

Surviving the Globe

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▶ To cite this version:

Gene Ray. Surviving the Globe: An Introduction to Planetary Politics. Searccch, 2024, 1 (1), pp.30-47. halshs-04477337

HAL Id: halshs-04477337 https://shs.hal.science/halshs-04477337

Submitted on 26 Feb 2024

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Surviving the Globe:
An Introduction to Planetary Politics

Gene Ray

It looks as if much had been neglected in our Globe's systems of defense. We have not concerned ourselves with it until now and have gone about our daily work; but things that have been happening recently begin to trouble us.

- Franz Kafka, "An Old Manuscript" (détourned)

1.

Earth, globe, planet; earthly, global, planetary: each of these words, common enough yesterday, now seems newly tremulous with meaning and some queasy form of energy – as if relaying or heralding the onset of a deep metamorphosis.¹

More and more on people's lips and in their ears, these words are pronounced like questions and heard like passwords.

Where swifts once veered in airy loops and layered birdsong hailed the dawn, now worries wing the waiting skies.²

Talk fills up with strange concatenations: "heat dome," "atmospheric river" and "carbon bomb"; "generative adversarial network" (GAN), "zero-day exploit" and "autonomous armed system"; "hyperobject," "zoonotic spillover" and "Anthropocene unconscious."³

¹ This essay was commissioned by the CCC Research-based Master Programme at HEAD- Genève/Geneva University of Art and Design and was written for that pedagogical context. In addition to citation, paraphrase and explication, this text includes my own commentary, reflection and argumentation. The compositional principles are montage and parataxis. My disagreements with other authors are generally to be found in the footnotes. While noting and discussing the differences among the thinkers constellated here, I aim to work toward the common ground of a sharable politics. I thank the students of my 2022-2023 critical studies seminar for the many generative discussions reflected in this text.

² Agricultural pesticides are driving a rapid decline in bird populations. Swifts are one of the most effected species. For the numbers, see Damien Gayle, "Intensive Farming Is Biggest Cause of Bird Decline in Europe, Study Says," *The Guardian*, 15 May 2023; https://www.theguardian.com/environment/2023/may/15/intensive-farming-is-biggest-cause-of-bird-decline-in-europe-study-says.

³ This strange impressionistic poetry sketches the current state of play with regard to extreme weather, the weaponized techno-infosphere, and everyday shocks to psycho-social accommodation. I thank Alex Gence for teaching me about GANs. "Zero-day exploit" is a cyberattack that gains access to a smartphone or other

But also: "vibrant materialism," "symbiogenesis" and "multispecies worldmaking"; "water protectors," "ZADs" (zones-to-defend) and "Extinction Rebellion"; "latent commons," "convivial technology" and "survivance."

"What we call progress is this storm."5

"In a rapidly warming world, the room for any modernist theodicy is rapidly disappearing."6

2.

The term "planetary" is now used widely by scholars, artists and researchers of the contemporary. It may even be passing into everyday language and politics, at least in English.

In a loose sense, "planetary" is often used today to evoke the heating and climate chaos associated with the dumping of greenhouse gases into the atmosphere – as in, "planetary meltdown" (an apt enough phrase, considering the mutation and loss of glaciers, ice cover and permafrost).

networked device in order to covertly install malware. On the new market in cyberwarfare weapons and its destructive effects on democracy and critical journalism, see Laurent Richard and Sandrine Rigaud, *Pegasus: The Story of the World's Most Dangerous Spyware* (London: Macmillan, 2023). "Hyperobject" comes from Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013). "Anthropocene unconscious" is the concept of Mark Bould, *The Anthropocene Unconscious: Climate, Catastrophe, Culture* (London: Verso, 2021).

⁴ "Vibrant materialism" comes from Jane Bennet, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010). "Convivial technology" comes from Ivan D. Illich, *Tools for Conviviality* (London: Calder & Boyars, 1973), reworked in Andreas Vetter, "The Matrix of Convivial Technology – Assessing Technologies for Degrowth." *Journal of Cleaner Production* 197 (October 2018): 1778-1786. Most of the other terms and phrases will be discussed below.

⁵ Walter Benjamin, "On the Concept of History" [1940], in *Selected Writings, Volume 4, 1938-1940*, eds. Howard Eiland and Michael W. Jennings and trans. Edmund Jephcott et al. (Cambridge, MA: Belknap Press of Harvard University Press, 2003), p. 392, Benjamin's italics.

⁶ Andreas Malm, *The Progress of this Storm: Nature and Society in a Warming World* (London: Verso: 2018), p. 229. There is a lot packed into this sentence. As the title of his book (which puns on the line from Walter Benjamin) already announces, Malm's critical climate manifesto draws deeply on Frankfurt Institute critiques of instrumental rationality, universal history and automatic progress. Recalling Enlightenment debates about the meaning of evil, the term "theodicy" refers to any *tout est bien* argument that rationally justifies natural or social disaster as merely an unfortunate moment within a larger unfolding history of progress. In a key passage of *Negative Dialectics*, Adorno argued that Auschwitz was already the unanswerable refutation of all theodicies. It is to Adorno's "After Auschwitz" meditations that Malm refers in his conclusion (p. 223): "[G]lobal warming is certainly not the sole disaster of the future in the making. Being of such magnitude, the warming would be unimaginable as a deviation from some generally wholesome trajectory. In that sense, it deserves a place. . . similar to that of Auschwitz in the writing of Adorno: as a catastrophe in which society as a whole discharges itself." The relevant passage is in Adorno, *Negative Dialectics*, trans. E.B. Ashton (New York: Continuum, 1995 [1966]), p. 361. For a full interpretation of the passage, see my *Terror and the Sublime in Art and Critical Theory* (New York: Palgrave Macmillan, 2005), pp. 26-31.

Dipesh Chakrabarty proposes a more precise concept of the "planetary," which he elaborates in contrast to the "global." Chakrabarty's distinction between *global* and *planetary* resonates with the arguments of his interlocutor, Bruno Latour, and – differently – with those of Latour's critical readers Donna Haraway and Anna Tsing.⁸

"The contestations must matter; it's not a choice, it's a necessity."9

In the old days, people lived on an *earth*, in local worlds shared with other beings; this sharing was acknowledged through "imagined and vivid intricacies of kinship." ¹⁰

But the local worlds of kin, ancestors and co-produced solidities were opened to plunder and seemed to melt into air when the earth was enclosed by a *globe*, in a 500-year project called "capitalist modernity."

3.

For Chakrabarty, who writes as an historian and scholar of postcolonial studies, the *global* implies "intensive capitalist globalization," science and technology, processes of modernization, and narratives of development and progress: "uneven capitalist development, inflected by class, gender and race." ¹¹

The *global* is animated by the dreams, aspirations and conflicts of a plural and uneven modernity: peopled by moderns who gave up their old earth willingly – or had their worlds torn from them by force.

The *planetary*, by contrast, introduces a vertiginous change of scale that opens up across deep time.

The *planetary*, for Chakrabarty, is the object of Earth System Science, a research community constituted by the urgent need to understand "global warming" and climate change.

⁷ Dipesh Chakrabarty, *The Climate of History in a Planetary Age* (Chicago: University of Chicago Press, 2021).

⁸ Especially in Bruno Latour, *Down to Earth: Politics in the New Climatic Regime*, trans. Catherine Porter (Cambridge: Polity Press, 2018 [2017]); Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2015); and Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015).

⁹ Haraway, *Staying with the Trouble*, p. 73.

¹⁰ The quoted phrase is from T.J. Clark, "For a Left with No Future," *New Left Review*, 74 (March-April 2012), p. 70; reprinted with modifications in *Heaven on Earth: Painting and the Life to Come* (London: Thames & Hudson, 2018), p. 257. The passage in which it appears, in which Clark discusses modernity's attack on tradition, is one Clark deemed important enough to rewrite and reprint numerous times; it first appeared (without the quoted phrase) in *Farewell to an Idea: Episodes from a History of Modernism* (New Haven: Yale University Press), p. 7; and after that (with it) in Retort (lain Boal, T.J. Clark, Joseph Matthews and Michael Watts), *Afflicted Powers: Capital and Spectacle in a New Age of War* (London: Verso, 2005), p. 177.

¹¹ Chakrabarty, The Climate of History, pp. 5, 4.

The macro-perspective of the *planetary* encompasses billions of planets, stars and galaxies, across billions of lightyears of space-time: it sees the earth in this immensity, as one planet among many.¹²

Global and planetary denote what Chakrabarty calls different "regimes of historicity." 13

The *global* is concerned with "the history of the globe made by the logics of empires, capital, and technology": or, better, with the plural histories of the globe, for there is no one modernity, experienced and lived in the same way by all people.¹⁴

For the *global*, the social reproduction of capitalist relations reappears as the new problem of "sustainability": the challenge of sustaining modernity, economic development (growth) and economic profits.

The *planetary*, taking a vastly longer and impersonal view, is concerned with the formation and state-changes of planets: "the history of the planet, the history of life on the planet." ¹⁵

The *planetary* view looks beyond the sustainability of any modern world or "civilization," in order to investigate "habitability," or the conditions for life on planets, *as such*.

"Habitability does not reference humans.... The question at the center of the habitability problem is not what life is or how it is managed in the interest of power [i.e., "biopolitics"] but rather what makes a planet friendly to the continuous existence of complex life." ¹⁶

As the histories and politics of modernity, the *global* is anthropocentric, but the *planetary* is indifferent to humans and their projects: "The *global* is a humanocentric construction; the *planet* decenters the human."¹⁷

"This anthropocentric idea of sustainability dominated the twentieth century and continues beyond it as a mantra of green capitalism." ¹⁸

But the planet doesn't care whether modernity sustains itself or whether humans disappear altogether – and this is what some have called the "shock of the Anthropocene." ¹⁹

For Chakrabarty, the *planetary* turn is not necessarily or simply an abandonment of the *global*.

¹² Ibid., p. 166.

¹³ Ibid., p. 96.

¹⁴ Ibid., p. 68. See also Amitav Ghosh, *The Nutmeg's Curse: Parables for a Planet in Crisis* (London: John Murray, 2021).

¹⁵ Ibid.

¹⁶ Ibid., p. 83, my italics.

¹⁷ Ibid. p. 19, my italics.

¹⁸ Ibid., p. 82.

¹⁹ As in the title of Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us*, trans. David Fernbach (London: Verso 2017 [2013]). See also Chakrabarty, *The Climate of History*, p. 192.

Rather, the *global* needs to change, by learning from the ordeal of its exposure to the *planetary*: the challenge of the *planetary* is one of *politically translating* between these two registers.

"The humanocentric idea of sustainability will have to speak to the planet-centric idea of habitability." ²⁰

The key implication is: the protection of biodiversity must act as a necessary limit on modernization. Inescapably and existentially, the economic growth imperative must now give way to the more-than-human standard of a flourishing biosphere.

(The open questions, already urgent, are: Is capitalism capable of such "self-limitation"? Who will decide if it is or isn't, and when? If it is structurally incapable of self-limitation, then system change becomes unavoidably imperative.)²¹

Benjaminian questions: Will capitalism die a natural death? In dying, what else will it kill? If, instead, the task is still to bring about the "real state of emergency," what recomposed collective subject or new assemblage of agencies will do it?²²

Closely related questions emerge around the modernist modes of technology development driven by state and capital: can the globe (modernity) survive its own disruptive technologies and weapons systems? Can new technologies overcome or bypass the limits imposed on capitalist energetics by the laws of thermodynamics and entropy? Will new technologies emerge that can intervene in the crisis of biodiversity loss?²³

²⁰ Chakrabarty, *The Climate of History*, p. 204. Chakrabarty ends the last chapter of his book with three principles for a just and "civilized" future (pp. 203-204): "(a) all human lives would need to be protected and their flourishing enabled and ensured; (b) biodiversity – which makes for a habitable planet – would have to be protected; and (c) processes of withdrawal from the current human-dominated order of the earth would need to be initiated and advanced. In other words, the humanocentric idea of sustainability will have to speak to the planet-centric idea of habitability." These careful and diplomatic formulations are fully consistent with the most important conclusions of Latour, Haraway and Tsing.

²¹ Numerous critics of capitalism, from Marx and Rosa Luxemburg to Jason W. Moore and Kohei Saito, have concluded that the immanent logics and tendencies of capitalism rule out self-limitation. For a superb and concise social sciences analysis of capitalism in this regard (and one of the most pertinent discussions of capitalism and planetary meltdown available today), see Ulrich Brand, Barbara Muraca, Éric Pineault, Marlyne Sahakian, Anke Schaffartzik, Andreas Novy, Christoph Streissler, Helmut Haberl, Viviana Asara, Kristina Dietz, Miriam Lang, Ashish Kothari, Tone Smith, Clive Spash, Alina Brad, Melanie Pichler, Christina Plank, Giorgos Velegrakis, Thomas Jahn, Angela Carter, Qingzhi Huan, Giorgos Kallis, Joan Martínez Alier, Gabriel Riva, Vishwas Satgar, Emiliano Teran Mantovani, Michelle Williams, Markus Wissen and Christoph Görg, "From Planetary to Societal Boundaries: An Argument for Collectively Defined Self-Limitation," *Sustainability: Science, Practice and Policy*, vol. 17, no. 1 (2021): 265-292.

²² The questions are not new ones; they are already explicit in Benjamin's last essay "On the Concept of History" and only reappear now with new urgency. See also note 6, above, and Andreas Malm's gloss in *The Progress of this Storm*, p. 230: "Benjamin expressed 'the experience of our generation: that capitalism will not die a natural death'. Whether it would survive survival remains an open question."

²³ These *planetary* questions point to *political predicaments* rather than "solvable" problems. While the indicative evidence suggests that deep social transformations are necessary, these questions remain open since much depends on what collectivities of people do or fail to do now, in the present. The laws of thermodynamics aside (they are either in force or they are not), the most important and urgent questions are ultimately *political* ones that will be answered in *practice*. I reject the technocratic, modernist assumption that *political* questions can be enumerated as problems and then definitively answered by calculation, computation or AI. A paradigm

How does the *global* project of modernization find itself in such a dire crisis? How did the smartphone become an everyday, locked-in weapon of species extinction?²⁴

The globe "woke up" the planet, which in turn "changes everything": mediated by the planet, the effects of modernization threaten to bring this project to an end.

"They would need several planets; they have only one."25

(Which is to say: "Cheap Nature" is coming to an end.)26

Under the pressure of the *planetary*, all the modernist terms of globalization as a 500-year project became open to doubt and question: that would be one way of putting it, shared by Chakrabarty and Latour.²⁷

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shift organized around new questions may enable the continuation of scientific research, as Thomas Kuhn proposed; but it may be that imposed and enforced political impasses can only be broken by a social rupture. See the classic critique of capitalist technology that opens Max Horkheimer and Theodor W. Adorno, Dialectic of Enlightenment: Philosophical Fragments, trans. Edmund Jephcott (Stanford: Stanford University Press, 2002 [1944]); as well as lain Boal and Gene Ray, "Through the Lens, Darkly," in Camera Atomica, ed. John O'Brian (Toronto: Art Gallery of Ontario; and London: Black Dog Publishing, 2015); Alf Hornborg, Nature, Society and Justice in the Anthropocene: Unravelling the Money-Energy-Technology Complex (Cambridge: Cambridge University Press, 2018); Achille Mbembe, The Earthly Community: Reflections on the Last Utopia, trans. Steven Corcoran (Rotterdam: V2 Publishing, 2022); David F. Noble, America by Design: Science, Technology and the Rise of Corporate Capitalism (New York: Knopf, 2013); and Vetter, "The Matrix of Convivial Technology." ²⁴ And what will happen when everyone comes to realize this? See the trenchant critique of Jonathan Crary, Scorched Earth: Beyond the Digital Age to a Post-Capitalist World (London: Verso, 2022), p. 1: "If there is to be a livable and shared future on our planet, it will be a future offline, uncoupled from the world-destroying systems and operations of 24/7 capitalism. In whatever endures of the world, the grid, as we live in it today, will have become a fractured and peripheral part of the ruins on which new communities and interhuman projects may possibly arise. If we're fortunate, a short-lived digital age will have been overtaken by a hybrid material culture based on both old and new ways of living and subsisting cooperatively. Now, amid intensifying social and ecological breakdown, there is a growing realization that daily life overshadowed on every level by the internet complex has crossed a threshold of irreparability and toxicity. More and more people know or sense this, as they silently experience its damaging consequences." See also the equally scathing repudiation of internet culture by Geert Lovink, who calls for an exodus from social media, the disautonomization of everything, and a general strike on optimization in Extinction Internet: Our Inconvenient Truth Moment (Amsterdam: Institute of Network Cultures, 2022).

²⁵ Latour, *Down to Earth*, p. 5. Latour is remarking the end of COP21 in Paris. On December 12, 2015, "all the signatory countries, even as they were applauding the success of the improbable agreement, realized with alarm that, if they all went ahead according to the terms of their respective modernization plans, there would be no planet compatible with their hopes for development."

²⁶ The concept of "Cheap Nature," enlisted into the co-production of capitalism through exploited labor, extracted resources and waste dumping, comes from Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015). See also Raj Patel and Jason W. Moore, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (London: Verso, 2018). ²⁷ "All Monuments Must Fall" would be another, more consequential way of saying the same thing in 2020 – from within the compounding crises and layered intersections of racialized police murder, intensified planetary meltdown and the deadly Covid-19 pandemic. See the texts collected in "ISSUE #8: All Monuments Must Fall:

The activity of capitalist modernity has had effects on earth, and now the awakened planet, an "actor" with agencies that the *global* did not foresee and do not control, is "reacting" to the globe's actions.²⁸

The Earth System consequences – driven by heating but not limited to climate chaos – do not just threaten to terminate *globalization*; more, the accelerating loss of biodiversity and narrowing evolutionary bottleneck threaten a sixth mass extinction event – a *planetary* reorganization of life that will not necessarily keep a place for humans.²⁹

For Latour, the political problem is how to inspire a desertion of the "Modernization Front" and an evacuation of the "Global," without falling back into re-enactments of (what for him is) an unrecoverable "Local."³⁰

His answer: through a migration to an emergent third political "attractor" that he names the "Terrestrial." ³¹

Episodes and Counterimages from a Present History of Iconoclasm," ISSUE, Journal of Art & Design, HEAD-Genève, no. 8 (8 June 2021), https://issue-journal.ch/focus-summaries/issue-8-all-monuments-must-fall/.

for." Malm, The Progress of this Storm, p. 118.

²⁸ This is the gist of the problem, in Latour's terms. See *Down to Earth*, p. 84: "The earth system reacts henceforth to your action in such a way that you no longer have a stable and indifferent framework in which to lodge your desires for modernization." See also Andreas Malm's critique of Latour's Actor Network Theory and its flattening of the concept of agency in *The Progress of this Storm*, chapter 2.

²⁹ Rapid planetary heating, caused by fossil fuel combustion and greenhouse gas dumping, directly stresses the biosphere, but other knock-on effects, such as climate chaos and ocean acidification, compound the negative impacts on biodiversity. Add to these the other negative biospheric impacts of capitalist modernity: chemical, pharmaceutical, radiation and plastics pollution and the resulting toxification of bodies; habitat destruction and deforestation; noise and light pollution; mining and the large-scale alteration of lands and watersheds; the draw-down of fossil water; and the devastating ecological effects of a globalized industrial food system based on chemical monoculture.

³⁰ Latour's political analysis is plotted in attractive diagrams included in *Down to Earth*, but this diagrammatic politics is not without problems. Tired of arguments about capitalism and class, he insists that the choice between terrestrial inhabitation and now-delusional modernization renders obsolete the old divides between Left and Right. I doubt that the political effects of these incompatible ways of world-making have ceased to be relevant or operative within the choices of planetary politics: the inhabitation/modernization split runs through both Left and Right, but this hardly makes these different worlds identical or the differences between them trivial. Latour also insists that the old inhabited earth (now degraded to the "Local") did not survive modernization and is beyond recovery or repair; for him, all defense of the local against the modern is thereby reduced to some form of fascist "blood and soil." These terms do not allow understanding of (or alliance with) Indigenous water and land defenders (or ZADists either), whose struggles are the very frontlines of planetary politics. Despite the rhetorical gestures toward these struggles, it is clear that Latour considers them lures for reactionary nostalgia and other "mistakes" of the Localists. See for example, Latour, Down to Earth, pp. 7-8, 44 and 53-55; on this point, see also Anna Tsing, Mushroom at the End of the World, p. 305, note 10. ³¹ It is clear that the Terrestrial position is in deep political affinity with the more-than-human inhabitation practices called for by Haraway and Tsing. But Latour's diagrammatic derivation of this position recalls the triangulations of Third Way politics that discredited so many parties on the Left and contributed to the long bipartisan consensus supporting "no alternative" neoliberal economics in the 1990s. The Terrestrial is compelling because it reflects a viable response to planetary meltdown, not because a vector can be drawn that cuts the Local-Global line at a 90-degree angle. The reduction of politics to geometry is generally disastrous. Meanwhile, the pronounced "capitalist realism," to use Mark Fisher's phrase, of Latour's politics led an exasperated Andreas Malm to exclaim, "Less of Latour, more of Lenin: that is what the warming condition calls

The Terrestrial is attracting all those who are ready to come "down to earth" and learn to live on the actual planet: those who grasp that the Globe has reached a dead end and who refuse the injunction to keep modernizing, but also those who want *to land* but reject the borders, racialized identities, patrimonies and "inauthentic authenticities" that plague imaginaries of the Local.³²

If the Terrestrial attractor can become a *planetary* political *actor*, Latour wagers, then maybe the race to extinction can be derailed.

Latour does not believe there is any political potential in the *planetary* of billions of galaxies and deep time: "The Terrestrial, for its part, does not allow such detachment." ³³ He argues instead for a *planetary* focused resolutely on the singular planet that is actually shared.

For Latour, both the Global and Local are now untenable: the Global, because the project of modernization, lacking the resources of numerous additional planets, is finished; and the Local, because the old worlds are truly gone and persist only as delusions of Making the Nation Great Again – behind walls.³⁴

Latour's Terrestrial is a *planetary* perspective oriented toward habitability and organized for inhabitation with non-humans: this implies a deep socio-ecological transformation, but one that, Latour hopes, could hybridize from the best, rather than the worst, of the Global and Local attractors.³⁵

5.

Another way, still *planetary* rather than *global*, to tell the story politically would be to begin with an emerging new paradigm in biology: "symbiogenesis," the thesis that the conditions of life are "co-produced" by cooperating living beings and geological materialities.

³² Latour, *Down to Earth*, p. 53.

³³ Ibid., p. 72. Latour parts here from Chakrabarty's account of the planetary; see also Latour's elaboration of this point on pp. 73-74.

³⁴ Ibid., p. 35. Latour's recasting of the Local as the barricades of ethnonationalism may seem insightful, but on a deeper reading risks conflating local resistance to modernization projects with ethnonationalist displacements of class into race in anti-migration politics. The convergence of the two is not automatic: it must be constructed politically. Again, Latour dismisses too quickly the political stakes and agents of the local. I imagine his reply to such criticism would have been: "the good fighters of the Local will already have been recruited to the Terrestrial." But where do the Terrestrials actually live? In some situated and politically inflected local context, and *there* Latour's terms risk abandoning them to the neo-fascists or driving them into that fold. That said, on the level of the nation-state, there is little doubt that Making the Nation Great Again has become a standard political deflection from *planetary* challenges: this mobilization of nostalgia, resentment and fear is officially expressed in the USA, China, Russia, India and many other nations.

³⁵ As already noted, Latour calls for end to modernization but avoids the decisive role of capitalism and the problem of its limitation or abolition. I agree fully with Andreas Malm, that this avoidance is politically invalidating. For Malm, it results from Latour's flattening distribution of agency and general dissolution of differences in his version of "new materialism," moves that are revealingly condensed in his deployments of "hybridity." See Malm, *The Progress of this Storm*, chapter 2 and 140-149.

This reinterpretation of evolution emphasizes the role of symbiosis and destabilizes established notions of species and individuation: the basic unit becomes the "holobiont, an organism plus its persistent communities of [microbial] symbionts."³⁶

"Symbiosis is the way of life on earth; we are all holobionts by birth." 37

"Human bodies are and contain a plurality of ecosystems. . . . The volume of the microbial organisms in our bodies is about the same as the volume of our brain, and the metabolic activity of those microbes is about equivalent to that of our liver." 38

In this *planetary* reorientation, human individuals are radically reconceived as multi-species assemblages; the borders of "the human" become fuzzy, porous and categorically impure.³⁹

This is the more-than-human materialism of the *planetary* proposed by Haraway, Tsing and their network of interlocutors, which shares much with the accounts of Latour and Chakrabarty – but places the accents differently.⁴⁰

"Species are not always the right units for telling the life of the forest. The term 'multispecies' is only a stand-in for moving beyond human exceptionalism." 41

For Haraway and Tsing, the *global* (capitalist modernity) has disturbed the patterns of this complexly entangled co-production of life, so that the challenge of the *planetary* now becomes: *how to survive this disturbance with biodiversity intact?*

³⁶ Scott F. Gilbert, "Holobiont by Birth: Multilineage Individuals as the Concretion of Cooperative Processes," in *Arts of Living on a Damaged Planet: Monsters of the Anthropocene*, eds. Anna Tsing, Heather Swanson, Elaine Gan and Nils Bubandt (Minneapolis: University of Minnesota Press, 2017), p. 21.

³⁷ Ibid., p. 84. The whole startling passage that concludes Gilbert's essay is worth quoting in full: "Symbiosis is the strategy that supports life on earth. Rhizomal bacteria interact with legumes, allowing nitrogen fixation, the basis of terrestrial life. The coral reef ecosystem and the tidal sea grass ecosystem depend on the symbiosis of corals and clams. These major symbiotic webs rule the planet, and within these big symbioses are the smaller symbiotic webs of things we call organisms. And within organisms are the products of even more ancient symbioses called cells, and the products of other ancient symbioses, which we call genomes. Symbiosis is the way of life on earth; we are all holobionts by birth."

³⁸ Ibid., p. 75: "We have about 160 major species of bacteria in our bodies, and they all form complex ecosystems."

³⁹ Ibid. And continuing on the same page (Gilbert's italics): "The microbiome *is* another organ; so we are not *anatomically* individuals at all." Gilbert proceeds in this essay to show how symbiogenesis problematizes all of the classic definitions of animal individuality. Problematizing the species borders does not, however, make them disappear or mean they now are irrelevant. The challenge is to think the complexity without trashing the real differences (Adorno's "non-identical"). I doubt that a politics can be read off directly from the insights of symbiogenesis, but the prevalence of symbiosis is at least a strong antidote to social Darwinism and capitalism's ideology of competition – and could inspire a re-conception of the human place on the planet.

⁴⁰ Haraway and Tsing's networks are well represented in Anna Tsing, Heather Swanson, Elaine Gan and Nils Bubandt (eds.), *Arts of Living on a Damaged Planet: Monsters of the Anthropocene/Ghosts of the Anthropocene*, eds. (Minneapolis: University of Minnesota Press, 2017).

⁴¹ Tsing, *Mushroom at the End of the World*, p. 162.

In biospheric terms, disturbance is normal: no ecosystem is unchanging, and the Holocene climate and biodiversity, now being lost day by day, should not be thought of as an ideal or steady state ecology.⁴²

Not all disturbance is ruinous: some disturbances to local ecosystems can stimulate biodiversity.⁴³

But the *global* disturbance of accelerating modernization *is* ruinous and is impacting the conditions of life and habitability on a *planetary* scale: globalized techno-capitalism is reducing the biospheric commons – the inherited Holocene biodiversity – and has initiated accelerating species extinction.⁴⁴

This ruination concerns all living beings because none can live except through the biospheric web of co-production; the loss of diverse kinds of holobiontic bodies is a loss of co-made worlds.⁴⁵

Which is to say: this large-scale disturbance is traumatically ruinous.

More-than-human grieving and mourning is already needed, and from now on these feeling-structures and processes will not be separable from political activism; surely art can contribute to such processes and such activism.⁴⁶

⁴² The Holocene epoch is the name geologists have given to the last 11,650 years of relatively stable and benign climate on earth. Relatively stable does not mean undisturbed. The disturbance of the *global* is the one that will count now, however, as it triggers the planetary reactions Latour calls "the New Climatic Regime" and many biologists are calling "the sixth mass extinction."

⁴³ Tsing, Mushroom at the End of the World, pp. 160-161 and 186-187.

⁴⁴ On extinction, see Gerardo Ceballos, Paul R. Ehrlich, and Rodolfo Dirzo, "Biological Annihilation via the Ongoing Sixth Mass Extinction Signaled by Vertebrate Population Losses and Declines," Proceedings of the National Academy of Sciences 114, no. 30 (July 25, 2017), https://doi.org/10.1073/pnas.1704949114; and Elizabeth Kolbert, The Sixth Extinction: An Unnatural History (London: Bloomsbury, 2014). On the political implications, see Ashley Dawson, Extinction: A Radical History (New York: OR Books, 2016); and Elizabeth A. Povinelli, Geontologies: A Requiem to Late Liberalism (Durham: Duke University Press, 2016), especially pp. 8-9. 45 In the phrase "holobiontic bodies," I am letting Gilbert's symbiogenesis resonate with Eduardo Viveiros de Castro's proposition that species, in some Indigenous cosmologies, are conceived as different kinds of bodies (each kind of body in effect experiencing a different kind of world and practicing a different mode of worlding); and with Thom Van Dooren's conclusion that the millions of years of experience, cooperation, endurance, survival strategies and co-evolution condensed in every species should be considered a precious transgenerational "way of life" - or in my paraphrase, a culture or world. I am using "culture" here loosely and openly, to indicate practices of inhabitation and reproductive labor, rather than an exclusively human possession centered on symbolic language. Viveiros de Castro, Cannibal Metaphysics: For a Post-Structural Anthropology, trans. Peter Skafish (Minneapolis: Univocal, 2014), pp. 71-73; and Thom van Dooren, Flight Ways: Life and Loss at the Edge of Extinction (New York: University of Columbia Press, 2014), pp. 7-13 ⁴⁶ See Isabelle Fremeaux and Jay Jordan, We Are 'Nature' Defending Itself: Entangling Art, Activism and Autonomous Zones (London: Pluto Press, 2021), pp. 118-119; Haraway, Staying with the Trouble, pp. 38-39; and Thom van Dooren, Flight Ways, pp. 124-144.

"Anna Tsing argues that the Holocene was, and still is in some places, the long period when refugia, places of refuge, still existed, even abounded, to sustain re-worlding in rich cultural and biological diversity." ⁴⁷

Catastrophic planetary extinction is not inevitable, even now: other worlds and modes of worldmaking are possible.

Growing out of and supplementing the political struggles are the modest reparative practices, the more-than-human solidarities, mutual accommodations and co-productions that can build refuges and support sanctuaries for "Holocene Resurgence." 48

"Resurgence is the work of many organisms, negotiating across differences, to forge assemblages of multispecies livability in the midst of disturbance." 49

Haraway insists on "staying with the trouble," without indulging in apocalyptic defeatism or fantasies of a rescuing techno-fix: the co-making of life aligns with a feminist ethico-politics of care, to energize lively "arts of living on a damaged planet."

6.

As the planet continues to heat under *global* business-as-usual, people and their symbionts, insects, animals, fish, trees and plants, reefs and forests, holobionts and microbes of all kinds, as well as local climates, are forced into movement; as the Holocene recedes, displacement and diaspora are becoming a general condition.⁵⁰

"Right now, the earth is full of refugees, human and not, without refuge."51

 $^{^{47}}$ Haraway, *Staying with the Trouble*, p. 192, note 28. The passage is also reproduced on p. 100, but there it is missing the key phrase "and still is in some places," which makes the political opening.

⁴⁸ The reparative practices are not separate from traditional political practices, but rather are new (eco-feminist) forms of the political that become possible when social reproduction is reconceived more expansively, as socioecological reproduction. See Silvia Federici, *Re-enchanting the World: Feminism and the Politics of the Commons* (Oakland: PM Press, 2019); and Haraway, *Staying with the Trouble*.

⁴⁹ Anna Tsing, "A Threat to Holocene Resurgence Is a Threat to Livability" (unpublished manuscript, 2015), quoted in Haraway, *Staying with the Trouble*, p. 193, note 34, my italics. See also Tsing, *The Mushroom at the End of the World*, chapter 13, "Resurgence," pp. 179-190. Tsing's "Holocene Resurgence" aligns with projects of rewilding, reforestation and bioreserves, but at smaller, more situated local scales – and including the local people.

⁵⁰ See Gene Ray, "Diasporas of the So-Called Anthropocene: Notes in the Margins of 'The Anthropocene Atlas of Geneva'," *ISSUE, Journal of Art & Design, HEAD-Genève*, no. 2 (June 24, 2019), https://issue-journal.ch/focus-posts/diasporas-of-the-so-called-anthropocene/.

⁵¹ Haraway, *Staying with the Trouble*, p. 100. For some readers, this sentence may seem to rub against the grain of the autonomy tendency of migration activism. To be sure, discussions about the possibilities and strategies of a *planetary* migration politics are open and evolving. But it is clear that migration is not a separable issue, and that mobility justice needs to be thought together with climate justice. See Mimi Sheller, *Mobility Justice: The Politics of Movement in an Age of Extremes* (London: Verso, 2018).

Right now, if human and more-than-human refuges are needed, collaborations from below can contribute to their making: Tsing's notion of "latent commons" models the attentive, curious and committed learning and doing that can contribute to the co-production of multispecies refuge and resurgence.⁵²

Latent commons are more-than-human; "And humans are never fully in control."53

This means: muddles, learning processes, bricolage and assemblage, incremental improvements in attunement, "Brown's political listening and related arts of noticing." ⁵⁴

"To listen politically is to detect the traces of not-yet-articulated common agendas." 55

But, to "make common cause with other living beings," listening is not enough: "other forms of awareness will have to kick in." ⁵⁶

"We need many kinds of alertness to spot potential allies."57

But, however caring, *latent commons* cannot hope to harmonize all antagonisms across species. ⁵⁸

"[T]he lion will not lie down with the lamb. . . . Whole species lose out in some collaborations." ⁵⁹

"The best we can do is to aim for 'good-enough' worlds, where 'good-enough' is always imperfect and under revision." 60

⁵² Tsing, *The Mushroom at the End of the World*, p. 255 (my italics): "[Latent commons] are *latent* in two senses: first, while ubiquitous, we rarely notice them, and, second, they are undeveloped. They bubble with unrealized possibilities: they are elusive. They are what we hear in [precarious labor organizer Beverly] Brown's political listening and related arts of noticing. They require stretching concepts of the commons."

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid., p. 254.

⁵⁶ Ibid.

⁵⁷ Ibid. Here the wording makes clear that the attention, alertness and learning Tsing calls for are *human* (actions and practices for and by human agents) even if the context of co-production is more than human.
⁵⁸ Human projects of social justice, such as socialism or communism, traditionally aimed at abolishing structural inequalities and, with them, class antagonisms. Symbiogenesis emphasizes the necessary cooperation across species; but despite this cooperation, it is obvious that many species eat other species. These biological antagonisms, which shape ecologies and contribute to planetary equilibriums, cannot be eliminated; their abolition cannot tenably be a goal within human political projects. Class antagonism and biological antagonisms, then, are not identical and cannot be conflated. That said, the new imperative that has now emerged with the *planetary* is to support more-than-human mutuality and flourishing – and to increase these as far as possible. See also Emanuele Coccia, *The Life of Plants: A Metaphysics of Mixture*, trans. Dylan J. Montanari (Cambridge: Polity Press, 2019 [2017]); Timothy Morton, *Humankind: Solidarity with Nonhuman People* (London: Verso, 2017); Vandana Shiva, *Earth Democracy: Justice, Sustainability and Peace* (Berkeley: North Atlantic Books, 2005) and *Making Peace with the Earth* (London: Pluto Press, 2013); and Kate Soper, *What Is Nature?: Culture, Politics and the non-Human* (Oxford: Blackwell, 1995).

⁵⁹ Ibid., p. 255.

⁶⁰ Ibid.

Reconciliation, like balance, is a moving target: "Latent commons are those mutualist and non-antagonistic entanglements found within the play of this confusion." ⁶¹

The object of intense theoretical reflection over the last several decades, the concept of *the commons* and the political principle of *the common* have mapped out a zone of social construction that operates complexly between public and private, and between state and capitalist economy.⁶²

More than simply pools of resources held in common, *commons are mutualist associations* of direct producers.

Tsing's *latent commons* stretch this to: more-than-human mutualist associations (entanglements) of direct co-producers (makers of sympoiesis and re-worlding).⁶³

Latent commons resonate with Massimo de Angelis' notion of "commons ecologies": the resonance would be a *planetary* "commonisation." ⁶⁴

This would be one way to cultivate arts of "livability" in the "capitalist ruins": artists of livability are people who have found their ways *not to be paralyzed* in the face of biospheric, as well as human, loss and trauma.

Artists of livability are planetary first responders.

The possibilities of this third approach to the *planetary* have spurred and inspired many artists, as well as scientists, critical humanities researchers, rewilders, half-Earthers, agroecologists and permaculture practitioners.

⁶¹ Ibid, my italics. See also Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* (Minneapolis: Milkweed Editions, 2013), p. 92: "What I'm looking for, I suppose, is balance, and that is a moving target. Balance is not a passive resting place – it takes work, balancing the giving and the taking, the raking out and the putting in."

⁶² See Pierre Dardot and Christian Laval, *Common: On Revolution in the 21st Century*, trans. Matthew Maclellan (London: Bloomsbury Academic, 2021 [2014]); Massimo De Angelis, *Omnia Sunt Communia: On the Commons and the Transformation to Postcapitalism* (London: Zed, 2017); Silvia Federici, *Caliban and the Witch: Women, the Body and Primitive Accumulation* (Brooklyn: Autonomedia, 2004) and *Re-enchanting the World*; Fremeaux and Jordan, *We Are 'Nature' Defending Itself*; Michael Hardt and Antonio Negri, *Commonwealth* (Cambridge, MA: Belknap Press of Harvard University Press, 2009); Stefano Harney and Fred Moton, *The Undercommons: Fugitive Planning & Black Study* (New York: Minor Compositions, 2013); and Peter Linebaugh, *The Magna Carta Manifesto: Liberties and Commons for All* (Berkeley: University of California Press, 2008), and *Stop Thief! The Commons, Enclosures, and Resistance* (Oakland: PM Press, 2019). Among earlier works, see Elinor Ostrom's classic refutation of Garrett Hardin's 1968 "tragedy of the commons" thesis: Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990).

⁶³ Even if, to acknowledge Malm's critical point discussed in the notes above, the "co-producers" do not produce effects through modes of agency that are identical to human agency and therefore are only loosely analogous to intentionally directed human labor.

⁶⁴ For De Angelis, commons are social systems composed of three elements: common goods ("use values produced for a plurality"); the commoners who come together to produce those common goods; and the practices ("doing in common") by which they do so; commons systems can link together and scale up in "commons ecologies" of variable complexity. The transformative process of building commons ecologies is what De Angelis calls "commonisation." De Angelis, *Omnia Sunt Communia*, pp. 29, 23, 120 and 34. By "resonance" here I mean a unity in difference, an alignment that does not deny or refuse difference and dissonance.

These new *planetary commoners* join others – such as La Via Campesina, a network of 200 million peasants and small farmers building local food sovereignty through agroecology – who have long been engaged in defending and caring for the life of their worlds.

The prospect of more-than-human sympoietic practices has also opened pathways for what Haraway calls "art-science activisms" and "speculative fabulations" of many kinds: these align with streams of Afrofuturism and Indigenous speculative fiction.⁶⁵

Political listening suggests that a Terrestrial alternative to the Modernization Front has been quietly composing itself for some time – mostly below the radar and off the grid.⁶⁶

7.

"Survivance" is Chippewa novelist and literary critic Gerald Vizenor's name for the coping of cultural genocide through the Indigenous resistance of trickster irony.⁶⁷

Worlds can be lost: they can be overwhelmed and silenced by a hostile dominant culture – or driven to extinction by violence and terror.⁶⁸

If *survivance*, rather than mere survival, is a form of *re-worlding* in the aftermath of the loss of a world, then perhaps survivance is a learnable skill and comportment for all those who are living through the shared, ongoing loss of the Holocene.⁶⁹

⁶⁵ Art-inflected futurisms are working with and on the imagination of post-Holocene, post-growth and post-capitalist futures from a plurality of social, political and aesthetic positions – and often intervening critically and ironically on the products of what Kodwo Eshun has called the "futures industry." See Eshun, "Further Considerations on Afrofuturism," *CR: The New Centennial Review*, vol. 3, no. 2 (2003): 287-302. Futurisms of many kinds have been inspired by the influential literary works of Octavia E. Butler and Ursula Le Guin and by the experimental music and film collaborations of Sun Ra. On Indigenous speculative fiction, see Leslie Marmon Silko, *The Almanac of the Dead* (New York: Simon & Schuster, 1991) and Gerald Vizenor (ed.), *Survivance: Narratives of Native Presence*. (Lincoln, Nebraska: University of Nebraska Press, 2008).

⁶⁶ How such an alternative will name itself, in what ways and conditions it would decide to mobilize itself for which actions, or how it will articulate with the recomposing remnants of the Left: all these are open questions for the present.

⁶⁷ Gerald Vizenor, *Hiroshima Bugi: Atamu 57* (Lincoln: University of Nebraska Press, 2003), p. 36: "Ronin creates words, names, and turns combinations of words, some native words, to intimate desire and the critical thrust of new ideas. 'Survivance,' for instance, is not merely a variation of 'survival,' the act, reaction, or custom of a survivalist. By 'survivance,' he means a vision and vital condition to endure, to outwit evil and dominance, and to deny victimry. Ronin told me that survivance is wit, natural reason, and 'perfect memory.' Dominance, he said, is inherited, 'a dead voice pursued by trickster stories.' Tragic wisdom is heard in stories of survivance, not dominance." See also Vizenor, *Manifest Manners: Narratives on Postindian Survivance* (Lincoln, Nebraska: University of Nebraska Press, 1999), and *Survivance*.

⁶⁸ They can also collapse as a result of carelessness, miscalculation, overreach, blowback or the bad luck of unforeseeable contingencies.

⁶⁹ If the Holocene is lost, it will be lost by all; but this needs to be qualified at once: all will not lose it in the same way or to the same extent. I guess there would be many modes and styles of survivance (as opposed to the survivalism of the armed and wealthy). As I read Vizenor's words in the previous note, survivance could be "a vision and vital condition to endure" available to others, so long as inheritances of domination are renounced. In

The loss of the Holocene climate and biodiversity needs to be understood as a *violence* against the *earthly* community of life: the lineage of that continuing violence goes back through the history of globalization, to the early-modern episodes of settler-colonial genocide, "primitive accumulation," enclosures and land-grabs, the burning of witches and wise women, and the enslavement of Africans for plantation labor.⁷⁰

No mourning of the loss of the Holocene, and no mourning of the end of modernity's worlds, is permitted to forget this; no non-Indigenous practice of survivance and re-worlding could remember it with enough justice.⁷¹

8.

More than two decades ago now, the "Anthropocene" was proposed as a name for the disturbance of the *global* and the emergence of the *planetary*.

Contested and internally conflicted, the term gave shelter to eco-modernists who saw the end of the Holocene as an occasion for the secret celebration of humanity's emergence as "a geological force."

But it also provided an opening to those who held the opposite view: the loss of the Holocene was evidence that human technology was out of control – proof of non-mastery.

The Anthropocene debates were about more than naming; at a deeper level, the stakes and conflicts concerned the *implications* of the global disturbance (planetary heating and biodiversity loss) and the *capacity* of existing conceptions (namely, of the "human" and the human/non-human relation), social relations (capitalism) and technologies (modernity) to respond adequately, as well as justly.⁷²

borrowing Vizenor's concept and extending it beyond its context of Indigenous resistance in dominant settler society, I am risking this reach.

⁷⁰ The juridical concepts of "genocide" and "ecocide" (and the associated *planetary* notion of "eco-genocide") acknowledge the massive violence and crime involved here. See Damien Short, *Redefining Genocide: Settler Colonialism, Social Death and Ecocide* (London: Zed Books, 2016) and Gene Ray, "Writing the Ecocide-Genocide Knot: Indigenous Knowledge and Critical Theory in the Endgame," *South as a State of Mind*, no. 8 [documenta 14, no 3], (Fall/Winter 2016): 117-136.

⁷¹ Indigenous scholars have critiqued the temptations to "terranullism" (the presumption that non-modernized land is "empty" and free for the taking) that may be lurking in some versions of the commons, especially in emphatically universalist ones. Any project of commoning that simply installs itself on stolen Indigenous land, without acknowledging and supporting Indigenous land struggles, would merely continue historical settler-colonial harms. This problem can be corrected by a *planetary* politics that prioritizes Land Back and envisions a postcapitalist social plurality that makes ample room for Indigenous self-determination. See Roxanne Dunbar-Ortiz, *An Indigenous People's History of the United States*, pp. 231-232. Dunbar-Ortiz discusses the critique of Jodi Byrd, *The Transit of Empire: Indigenous Critiques of Colonialism* (Minneapolis: University of Minneapolis Press, 2011).

⁷² See Andreas Malm and Alf Hornborg, "The Geology of Mankind? A Critique of the Anthropocene Concept," *The Anthropocene Review*, vol. 1, no. 1 (2014): 62-69; Jason W. Moore (ed.), *Anthropocene or Capitalocene?*

If "Anthropocene" had to be rejected, it is because the human species lacks the unified agency this term ascribes to it – and because the capitalist class most responsible for planetary meltdown can hide in this term with impunity.⁷³

The "human species" may be scientifically meaningful – still, for the moment, although, as seen, not without challenge – but *politically* the category of humanity has been a weapon of confusion and deceit.

Where does the human end and the "non-human" (the less-than-human) begin?

(If "we" are human, others may not be. Tomorrow, we may not be either. At any time, any part of those who are not included may be deported or disappeared, enslaved or reduced to "naked life." It all depends on who is deciding.)⁷⁴

If the drivers of modernization have been the accumulation of capital and the imperative to maximize profits (economic growth), then the *cut* of the modern has been the dominating separation of the human from the non-human, "Society" from "Nature."⁷⁵

The narratives of development and modernization have been "victors' history," in which those victors have reserved the status of human for themselves – and denied it to those who have stood in their way.⁷⁶

Nature, History and the Crisis of Capitalism (Oakland, PM Press, 2016); as well as Haraway, Staying with the Trouble, pp. 99-103; and Moore, Capitalism in the Web of Life, pp. 169-192.

⁷³ Malm and Hornborg, "The Geology of Mankind?"

⁷⁴ Who is deciding - and within what social force-field. On "naked life," see Giorgio Agamben, "What Is a Camp?" [1994] in Agamben, *Means without Ends: Notes on Politics*, trans. Vincenzo Binetti and Cesare Casarino (Minneapolis: University of Minnesota Press, 2000), pp. 37-45

⁷⁵ This is a common theme shared by Chakrabarty, Latour, Haraway, Tsing and Moore. See also Philippe Descola, Beyond Nature and Culture, trans. Janet Lloyd (Chicago: University of Chicago Press, 2013 [2005]) and The Ecology of Others, trans. Geneviève Godbout and Benjamin P. Luley (Chicago: Prickly Paradigm Press, 2013). For important critical discussions of the turn away from anthropocentrism, see Hornborg, Nature, Society and Justice; Malm, On the Progress of this Storm; and Kate Soper, What Is Nature? The critics charge the "posthumanists" (Latour and Haraway are often their exemplars) with incoherence: refusing anthropocentrism, Latour et al. nevertheless address themselves to humans and call for various human actions. The criticism bites for blanket refusals of anthropocentrism and human exceptionalism. But Latour, Haraway and Tsing are aiming at the dominant, modernist anthropocentrism that justifies extractions of the non-human pursued all the way to extinction. But to take the critics' point: nature and society are inseparable but do not therefore become identical. More care should be taken to specify the wantonly extractivist and supremacist versions of anthropocentrism. Soper also argues for the necessity of an analytic distinction between human and nonhuman, Nature and Society, and subject and object. Indeed, despite the destabilizations of new theory (including symbiogenesis), these paired entities remain "non-identical," as Adorno would put it. The difficulty is in articulating the relation between them in and across different contexts – or, to put it differently, how we understand the "separation" in each case. See also note 38, above; and notes 81, 84 and 85, below. ⁷⁶ This is another way in which Walter Benjamin's precious last essay, "On the Concept of History" (1940) could be read today, in planetary meltdown and all its unbroken impunities. In Benjamin, Selected Writings, Volume 4, 1938-1940, eds. Howard Eiland and Michael W. Jennings and trans. Edmund Jephcott et al. (Cambridge, MA: Belknap Press of Harvard University Press, 2003), pp. 389-400.

(If the counter-term "Capitalocene" also has to be refused, it is because capitalist modernity, already 500 years old, may well be ending rather than beginning: to give this name to a new epoch is to give away the future to a now illicit past – and to launch a thousand wars of retrospective periodization.)⁷⁷

Modernism has reached its breaking point because its toxic and supremacist anthropocentrism is inundated and scorched by the *planetary*; losing the Holocene, capitalism terminates its own right to exist.

Which is to say: the *planetary* crisis is also a crisis of modernist hegemony and legitimation.⁷⁸

The holobionts also known as humans are newcomers in the large-scale evolutionary reorganization of life that followed the last mass extinction 66 million years ago; that "K-T event" killed off the dinosaurs and 75-80 percent of species then existing.⁷⁹

Emerging from the survivors over countless generations, Holocene biodiversity reflects the struggles but also the symbiosis, resilience, care and cultures (reproductive labor) of a vast, more-than-human community.

"This community," writes extinction studies scholar Thom Van Dooren, "is the community of life that produced our own species, the community to which we belong."80

"We are not here alone": this conclusion shared by Indigenous, vernacular and traditional forms of science and experience is confirmed rather than refuted by contemporary biology. 81

Kinship, "mutuality of being," would be the re-tying of what modern anthropocentrism had cut: "All flourishing is mutual." ⁸²

⁷⁷ See also Haraway, *Staying with the Trouble*, p. 100: "I think our job is to make the Anthropocene as short/thin as possible and to cultivate with each other in every way imaginable epochs to come that can replenish refuge." ⁷⁸ There are many ways to explicate modernity's crisis of hegemony, which unfolds on all levels. So-called posthumanism, new materialism (or vital materialism), actor-network theory and object-oriented ontology all attempt to draw implications from the intellectual and disciplinary crises of a certain anthropocentrism. As different as these all are, as social facts or symptoms, they all point to the general crisis of hegemony. ⁷⁹ Van Dooren, *Flight Ways*, p. 42.

⁸⁰ Ibid. This is to say that the Holocene biodiversity that is threatened by capitalist modernization is "our" biodiversity, and that the reasons for curtailing or abolishing capitalism in order to defend it are ethical and aesthetic, as well as ecological and political.

⁸¹ See Haraway, *Staying with the Trouble*; Linda Hogan, *Dwellings: A Spiritual History of the Living World* (New York: Norton, 1995); Kimmerer, *Braiding Sweetgrass*; and Van Dooren, *Flight Ways*.

⁸² The phrase "mutuality of being" is from Marshall Sahlins, *What Kinship Is – And Is Not* (Chicago: University of Chicago, 2013), pp. 19. "All Flourishing is mutual" is from Kimmerer, *Braiding Sweetgrass*, pp. 15 and 20. Haraway argues for kinship as a demanding elective relationship across species, which implies ongoing obligations, inclusions and exclusions; *Staying with the Trouble*, p. 2: "*Kin* is a wild category that all sorts of people do their best to domesticate. Making kin as oddkin rather than, or at least in addition to, godkin and genealogical and biogenetic family troubles important matters, like to whom one is actually responsible. Who lives and who dies, and how, in this kinship rather than that one? What shape is this kinship, where and whom do its lines connect and disconnect, and so what? What must be cut and what must be tied if multispecies flourishing on earth, including human and other-than-human beings in kinship are to have a chance?"

Anthropocentrism and human species supremacism are constructed social facts: learned perspectives, dispositions and operational comportments that, to some extent, can be unlearned. But both anthropocentrism and the rigorous critique of it imply an at least minimal human exceptionalism.⁸³

"We have never been modern."84 "We" have never been we.

But even if every community is bound to center and defend its *common*, people are not anthropocentric to the same extent or in the same ways: "We should perhaps speak of anthropocentrisms in the plural here." 85

These differences are key, since the ethical, political and socio-ecological effects they produce will be very different.⁸⁶

"Human exceptionality. . . is as readily manifested in extreme empathy with other animals as it is in arrogant disregard for them. We must respect this abyss between humans and non-human animals even as we ponder what to do about it."⁸⁷

As seen, this doesn't mean that justice and reconciliation can pacify the biosphere – or that the more-than-human can easily be accommodated within human political projects.

⁸³ As Kate Soper has made clear, all criticism of anthropocentrism assumes that there is a possibility to *not* be anthropocentric (or to be less anthropocentric or be anthropocentric differently), which implies subjective capacities (agency) not usually attributed to animals or other non-humans. And statements about anthropocentrism only acquire ethical and political meaning by being addressed to humans who presumably have enough autonomy to act on them. The extreme position that anthropocentrism can be cast off completely and absolutely is therefore incoherent as well as deeply inconsistent. See Soper, *What Is Nature?* A rigorous and defendable position on anthropocentrism could hold that the differences between humans and non-humans are evolutionary differences of degree rather than kind, and do not entail an essentialist hierarchy. This would suffice to ground a critique of modernist, supremacist versions of anthropocentrism that posit human superiority in order to justify the violent extraction of the non-human.

⁸⁴ See Latour, *We Have Never Been Modern,* trans. Catherine Porter (Cambridge, MA: Harvard University Press, 1993), where Latour argues that modernity is constituted by the categorical separation of society (or the human) and nature (or the nonhuman) into ontologically sealed realms of purity; in practice, however, this dualism is continuously contradicted by the production of hybrids that are neither human-social nor nonhuman-natural. The crisis comes when science itself can no longer be called on to maintain and police the borders between these ostensible purities. With planetary meltdown, this crisis becomes acute.

⁸⁵ Chakrabarty, *The Climate of History*, p. 63. See note 81, above.

⁸⁶ Latour, *Down to Earth*, p. 85 (Latour's italics): "Obviously there is no politics other than that of human, and for their benefit! This has never been in question. The question has always been about the *form* and the *composition of this human*. What the New Climatic Regime calls into question is not the central place of the human; it is its composition, its presence, its figuration, in a word, its destiny. Now if you modify these things, you also change the definition of human interests."

⁸⁷ Kate Soper, *Post-Growth Living*, pp. 25-26. And, p. 25: "We need, then, to avoid crassly anthropocentric approaches to human-animal relations. We also, however, need to recognize that it is only humans who are in a position to extend moral consideration to other animals, and that even when posthumanists argue that animals should be treated on a par with human subjects, an appeal is being made to a capacity for moral discrimination that is exclusive to human beings." Drawing on Adorno, Soper argues compellingly for resisting all attempts to reduce, flatten or eliminate the "non-identity" of nature (the non-human).

"Our concerns for justice cannot any longer be about humans alone, but we don't yet know how to extend these concerns to the universe of non-humans (i.e., not just a few species)."88

But Chakrabarty, Latour, Haraway and Tsing – as well as other writers cited here – are in agreement that politics must be opened somehow to what David Abram reverently calls "the more-than-human matrix."⁸⁹

The question of how to do that – here and now, in the trouble – outflanks but only temporarily defers the standard question of the Left: how to *disarm, power down and abolish capitalism*.

Both questions together now reflect the challenging imperatives of *planetary politics*, which become material force in the co-production of *commoners*.

9.

The news that modernization is ending will not be welcome to those who have gained or aspire to a place within the *global* and its "immense accumulation of commodities." ⁹⁰

It will be bitterly received in the global South, where modernization (economic growth, "development") is still widely embraced as a vehicle for "raising millions out of poverty."

The climate justice movement begins with one impeccable observation: those in the South who bear the least historical responsibility for the planet's heating are nevertheless most exposed to its impacts.

The carbon debt falls to the global North, which over nearly two centuries built its relative power and prosperity on it (and of course on slavery, land grabs and other forms of

⁸⁸ Chakrabarty, *The Climate of History*, p. 178.

⁸⁹ David Abram, *Becoming Animal: An Earthly Cosmology* (New York: Vintage, 2011), p. 7. See also Abram, *The Spell of the Sensuous: Perception and Language in a More-Than-Human World* (New York: Vintage, 1997).
⁹⁰ Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (New York: Vintage, 1977 [1867]), p. 125: "The wealth of societies in which the capitalist mode of production prevails appears as an 'immense collection of commodities'[.]"

⁹¹ As Chakrabarty makes clear throughout *The Climate of History*, modernity is aspirational for millions in India and across the global South. In his reading, this is a legacy of anticolonial modernizers from the decades of decolonization and national liberation struggles. See Anil Agarwal and Sunita Narain, *Global Warming in an Unequal World: A Case of Environmental Colonialism* (New Delhi: Centre for Science and Environment, 1991). I use the terms global South and North (or just "South" or "North") not to displace or decenter the concept of class but rather to indicate that the inequalities that are irreducible to the workings of global capital have deep historic roots in colonial invasions, land grabs and slavery, and that contemporary forms of imperialism continue to operate these legacies of violence, asymmetry and structural "underdevelopment." That said, I do not wish to romanticize the South as a categorical identity. As many have noted, the capitalist class in the global South is in no way better than that in the North. See for example, Amitav Ghosh, *The Nutmeg's Curse*, p. 207: "[I]ndeed, the most voracious agents of extractivist capitalism today are probably those who came late to settler colonialism, like the elites of many Asian and African countries."

"primitive accumulation," as well as capital accumulation through the exploitation of labor-power).

Many climate justice advocates argue that the South needs more time for modernization, to build prosperity, adaptive capacity and resilience to climate chaos – and that the North should pay for this, through debt cancelation, cleaner energy technology transfers, and other forms of redistribution.⁹²

The case for reaching parity through degrowth in the North and modernization in the South is eminently reasonable but would require a political revolution of the globe, given that the dominant Northern nations have all adopted the "politics of the armed lifeboat." ⁹³

As Latour notes, the message of the Trumpist USA was and still is: "Our way of life is not negotiable!" 94

But the situation is worse: this refusal is the unified official message of the whole bloc of US allies, Europe included. The "imperial mode of living" is what the North calls "vital national interest." ⁹⁵

The climate and migration policies of these "leading" nations make clear that the promise of "modernization for all!" has truly been abandoned: their modernization, and *theirs alone* will be defended at all costs.⁹⁶

⁹⁵ Ulrich Brand and Markus Wissen, *The Imperial Mode of Living: Everyday Life and the Ecological Crisis of Capitalism* (London: Verso, 2021). The imperial mode that Brand and Wissen analyze is at core a commodified and aspiration-driven way of life that comes at the expense of others; they show how Northern working and middle classes, as well as growing middle classes in the South, both enjoy and come to have a stake in sustaining this mode – on the backs of others. Access to commodified abundance for some means that others elsewhere will be exploited and excluded. The imperial mode destroys solidarity, fuels national-imperialist rivalries and makes wars more likely. The only exit from the vicious circle would be pathways beyond capitalism itself.

⁹⁶ The much hyped "Loss and Damage Fund" for vulnerable countries agreed to at COP27 in 2022 was a move in the right direction but the funds so far put on the table remain paltry compared to needs. New pledges for an adaptation fund came to just USD 230 million; and meanwhile the promise made by wealthy nations at COP15

⁹² See Henry Shue, Climate Justice: Vulnerability and Protection (Oxford: Oxford University Press, 2014). It is an open question – for difficult negotiations rather than answers by fiat – how far modernization can be continued anywhere, given its biospheric impacts and the urgency of the heating and climate crisis. Who decides how many species should be lost, so that a billion more smartphones can be sold or so that a particular global infrastructure can be "sustained"? See also Chakrabarty, The Climate of History, p. 62: "Nor can I forget the pride with which today the most ordinary and poor Indian citizen possesses his or her own smartphone or its cheap substitute. The lurch into the Anthropocene [in the post-1945 "great acceleration"] has also been globally the story of some long-anticipated social justice, at least in the sphere of consumption." It must also be said that in order to be viable the concept of climate justice must entail an end to Northern military interventions and bases, coup-making, economic sanctions and other forms of imperialist enforcement in the global South. ⁹³ Christian Parenti, *Tropic of Chaos: Climate Change and the New Geographies of Violence* (New York: Nation Books, 2011), p. 11. The "politics of the armed lifeboat" means: "responding to climate change by arming, excluding, forgetting, repressing, policing and killing." For a lucidly imagined fictional account of the model, see John Lanchester, The Wall (London: Faber & Faber, 2019). A much earlier essay (2007) by the same novelist remarked, in a series of striking rhetorical questions, the lack of robust resistance to the material infrastructure of greenhouse gas emissions; Andreas Malm later named and discussed these questions as "Lanchester's paradox" in Malm, How To Blow Up a Pipeline: Learning To Fight in a World on Fire (London: Verso, 2021), pp. 11-13.

⁹⁴ Latour, *Down to Earth*, p. 3 (my italics).

Meanwhile, neither historical responsibility nor any obligation for social or ecological reparation is acknowledged: impunity, too, is a Northern entitlement.⁹⁷

The consensus technocratic strategy now is for each nation or bloc to fortify the borders and belatedly begin a slow, partial decarbonization of energy systems under the mantra of green growth.⁹⁸

For this transition, the extraction of lithium, nickel, cobalt, copper, bauxite, graphite and rare earths (for batteries, wind turbines, solar panels, semiconductors and smart phones – but also weapons systems) will need to increase many times.⁹⁹

in 2009 to jointly direct USD 100 billion a year to "developing" nations for climate adaptation has, as I write this, *never* been met. These figures need to be compared to global military spending, which passed USD 2 *trillion* in 2021 and rose further to USD 2.24 *trillion* in 2022. The gap between these numbers makes a forceful case for disarmament. See Nan Tian, Diego Lopes da Silva, Xiao Liang, Lorenzo Scarazzato, Lucie Béraud-Sudreau and Ana Assis, *Trends in World Military Expenditure, 2022* (Stockholm: Stockholm International Peace Research Institute, 2023). To complete the image, now add another number for comparison to these: over the next seven years alone, the oil industry will spend nearly *a trillion dollars* developing *NEW* oil and gas fields. See Global Witness, "World's Biggest Fossil Fuel Firms Projected to Spend almost a Trillion Dollars on New Oil and Gas Fields by 2030," Press Release, 12 April, 2022, https://www.globalwitness.org/en/press-fields-by-2030/.

⁹⁷ The "armed lifeboat" is a politics of terror organized around the border and its unspoken question: do you want to be *in with us* or locked out and left behind? In the South's zones of abandonment and on the borders, the question, answered by actual policies, kills directly; in the North, its threat is a social control function of the national security state. Climate refugees are still not recognized and protected under international law – because states agree in refusing to accept any obligation to care for them. Meanwhile the decolonizing confrontation with the 500-year history of modernity's violence – initiated and energized by Indigenous land and water struggles and the movement for racial justice led by Black Lives Matter – continues but has been getting strong pushback from the political Right. So far, there have been token gestures rather than serious commitments to transformative institutional decolonization, reparative justice, Land Back, or the abolition of repressive and carceral state agencies.

⁹⁸ Why so slow? Why all the high-level foot-dragging and back-sliding? For a meticulous analysis of how the imperatives of profit maximization and economic growth translate into corporate investment in fixed capital, producing "technological lock-in" and "socio-economic inertia," see Brand et al., "From Planetary to Societal Boundaries"

⁹⁹ The large reserves of these so-called critical minerals – of lithium in the Andean salt flats of Chile, Bolivia and Argentina, of cobalt in the Democratic Republic of the Congo, and of nickel in Indonesia and the Philippines – are the flashpoints of present imperialist conflict and future regional wars. See Jason Bordoff and Meghan L. O'Sullivan, "Green Upheaval: The Geopolitics of Energy," *Foreign Affairs*, January/February 2022, https://www.foreignaffairs.com/articles/world/2021-11-30/geopolitics-energy-green-upheaval; Henry Sanderson, *Volt Rush: The Winners and Losers in the Race to Go Green* (London: Oneworld Books, 2022); Fred Pearce, "Why the Rush to Mine Lithium Could Dry Up the High Andes," *Yale Environment 360*, September 19, 2022, https://e360.yale.edu/features/lithium-mining-water-andes-argentina; and Jocelyn C. Zuckerman, "For Your Phone and EV, a Cobalt Supply Chain to a Hell on Earth," *Yale Environment 360*, March 30, 2023, https://e360.yale.edu/features/siddharth-kara-cobalt-mining-labor-congo.

But swapping out pipelines for open pit mines and replacing cars with new EVs will not make for a just transition – or even an adequate one. Transformations of energy systems are needed, but these systems also need to be *reduced*. 101

Without systemic self-restraint, the failing squared circles of green growth will lead to more intensification of social antagonisms and more loss of biodiversity.

Biospheric resurgence, survivance and commonization would need to be co-produced in a conjuncture – the shifting force field of class antagonisms and social conflicts – that rejects cooperation and prefers to negotiate by coercion and force of arms. ¹⁰²

In this *global* disorder of critical mineral gaps, relaunched ethnonationalist projects, and escalating international rivalries, a new climate imperialism has emerged; its immanent drift is toward climate fascism.

Planetary politics is by necessity opposed to wars between nation-states – and by implication anti-imperialist; its logic pushes for international disarmament and against the national security nexus.

¹⁰⁰ An urgent aim of *planetary* politics, not currently on the radar of mainstream media, is international law establishing strict and binding socio-ecological and labor rights standards for mining – lest large parts of the global South be turned into an open pit wound. These could intersect with new legal institutions organized to prosecute crimes of ecocide.

¹⁰¹ The extensive literature on "degrowth" establishes that socially and economically just and prosperous societies are possible, but they will not be commodified capitalist ones. See Giacomo D'Alisa, Federico Demaria and Giorgos Kallis, eds., *Degrowth: A Vocabulary for a New Era* (London: Routledge, 2015); Mark Burton and Peter Somerville, "Degrowth: A Defense," *New Left Review* 115 (January/February 2019): 95-104; Jason Hickel, "Degrowth: A Theory of Radical Abundance," *Real-World Economics Review* 87 (19 March 2019): 54-68; Giorgos Kallis, *In Defense of Degrowth: Opinions and Manifestos*, ed. Aaron Vansintjan (Brussels: Uneven Earth Press, 2017); Serge Latouche, *Farewell to Growth*, trans. David Macey (Cambridge: Polity Press, 2009); Kohei Saito, *Marx in the Anthropocene: Toward the Idea of Degrowth Communism* (Cambridge: Cambridge University Press, 2023); Matthias Schmelzer, Andrea Vetter and Aaron Vansintjan, *The Future is Degrowth: A Guide to a World beyond Capitalism* (London: Verso, 2022); and Kate Soper, *Post-Growth Living: For an Alternative Hedonism* (London: Verso, 2020).

¹⁰² Despite rhetoric to the contrary, the imperialist politics of coercion and terror is plain to see, from the 2003 invasion of Iraq to the 2022 invasion of Ukraine. The meaning of the current revival of "geopolitics" and performative worrying about the so-called "rules-based international order" is: the crisis-driven intensification of inter-imperialist rivalries. The declining influence of the established US bloc (including UK, Australia, Canada, Japan, South Korea, Israel and, somewhat less enthusiastically, Europe) faces the rising power of China and an emerging counter-bloc that could eventually include Russia, Iran, India, South Africa and Brazil, among others. A critical indicator to keep eyes on is the relative strength of the US dollar as the world reserve currency, a place it has held since World War II. A new world war over Taiwan (a critical node in the microchips supply chains) or over control of critical minerals in any number of conflict zones would obviously be disastrous. In addition to the lives directly destroyed, such a war would detonate new carbon bombs into the future and deflect focus from needed *planetary* transformations. Anti-war movements and forces have much to do.

The *planetary* is the deep non-linear, as it crosses the globe: modernity's blowback and, maybe, capital's unexpected inhuman gravedigger.

Modernization has triggered reactions from the planet: this feedback amounts to a *planetary* indictment of the social and economic forms constructed over the last 500 years.

Commodification, the capitalist growth imperative and modernity's disruptive technologies have been exposed as threats to the biosphere; capitalism's capacities for self-limitation are deeply in doubt.

What Mark Fisher called "capitalist realism" was a 30-year collective delusion: against delusion, *planetary* or metabolic or biospheric realism puts biodiversity above growth and profit imperatives. ¹⁰³

The *dominating separation* of human and non-human, Society and Nature – the assumption of mastery without belonging or obligations – is itself unsustainable.

At the moment, the increasingly corrupted, dysfunctional, hacked and attacked party politics of *global* "post-democracies" offer no clear pathways to post-capitalism. Electoralism will not be the horizon or effective form for a politics of collective self-rescue.¹⁰⁴

"How degrowth might happen, we don't know. A fortuitous combination of popular struggle and collapse of the capitalist system is perhaps the only route." 105

But alternatives to *global* business-as-usual have been rigorously theorized, vividly imagined and in some places impressively put into practice. 106

The modest work of mutualist self-rescue can begin without waiting for an organized extinction revolution of established politics: practices of more-than-human *resurgence*, *survivance* and *commonisation* are possible here and now, in the trouble – and on all levels of life, as well as art.¹⁰⁷

¹⁰³ Mark Fisher, Capitalist Realism: Is There No Alternative? (London: Zero Books, 2009). I am borrowing Fisher's phrase loosely, to indicate any political position or form of resignation that accepts capitalism as the only possible social form and logic, or else holds that there is no possible exit from or outside to this social form.
¹⁰⁴ This conclusion does not deny that there may be good tactical reasons for voting in particular elections, but merely underscores that current electoral systems are organized to block processes and alternatives that could lead to post-capitalism. Systemic change will emerge from elsewhere.

¹⁰⁵ Burton and Somerville, "Degrowth: A Defense," p. 104.

the prayer camps of Indigenous water protectors at Standing Rock to the ZAD of Notre-Dame-des-Landes, possibilities for planetary futures have been actualized and demonstrated. See Isabelle Fremeaux, Jay Jordan and Gene Ray, "Rural Riots, Animist Rituals and Teaching from the Territory: A Conversation with the Laboratory of Insurrectionary Imagination," *ISSUE, Journal of Art & Design, HEAD-Genève*, no. 18 (15 May 2023); https://issue-journal.ch/focus-posts/rural-riots-animist-rituals-and-teaching-from-the-territory/.

¹⁰⁷ I am not advocating here a posture of waiting, but merely acknowledging that individuals acting alone cannot realize a rupture with business as usual at the scales of nation, society or globe. What is needed is nothing less

The *planetary politics* of these beginnings will be realized in "a world in which many worlds fit" when anticapitalism and decolonization cease to be metaphors circling outside the social force field.¹⁰⁸

"Other species, too, await our liberation." 109

What is clear already is that all social questions have become socio-ecological questions – *all the way down* and not merely as optional add-on or upgrade.

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than "a revolution in economic priorities," as Carolyn Merchant already concluded in her 1980 classic of Marxist eco-feminism. Such a revolution will not arrive because everyone waits for it; obviously, it would need to be organized and struggled for. *Commonisation* is not a substitute for the abolition of capitalism; it is rather a decent pathway open to individuals now. Articulated with and allied to intersectional social movements and leftist struggles, the shared experiences, skills and relations gained in commonisation processes could contribute much to the re-composition of needed struggle forms and counterpowers.

¹⁰⁸ The quoted phrase is of course from the Zapatistas. I am assuming that planetary post-capitalism will – and must – take plural forms developed through different, locally inflected processes of revolution and consensus, rather than as a singular, universally established (global) model of eco-socialism or the commons. There is ample room for variation within these concepts and their animating principles of justice.

¹⁰⁹ Malm, *The Progress of this Storm*, p. 190: "The grotesque concentration of resources for burning at the top of the human pyramid is a scourge for all living beings; an effective climate policy would be the total expropriation of the top one to ten percent. That could eliminate up to half of all emissions in one fell blow and finance a global transition several times over. Some humans would have to induce such a measure, but they would scarcely gain more from it than the animals, whose objective interest – as subjectively mute as it might be – aligns neatly with that of the human enemies of the 1 percent. Other species, too, await our liberation." Malm returns here to Frankfurt Institute calls for and discussions of "the liberation of nature," and in particular Herbert Marcuse, *Counterrevolution and Revolt* (Boston: Beacon Press, 1972), pp. 59-78.