus that cannot be adequately reduced to the optical model provided by the camera. The camera is integrated into a larger ensemble: a bureaucratic-clerical-statistical system of 'intelligence.'"<sup>15</sup> As such it was ideologically and instrumentally indispensable. Far from a product of nineteenth-century capitalism, this "instrumental realism" was joined to an imperial "scopic regime" from capitalism's earliest stirrings.<sup>16</sup> From Levin and Sekula, we can therefore start to make sense of the deep history joining early capitalism's revolution in visual technics to its imperial metabolisms, and from there understand today's politics of climate justice, which foreground late capitalism's ideological struggles around "saving nature" and its visual iconography. From this standpoint, the Cheap Image thesis reveals – as we see from Mercator to the Blue Marble to the Anthropocene – the complicity of photography in capitalism's "universal language" and its "rational mastery of the world."<sup>17</sup>

The Cheap Image was therefore not merely a result, but an instrument, of the scientific and ideological revolutions necessary to launch and sustain the endless accumulation of capital. That accumulation has been monstrously destructive and inefficient, as generations of environmental thinkers have

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<sup>14</sup> Boaz Levin, "The Pencil of Cheap Nature: Towards an Environmental History of Photography," manuscript (2023); Allan Sekula, "The Body and the Archive," *October*, 39(1986), 3-64, quotation: 16.

<sup>15</sup> Sekula, "The Body and the Archive," 16.

<sup>16</sup> Quotations from, respectively, Levin, "Pencil of Cheap Nature," and Christian Metz, *The imaginary signifier: Psychoanalysis and the cinema* (Bloomington: Indiana University Press, 1981).

<sup>17</sup> Quotations from, respectively, Allan Sekula, "The Traffic in Photographs," *Art Journal*, 41(1, 1981), 15-25, quotation: 16; Max Weber, *The Religion of China* (Glencoe, IL: Free Press, 1951), 248.

underlined.<sup>18</sup> To offset these tendencies, the trinity of capital, science, and empire had to find new sources of unpaid work/energy on the frontier. Frontiers could be vast continents, subterranean coal mines, or untapped reservoirs of cheapened “women’s work.” This is the centrality of Cheap Nature: a logic of power, an accumulation strategy, and a way of seeing – and policing the boundaries between – the Civilized and the Savage. (Later rebranded as Developed and Undeveloped.) Hardly limited to soils and streams, forests and fields, the *Nature* in Cheap Nature encompassed humankind’s vast majority from the beginning. Indigenous peoples and women were among the first to be redefined, *Naturalized* – witness the 1509 woodcut depicting naked (and therefore Savage) Brazilian women attacking European Man (see Figure 1). New capitalist strata and their state-machineries worked hand-in-glove to dispossess *these* humans of their place in the new order. They did so for a specific reason: to secure their unpaid work/energy for profit-maximization. Cheap Labor, in other words, was fundamental to the Cheap Nature regime, enforcing the dispossession of peasants from their land, and, more ominously, evicting women, indigenous peoples, Africans, and countless others from a place in Civilization. At every point, the new scopic regime visualized the Civilizing Project as the triumph of heroic Europeans over the faceless and savage indigenous peoples of the New World (see Figure 2).

The rise of capitalism entailed not merely a civilizational fetish but a radically new conception of Nature as the zone of the savage, wild, and undisciplined. This can be seen in three significant ways. First, there was a mighty transition from medieval conceptions of multiple spherical, organic lifeworlds to a singular globe, mapped from the standpoint of European capital and empire. Imagined as a globe, the Civilizing Project rendered the Earth “an object of appropriation.”<sup>19</sup> Second, the modern map was developed across the fifteenth and sixteenth centuries. The new maps were more than state secrets; they were productive forces. Cartography provided the software for the epochal hardware of the era’s militarized and commercialized shipbuilding and shipping revolution. Early capitalism’s greatest innovation – the trans-oceanic empire – was possible only through maps. These allowed not only the navigation of planetary space, but its profit-driven subordination. Finally, these cartographic achievements enabled the mapping of planetary life, producing modern conceptions of Nature and Science. From sixteenth-century Iberian acclimatization gardens to Britain’s Kew Gardens to the American-led Green Revolution research networks, “the” planetary environment was produced as an imperial project under the sign of Good Science. What Habermas famously called the “scientization of politics” – the anti-political evacuation of contentious democratic politics from bourgeois governance (like today’s

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<sup>18</sup> R. Patel and J.W. Moore, *A History of the World in Seven Cheap Things* (Berkeley: University of California Press, 2017).

<sup>19</sup> T. Ingold, “Globes and Spheres,” in *Environmentalism*, K. Milton, ed. (New York: Routledge, 2003), 29-40, quotation: 36.

Anthropocene discourse) – has a lineage that reaches back to these early modern developments.<sup>20</sup>

The god trick was product and producer of a new, revolutionary social class: the bourgeoisie, allied with new empires and new administrative and scientific cadres, the forerunners of today's professional-managerial class. Among the necessary tasks of the new bourgeoisie – then in formation in places like Genoa, Florence, Lisbon, and Antwerp – was the development of a new, ocularcentric means of mental production. These would allow them to conceptualize, visualize, and practically represent – through cadastral and cartographic procedures – a novel command over space. Gone were the overlapping and multi-use rights of medieval sovereignty and commons arrangements. Exclusive territoriality and property rights could be secured only through a new way of seeing humans, the land, and webs of life. Land became property. Time, money. The web of life, Nature.<sup>21</sup> At the center of this process – Marx called it primitive accumulation for its bloody and violent character – was “appropriation of space.” These procedures sought to “achieve visually... what survey, mapmaking and ordnance charting achieved practically: *the control and domination over space as an absolute, objective entity, its transformation into the property of individual or state.*”<sup>22</sup>

The new Environmental Imaginary – premised on the bourgeois conceit that the trinity of science, capital and empire had “discovered nature as a whole” – formed through ocularcentric *technics*.<sup>23</sup> One reads often these days about cognitive and surveillance capitalism. Too often we forget that these were immanent to the formation of a capitalist world-ecology after 1492 – and immanent to the imperial apparatus of planetary management today.<sup>24</sup> From Mercator to Google Maps, one can run a red thread of power, profit and planetary surveillance. Each moment has been intimately connected to the search for profits and the lust for power it calls forth. Each extended bourgeois-managerial control over life through a software enabling (and enabled by) the material means of production and destruction. Through this nexus, the bourgeoisie transformed “information society into a control society and... visual culture into a surveillance culture.”<sup>25</sup>

The spatial-visual technics that undergirded the early modern invention of Nature are alive and kicking. In recent decades, they have decisively shaped modern environmentalism and the hegemonic conception of the biosphere. Let us take 1968's *Earthrise*, snapped on Christmas Eve from Apollo 8's lunar orbit. It quickly became “the most influential environmental photograph ever

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<sup>20</sup> J. Habermas, *Toward a Rational Society* (Cambridge, UK: Polity, 1987), 61-80.

<sup>21</sup> J.W. Moore, “The Capitalocene, Part II,” *Journal of Peasant Studies*, 45(2), 2018), 237–279.

<sup>22</sup> D. Cosgrove, “Prospect, Perspective and the Evolution of the Landscape Idea,” *Transactions of the Institute of British Geographers* 10(1), 1985), 45-62, quotation: 55.

<sup>23</sup> L. Mumford, *Technics and Civilization* (London: Routledge and Kegan Paul, 1934), 31.

<sup>24</sup> J.W. Moore, “Opiates of the Environmentalists?,” *Abstrakt* (November), no pagination.

<sup>25</sup> T. Elsaesser, “The Dimension of Depth and Objects Rushing Towards Us,” *eDIT Filmmaker's Magazine* 1 (2010), no pagination.

taken.”<sup>26</sup> Four years later, again just before Christmas, NASA released the *Blue Marble*, this time taken from Apollo 17’s Earth orbit. These images are conventionally linked to the birth of new environmental consciousness and to the (allegedly) spontaneous origins of modern environmentalism with the first Earth Day (1970). There’s no evidence for the connection, breathlessly repeated by mainstream media and eco-luminaries like Al Gore. But the two iconic images were rapidly seized upon by Anglophonic media, interested in *anything* that would redirect the public’s attention away from ecocide in Vietnam, national liberation struggles, campus revolts, and urban riots. Almost immediately, *Earthrise* and *Blue Marble* adorned corporate offices and the covers of major magazines. Grassroots and corporate environmentalists in the early 1970s agreed: *Earthrise* and *Blue Marble* captured the essence of a fragile oasis, encouraged a far-reaching holism, and created a new era of concern for the Earth. Today, *Blue Marble* hangs in Al Gore’s office as he coordinates a venture capitalist firm to solve the climate crisis.

The visual iconography of mainstream environmentalism masks something much darker. *Earthrise* and *Blue Marble* are among the signal results of the American scientific-military-industrial complex, indelibly linked to the nuclear Armageddon to which Paul and Anne Ehrlich gestured in 1968’s *The Population Bomb*. It’s easy to miss the geopolitics of Whole Earth imagery: one that represents the imperial gaze and planetary surveillance. The infrastructure of nuclear doomsday was visually transmogrified into an image of peace, love and harmony. As ever, the Environmental Imaginary scrubs away the pain and violence of imperialism and the Cheap Nature it reproduces. Environmental problems became problems of management and technology, not modernity’s contradictions of power, profit and life. In the Seventies, this was narrated as the challenge of Spaceship Earth. Today, it is the Anthropocene. Old wine. New bottles.

From *Earthrise* and *Blue Marble* to the Anthropocene, the hegemonic Environmental Imaginary has been remarkably consistent. Its mutually reinforcing themes include: humanity rather than capitalism as the prime mover; a shallow historicism that privileges machine and resource fetishism; claims that “saving nature” is above politics; consumer sovereignty; populationism; anti-communism; sustainable development abstracted from the relations of class and empire; and planetary management, now called *stewardship*.

A radical alternative recognizes that the web of life brooks no neat and tidy separations, not between Society and Nature; not between inside and outside visualizations. The climate crisis is – and is not at the same time – beyond us, within us, in between us, all within capitalism’s situated geohistories. To know and act upon these realities in radical fashion requires a revolution in our ways of seeing, knowing, and enacting the human place in the web of life.

What hope, and what place, for a *radical* visual culture? This is fundamental to that revolutionary reimagining of planetary justice. Radical imaging and the radical imagination are intimately bound. The challenge to modernity’s

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<sup>26</sup> Photographer Galen Rowell, in R. Sullivan, ed., *Life: 100 photographs that changed the world* (New York, NY: Time, 2003), 172.



ocularcentrism is not blindness but the dialectical challenge to its God trick, linked to the Civilizing Project, the endless accumulation of capital, and Promethean fantasies of dominating the web of life. These challenges can lay bare capitalism's real relations, its destructive productivism, its tendency to turn the Blue Marble into a sacrifice zone.<sup>27</sup> In so doing, we may illuminate the violent contradictions of capital's biospheric dictatorship, and navigate the turbulent waters of revolutionary transition: one led by the "associated producers" (and reproducers!) in the web of life.

Figure 1



[https://commons.wikimedia.org/wiki/File:Native\\_woman\\_kills\\_sailor\\_on\\_Vespucci%27s\\_third\\_voyage.jpg](https://commons.wikimedia.org/wiki/File:Native_woman_kills_sailor_on_Vespucci%27s_third_voyage.jpg)

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<sup>27</sup> J.W. Moore, "Waste in the Limits to Capital: How Capitalism Lays Waste to the Web of Life, and Why It Can't Stop," *Emancipations* 2(1, 2022), 1-45

Figure 2

