

## Germinations

### An Introduction

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Seeds of change. Seeds of hope. For millennia, seeds have been potent symbols of possibility and of the beneficial entanglement between humans and the natural world.<sup>1</sup> Drawing on seeds' inherent capacity to reproduce themselves, farmers have freely saved and exchanged seeds for most of agricultural history. Seeds are thus a living embodiment of the commons, a biosocial archive of the quotidian communism on which the reproduction of the human species depends. Indeed, even while other sectors of farming came increasingly under the sway of agribusiness over the last century, seeds, the core element of farming, remained a fundamental barrier to capitalist enclosure. Catalysts of social creativity and interconnection, seeds are harbingers of broader forms of common life and collective wealth. For this reason, the French author Émile Zola concluded his great fictional chronicle of working-class rebellion against fossil capitalism with a stirring image of germination: "Men were springing forth, a black avenging army, germinating slowly in the furrows, growing towards the harvests of the next century, and their germination would soon overturn the earth."<sup>2</sup> Seeds rise up.

But the autonomy of seeds and their regenerative capacity have been seriously compromised in recent decades. New forms of agricultural biotechnology have permitted capital to subsume seeds within its circuits of accumulation, first through the development of hybrid seeds and more recently in the form of genetically engineered seeds.<sup>3</sup> The genetic components of this most basic element of life

are now increasingly subject to patenting and restrictive corporate ownership. Farmers around the world grapple with an agribusiness regime that produces genetically modified terminator seeds capable of growing only sterile plants, and even exterminator seeds containing poisons that kill other species, like insects and fungi. In tandem with this biocapitalist transformation of seed itself, a draconian system of proprietary rights and corporate surveillance has been introduced in recent decades, making millennia-old acts of seed saving and exchange into a form of civil disobedience and, in many countries, criminalized behavior. Farmers around the world also struggle with corporate land grabs that rob them of access to the fields and expand massive monocultural plantations, in the process decimating wildlife and generating immense carbon emissions.

This transformation has dire implications. While corporate monocultural agriculture is producing more food than ever, more than 800 million people go hungry each year, and more than 2 billion more people are suffering from nutritional deficiencies.<sup>4</sup> According to the United Nations, 75 percent of the genetic base of agricultural crops have been eradicated during the past half century.<sup>5</sup> Scientists estimate that 83 percent of the planet's wild mammals and half of its plants have been destroyed.<sup>6</sup> Biodiversity loss and climate change are now regarded by scientists as interconnected and mutually reinforcing. Ecocide is an intersectional crisis on a planetary scale.

Over the last two decades, transnational agrarian movements based in peasant and Indigenous communities have increasingly contested and disrupted this attempted enclosure of the seed commons.<sup>7</sup> Mobilizing around creative concepts such as open-source seeds and seed sovereignty, these seed activists have organized to defend their rights to preserve agricultural biodiversity and peasant seed systems using everyday practices of seed saving and exchange. In tandem, they and allied civil society organizations have generated remarkable levels of political dissent against agribusiness, which, they underline, is one of the forces most responsible for planetary ecocide through its land grabbing, its massive carbon footprint, and its obliteration of biodiverse environments.<sup>8</sup>

Produced by the SeedBroadcast Collective, a New Mexico-based collaborative project exploring bioregional agriculture and seed action, the image on the front cover of this issue of *Radical History Review* documents one instance of this emerging constellation of seed activism. Part of the *Seed: Climate Change Resilience* exhibition, the photograph of heirloom corn varieties growing under a big sky illustrates the collaborative research the collective kicked off in 2016 with a variety of agroecology and food justice organizations based in New Mexico and Arizona.<sup>9</sup> Groups in the US Southwest, such as the New Mexico Food and Seed Sovereignty Alliance, which was formed by an array of Native organizations in 2006 and created a *Seed Sovereignty Declaration* to defend native seeds from contamination by genetically

modified seeds, have played a prominent role in regional seed activist efforts.<sup>10</sup> Many of the farmers in these organizations have been marginalized because of racism and classism, and because they practice forms of what the SeedBroadcast Collective calls “agri-Culture”: modes of farming that challenge mechanization, pesticides, herbicides, monoculture, bioengineering, and corporate monopoly capitalism. By practicing bioregional agriculture, farmers adapt to local conditions and therefore need minimal toxic inputs—in contrast to agribusiness models that homogenize farming across diverse spaces and therefore use poisonous inputs that kill the soil.<sup>11</sup> Through bioregional agriculture, SeedBroadcast’s partner organizations and communities support biodiversity across arid land ecologies. As the collective puts it, “These interwoven relationships between heritage seeds/crops, wildlife (plants, animals, and insects), watershed, people, and culture hold a significant place in the health and well-being of communities, both human and more, as they respond to the impacts of climate change.”<sup>12</sup> The partially buried speed limit sign in our cover image is a fitting symbol of these organizations’ fight for a world beyond fossil capitalism and climate crisis.

The corporate enclosure of seeds and the land grabs that are its corollary constitute a massive environmental and social transformation, a metamorphosis of a magnitude significant enough to be included among the planet-shaping forces of the Anthropocene epoch. Introduced by the atmospheric chemist Paul Crutzen and the biologist Eugene Stoermer in 2000, the term *Anthropocene* designates the era in which human activities have become the central drivers of geologically significant conditions.<sup>13</sup> In 2019, after a decade of debate about the validity of the term and its appropriate historical periodization, a panel of scientists known as the Anthropocene Working Group voted in favor of designating a new geologic epoch, which they argued began in the mid-twentieth century with nuclear explosions set off by the United States and its allies as well as the Soviet Union.<sup>14</sup> Yet, if the Anthropocene seemingly testifies to humanity’s Promethean capacity to shape the environment, this power is anything but beneficent. We teeter today on the brink of environmental cataclysm on a planetary scale.

If some historians have argued that the Anthropocene implies that the expanding environmental footprint of humanity in general is responsible for the storms that are engulfing us, for others the Anthropocene obscures thorny questions of unevenly distributed agency and guilt.<sup>15</sup> The Anthropocene, in other words, is not a purely geological or even academic issue. It has very real political implications. As the Red Nation Collective puts it in explaining the need for a radical Red Deal: “Warming temperatures demonstrate how deeply entrenched CO<sub>2</sub> emissions are within class society. Framing this as a panhuman problem or a problem of the species—such as the term ‘the Anthropocene,’ the geological age of the fossil fuel economy—misses the point. A select few are hoarding the life rafts while also

shooting holes in a sinking ship.”<sup>16</sup> The Anthropocene is, in the words of Kathryn Yusoff, a form of “White Geology” that averts its gaze from the extinctions through which modernity and freedom were constituted.<sup>17</sup>

Moreover, as the environmental historians Christophe Bonneuil and Jean-Baptiste Fressoz argue, the Anthropocene narrative of centuries of unaware environmental destruction followed by a dawning consciousness of crisis—which they describe with savage irony as the “shock of the Anthropocene”—is historically inaccurate.<sup>18</sup> Contrary to the idea that science and dominant elites were blind to environmental destruction but now suddenly can see, there was in fact an acute awareness of the interactions between nature and human society in previous centuries, frequent warnings about the damage being done, and consistent resistance against the plunder of nature. The question, then, is how we entered the Anthropocene *despite* such warnings and resistance.<sup>19</sup> To answer this question, we must decide who exactly is the *anthropos*.<sup>20</sup> Who, in other words, is responsible for this mounting disaster, and who should be made to pay reparations?

The proliferation of various alternative terms in recent years is an effort to answer the question of responsibility: the Capitalocene, the age of capital-driven environmental change; the Plantationocene, the age of monocultural agricultural transformation; the Thermocene, the era of fossil fuel-based environmental change; the Necrocene, the age of mass extinction. Other -cenes have multiplied wildly in recent years.<sup>21</sup> Each of these alternative terms for the Anthropocene is, in Mark Bould’s words, intended to “designate a protagonist,” “construe a narrative,” and “shape perception,” whether rooted in capitalism, plantation-based economies of colonialism and slavery, or fossil fuel-based modernity, among other possible narratives.<sup>22</sup> They all challenge the erasures implicit in the term *anthropos*, a homogenizing label that conveniently obscures inequality, commodification, imperialism, patriarchy, settler colonial genocide, and many more forms of oppression from the historical record. If each of these alternative terms suggests a different force driving planetary ecocide, they also each imply different periodizations for the unsustainable trajectory that has led to the current crisis. Contrary to the relatively recent origin points assigned by the Anthropocene Working Group, alternative terms for the Anthropocene delve further back into the historical record.

If, for Paul Crutzen, James Watt’s design of the steam engine in 1784 was the motive force that led to spiraling carbon emissions, for Jason W. Moore, only the drive for capital accumulation could have mobilized coal, steam, and their pollution in the first place.<sup>23</sup> And if capitalism is denominated as a motive force, then the worldwide scourge of “primitive accumulation” that constituted colonialism must also be considered as a catalyst for the Anthropocene. This revised periodization would entail dating the onset of the epoch to the massive genocide that began in 1492 with the arrival of Europeans in the Americas, a paroxysm of violence that killed an estimated 50 million Indigenous people and led to a hemisphere-wide reforestation and consequent carbon uptake that can be measured in vegetation

and soils.<sup>24</sup> Alternative terms for the Anthropocene thus offer us analyses of the historical agents, forms of power, and historical trajectories of planetary ecocide.

What of resistance to these forces of ecocide? This issue of *Radical History Review* is dedicated to examining such alternatives to the Anthropocene. Much valuable work is currently being carried out to imagine present and future ways of being “beyond the world’s end,” in the words of art historian T. J. Demos.<sup>25</sup> Militant ecocriticism today includes a wide spectrum of work, from prefigurative cultural criticism to forceful interventions into questions of radical strategy in the present conjuncture. Theorists have explored everything from how we imagine alternative, more generative linguistic descriptions of the world to how to craft post-carbon political formations.<sup>26</sup> These explorations are essential, but what, we wondered, are the historical antecedents to today’s movements of ecological insurrection? And how do these prehistories inform present and future possibilities for life beyond the Anthropocene?

While it might be anachronistic to speak of an ecological movement when the very word *ecology* was coined by Ernst Haeckel only in 1866, efforts to halt and turn back the intertwined forces of environmental and social destruction were widespread over the earlier centuries of the Anthropocene epoch. Alternative ways of ecological and social being in the world were common, tenaciously fought for, and enduring, even if they clearly have not triumphed against a capitalist system hell-bent on exploitation on a planetary scale. This issue of *Radical History Review* offers case studies of these alternative worlds, orientations, and movements. We conceptualize these alternatives as seeds of ecological revolt, sometimes growing to fruition, sometimes lying long dormant, and always waiting for the right conditions to rise up.

Contributors to this issue explore historical instances of what Ramachandra Guha and Joan Martínez Alier called the “environmentalism of the poor.”<sup>27</sup> These forms of environmentalism, in other words, are not based on some reified notion of pristine wilderness to be preserved free from human influence, or on the gospel of capitalist development, efficiency, and technocratic solutions to social crises; rather, environmentalism of the poor defends intimate entanglements between people and the natural worlds on which they depend. These are subaltern environmentalisms, to use Laura Pulido’s conceptualization, which contest elite, state-centered, developmentalist discourses and policies, and fight for ecological democracy and justice.<sup>28</sup> Subaltern environmentalisms seek to sabotage the Anthropocene and to build alternatives out of the wreckage. If, in Gayatri Chakravorty Spivak’s famous definition, the voice of the subaltern cannot be heard since it is recorded only in the archives of the colonial state, the record of subaltern insurrection nonetheless leaves traces in the colonial archives.<sup>29</sup> It is precisely such traces that this issue of *Radical History Review* seeks to excavate. We call, in other words, for a subaltern environmental studies.<sup>30</sup>

By definition, subaltern environmentalisms challenge the destructive impact of the colonial and capitalist state. Christian Høgsbjerg’s analysis of the Caribbean

radical C. L. R. James's engagement with environmental questions explores how *The Black Jacobins*, James's great history of the Haitian Revolution, depicts not just the overthrow of colonial power on the island but also the resistance of Black revolutionaries to what might be called the plantation mode of production. James's analysis, Høgsbjerg argues, was informed by his own experience with the efforts of radical groups to break up the sugar plantation economy in postcolonial Trinidad, as well as his deepening awareness of revolutionary peasant struggles around the world against what Donna Haraway has called the Plantationocene, or, in her words, a "system of multispecies forced labor."<sup>31</sup> In a similar vein, Adam Quinn's essay on the environmental politics of transnational anarchism in the late nineteenth and early twentieth centuries emphasizes that anarchist activists and thinkers as diverse as Peter Kropotkin, Ricardo Flores Magón, and Emma Goldman fought not just to overthrow the state and capitalism but also to establish new societies in which the liberation of people and the defense of nature were inextricably interwoven.

Yet there is nothing inherent to environmental oppression that dictates particular political reactions. The Anthropocene is a conjunction of intersecting forces. In this sense, it is radically indeterminate: we cannot expect any specific political formations or strategies to emerge in response to the various forms of peril associated with the era. Iva Peša's discussion of divergent reactions to extractivism in Zambia, South Africa, and Nigeria documents the toxic legacies of development borne by African peoples while also investigating the specific factors that catalyze accommodation or uprising to these burdens. People's capacity to envisage and fight for alternatives to the Anthropocene, according to Peša, depends on specific, locally situated histories of forces such as capitalism and colonialism that constitute the Anthropocene. Working in a complementary mode, Zoe Goldstein shows how struggles against racialized dispossession in the form of the housing crisis in Oakland, California, must be seen as a fight for environmental justice. Although efforts to dismantle the capitalist rentier economy are not usually seen as a form of environmentalism, for Goldstein eviction is an extension of long histories of racial capitalism and settler colonialism whose past and present are intimately intertwined with environmental despoliation and injustice. Goldstein describes the interruption of geographies of exclusion carried out by unhoused activists in Oakland as a form of "re-commoning."

The idea of the subaltern, as a group whose voice is constitutively silenced in the colonial archive, suggests an inherent exclusion from power. Such marginalization often takes the form of banishment from the category of humanity. Terike Haapoja's essay in *Curated Spaces* explores her *Museum of Nonhumanity*, the tragically deep archive of historical exclusions from "the human" that have helped legitimate exploitation, oppression, and genocide. Haapoja demonstrates the heavy political lifting done by the idea of the animal, with variations on the subhuman, less than human, and nonhuman merging insidiously with diverse regimes of racial capitalism. Matthew Shutzer and Arpitha Kodiveri discuss another form of constitutive exclusion in their article on extractivism and sovereignty in colonial and postcolonial

India. Their discussion explores the origins of subterranean sovereignty in the conquest of the Indian subcontinent by the British East India Company, an alignment that endured during the postcolonial era to render fossil fuels part of an underground terrain belonging to the state. In this way, the Adivasi, or Indian Indigenous people, are represented by state and corporate elites as having no right to control extractive operations that take place on land that has been legally acknowledged as theirs.

Yet these exclusions are always contested, both in moments of revolutionary uprising that can lead to the capture of state power and in more quotidian forms of resistance. Subaltern environmentalisms are thus characterized by ontological militancy as well as political revolt. Michela Coletta's discussion of the decolonial work of the Aymara-Bolivian thinker Silvia Rivera Cusicanqui investigates the relational modes of thinking inherent in the Aymara linguistic concept of *ch'ixi*. According to Coletta, this concept's emphasis on the parallel coexistence of difference is a key element of Rivera Cusicanqui's struggle to build community beyond colonial dualisms that separate people and the natural world, thereby legitimating extractivism. In a parallel discussion, Francesco Martone and Rosa Jijón of the group A4C-artsforthecommons analyze the work of insurgent visual artists grounded in or closely collaborating with Latin American Indigenous communities. For Martone and Jijón, the visual arts render the parallels between exploitation of feminine bodies and extractivism palpable, while also making the resistance of Indigenous communities to such forms of violence visible. LaKendrick Richardson's essay blends autoethnography and historical research to depict the ways in which the Anthropocene shapes life on the somatic level. His essay on life in the Alabama Black Belt shows how the idea of the Anthropocene erases the bodily experiences of Black and Brown people, and how the Black Belt has been the historic cradle for fierce movements for environmental justice that fulfill Kathryn Yusoff's call for "a billion Black Anthropocenes."<sup>32</sup>

This issue of *Radical History Review* appears at an admittedly bleak moment. Fossil fuels kill more than 8 million people each year, and an average of 20 million people are displaced each year by disasters related to the climate crisis.<sup>33</sup> Only a tiny percentage of these people ever migrate to the core imperialist nations, but the specter of climate refugees provides ideological fodder for climate-change-denying ecofascist movements that have gained an increasing segment of the vote in many wealthy and even some poor countries. Fossil fascism is on the march, and in far too many places, on the ascendant.<sup>34</sup> This issue thus includes a roundtable discussing environmental injustice, climate refugees, and border abolition, which contributors posit as a radical alternative to the Anthropocene. Given the abject failure of mainstream political leadership to adequately address the environmental crisis, abolishing borders must be among the key demands of the climate justice movement. Migration, after all, is a form of adaptation to wealthy nations' colonization of the atmosphere and to the failure to decarbonize fossil capitalism.

Most of all, the contributions to this issue remind us of the burning need for *radical* history. After all, over the last few years, proposals for sweeping environmental reconstruction—many going under the name of the Green New Deal—have largely been shut down at the ballot box or in the corrupt halls of state power. Elites have refused to build back better after the pandemic; instead, they are currently falling over themselves to hand out wads of cash to fossil capitalism. In the face of these grim realities, we need to decolonize our ideas about what alternatives to the Anthropocene are possible and desirable. As scholar-activists such as Andreas Malm have argued, the political imaginary and repertoire of contemporary environmentalism have been impoverished by the insistence of organizations such as Extinction Rebellion that the only effective and viable form of protest is nonviolent.<sup>35</sup> Against this cramped sense of possible modes of resistance, the subaltern environmentalisms discussed in this issue demonstrate a notable diversity of tactics. Struggles for liberation from the intersecting forms of violence that constitute the Anthropocene have adopted a broad spectrum of strategies, from the ontological decolonization of figures like Silvia Rivera Cusicanqui and Cecilia Vicuña to the acts of sabotage of an organization like the Movement for the Emancipation of the Niger Delta or the armed anti-colonial militancy of Ricardo Flores Magón and the Black revolutionaries in Haiti. Given the stakes of our present struggle, we need to recuperate, learn from, and be willing to deploy—where and when appropriate—such a diversity of tactics.<sup>36</sup>

Pessimism and political inertia are luxuries we cannot afford in the current historical context. We know from the essays collected in this issue of *Radical History Review* that subaltern environmentalisms grow from hardy seeds, seeds of insurrection. We hope that their germination helps overturn the Anthropocene.

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## Notes

1. Van der Veen, "The Materiality of Plants," 799.
2. Zola, *Germinal*, 364.



3. Kloppenburg, *First the Seed*.
4. "Agriculture at a Crossroads: Findings and Recommendations for Future Farming," www.globalagriculture.org (accessed August 4, 2022).
5. United Nations, *International Assessment of Agricultural Knowledge, Science, and Technology for Development* (2008).
6. IPBES/IPCC, *Biodiversity and Climate Change: Workshop Report*.
7. For a history of this movement, see Peschard and Randeria, "Keeping Seeds in Our Hands."
8. GRAIN, *The Great Climate Robbery*.
9. SeedBroadcast Collective, *Seed: Climate Change Resilience*.
10. Grist Creative, "Keeping Seed Sovereignty Local."
11. Brown, Barton, and Cunningham, "How Bioregional History Could Shape the Future of Agriculture."
12. SeedBroadcast Collective, *Seed: Climate Change Resilience*.
13. For a discussion of official and contestatory definitions of the Anthropocene, see Demos, *Against the Anthropocene*.
14. Subramanian, "Anthropocene Now."
15. Among the former, see, for example, Chakrabarty, "The Politics of Climate Change."
16. Red Nation, "To End Fossil Fuels, End Settler Colonialism."
17. Yusoff, *A Billion Black Anthropocenes or None*.
18. Bonneuil and Fressoz, *Shock of the Anthropocene*, 72–79.
19. Bonneuil and Fressoz, *Shock of the Anthropocene*, 79.
20. Bonneuil and Fressoz, *Shock of the Anthropocene*, 65–98.
21. Bonneuil and Fressoz offer seven different alternative terms.
22. Bould, *The Anthropocene Unconscious*, 9.
23. Moore, *Capitalism in the Web of Life*, 170.
24. Lewis and Maslin, "Defining the Anthropocene," 175.
25. Demos, *Beyond the World's End*.
26. On linguistic/cultural alternatives, see Schneider-Mayerson and Bellamy, *Ecotopian Lexicon*; on post-development imaginaries, see Kothari et al., *Pluriverse*; on post-carbon political formations, see Aronoff et al., *Planet to Win*; Chomsky and Pollin, *Climate Crisis*; Lawrence and Laybourn-Langton, *Planet on Fire*; and Pettifor, *Case for the Green New Deal*.
27. Guha and Martínez Alier, *Varieties of Environmentalism*.
28. Pulido, *Environmentalism and Economic Justice*.
29. For a full discussion of this idea, see Spivak, *Critique of Postcolonial Reason*.
30. The model here, of course, is subaltern studies in India. See Guha and Spivak, *Selected Subaltern Studies*.
31. Mitman, "Reflections on the Plantationocene."
32. Yusoff, *A Billion Black Anthropocenes or None*.
33. For fossil fuel deaths, see Vohra et al., "Global Mortality." For internally displaced persons, see United Nations High Commission on Refugees, "Climate Change and Disaster Displacement."
34. Malm and the Zetkin Collective, *White Skin, Black Fuel*.
35. Malm, *How to Blow Up a Pipeline*.
36. For a concise survey of tactics deployed by radical movements, see Sovacool and Dunlap, "Anarchy, War, or Revolt?"

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