

# **Emancipations: A Journal of Critical Social Analysis**

Volume 2 Issue 1 Ecological Marxism

Article 8

February 2023

# A Map to Ecosocialism

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#### **Recommended Citation**

Armiero, Marco; Swyngedouw, Erik; De Angelis, Massimo; Barca, Stefania; Chattopadhyay, Sutapa; Navarro Trujillo, Mina Lorena; Steinberg, Theordore; Pellow, David N.; and Engel-DiMauro, Salvotore (2023) "A Map to Ecosocialism," Emancipations: A Journal of Critical Social Analysis: Vol. 2: Iss. 1, Article 8.

DOI: https://doi.org/10.55533/2765-8414.1048

Available at: https://scholarsjunction.msstate.edu/emancipations/vol2/iss1/8

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A Map to Ecosocialism
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#### Introduction

#### Marco Armiero<sup>1</sup>

Explaining the reasons for the making of his *Keywords*, Raymond Williams wrote that in the common language we often say that we do not understand each other because we do not speak the same language. This should not be interpreted in a literal sense, rather as a metaphor to indicate radically diverse sets of values and meanings.

I have always been struggling with the tension between the need to define and be clear about meanings and the radical openness of leaving things unsettled, some might say confused. In academia, for instance, the obsession with defining often mirrors a narrow gardening of disciplinary identities. In that sense, defining is more a matter of drawing borders and checking intellectual passports at the frontiers, regulating who can enter and with which credentials. This practice of defining as confining is not alien to social and political movements. There is an expression in my native tongue -- that is in Italian --, saying that especially on the left we often demand "the blood test" of our possible allies to be sure that we truly share the same visions. How can we save the need for clarity and identity without ending up in a gallery of mirrors in which we project only an infinite replication of ourselves? I am not proposing to look less ecosocialist in order to blend better with the crowd. The point is not watering down our convictions but not using them as a tight mesh filter separating us from the broader movement trying to change the world.

This experiment then does not have the ambition to establish some kind of ecosocialist canon; I do not wish to provide a toolkit for quick blood tests establishing whether one can be considered ecosocialist or not. I have envisioned this contribution as a sort of map; we invite the readers to explore it, to move between different concepts, to make connections of their own, following unexplored paths. The concepts

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included below should be treated as places of interest on a map. The description can entice the reader but it cannot substitute for the experience of visiting it, therefore changing it through that very experience.

Swyngedouw revisits class through the lens of the current climate crisis. De Angelis proposes his idea of commons and commoning as revolutionary practice. Barca's forces of reproduction bring the issue of heteropatriarchy at the core of the ecosocialist project. Steinberg illuminates the power of the market in the making of capitalist ecologies. Chattopadhyay connects the capitalist commodification of nature to the colonial project of annihilation of Indigenous societies and cultures. Engel di Mauro reminds us of the need for an ecosocialist theory and understanding of the soil. Pellow tells us that capitalism cannot be understood but as racial capitalism. Armiero proposes the concept of the Wasteocene as a tool to detect the wasting relationships producing wasted people and ecosystems. Navarro Trujillo unpacks the power of interdependence as a radical theoretical and practical alternative to individualization.

Our wish is that *Emancipations* will continue this as a collective project, commissioning a series of maps like this one on ecosocialism. Not to be conclusive or definitive, but rather in the spirit that the work will never be done. Because we will always need to keep searching.

## Class atmospheres

#### Erik Swyngedouw<sup>2</sup>

The trouble with class, in its classic Marxist expression, is its invisibility. One cannot encounter class directly; it can be discerned only in a slanty manner, either through the medium of money through which the class relation is reproduced or through

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the symptoms the class relation generates, such as social conflict, uneven socioecological development, and ecological catastrophes. Indeed, a Marxist politicalecological class analysis would demonstrate how our living atmospheres are made and
remade through the class relation. Consider, for example, how capital accumulation
quite literally produces new atmospheres and climates, generates new socio-ecological
configurations, and produces new forms of non-human constellations, with highly
uneven and conflicting outcomes.

As Marx pointed out a long time ago, the class relation is structured by the ownership/control of non-human stuff that, combined with living labour, produces an expanding set of commodities, organized through the medium of money. It is through this circulatory and metabolic process that money is turned into capital. Capital is understood here as the self-expanding process of surplus value production upon which the revolutionary dynamics of capitalism are predicated. The atmospheres of life, therefore, are both the substratum upon which capital accumulation is predicated and its product.

While 19th and 20th century capital circulation, particularly in the global north, was primarily structured through immediately lived and visible class configurations, i.e. proletarians and capitalists organizing the factory system with its own socio-ecological atmospheres so vividly described by F. Engels in *The Condition of the Working Class in England*, these production based class relations have largely decamped to the Global South, most notably China and India. At the same time, the money-relation and the associated commodification of everything accelerated to an unprecedented and thoroughly planetary level. The universalization of money as the key articulator of socioecological relations has now permeated every nook and cranny of the earth. Not only is the insertion of all forms of non-human matter in the money relation predicated upon deepening the class relation, human bodies themselves are increasingly immersed in the money relation. Consider, for example, how IT media and social platforms cash in freely on the mobilization of the most intimate and affective registers of human life. The platform capitalism that nurtures contemporary circulations of capital is indeed

predicated upon both deepening the class relation while inserting both humans and non-human stuff within its networked metabolic dynamics. It is not difficult, therefore, to demonstrate a perfect correlation between capital accumulation (economic growth), ecological transformation, and socio-ecological differentiation.

The commodification of everything and the associated private ownership of non-human stuff reproduces and solidifies the class configuration through which the appropriation, transformation and allocation of non-human goods are organized. The environmental condition, therefore, is deeply embroiled in the class dynamics of capital circulation and accumulation. These class dynamics, in turn, mold and interact with other drivers of inequality structured around wealth, age, gender, sex, or ethnicity. The class relation, therefore, is central in producing the combined and uneven socioecological catastrophe that marks the contemporary environmental condition.

## **Further Reading**

Burkett P. (1999) *Marx and Nature: A Red and Green Perspective*. New York: St. Martin's Press.

Engels, F. ([1845] 2009) *The Condition of the Working Class in England*. Oxford: Oxford University Press.

Harvey D. (1996) Justice, Nature and the Politics of Difference. Oxford: Blackwell

Saito, K (2017) *Karl Marx's Ecosocialism: Capital, Nature, and the Unfinished Critique of Political Economy.* New York: Monthly Review Press.

Smith, N. (2010) *Uneven Development Nature, Capital, and the Production of Space – 3<sup>rd</sup> edition*. London: Verso.

#### Commons

## Massimo De Angelis<sup>3</sup>

Commons are social systems that emerge when a plurality of people comes together in processes of social cooperation through which they share resources, and decide collectively through formal and informal methods what are the "measure of things" of their collective action, that is the what, the where, the how, the how much, the who, the when, the why of their social labour, or commoning.

Although the literature distinguishes commons in different ways depending on the nature of the resources shared (natural resources as the classical case in Ostrom), but also knowledge, infrastructure, building, books, cyberspace or whatever (see Bollier 2021)), understanding commons as systems allows emphasizing the fact that the commons is not just a type of resource shared. Commons social systems comprise three elements (a commonwealth, a community of commoners and their social relations), and a praxis of commoning, of doing in common, including the self-organizing act of governing the relation to the commonwealth and non human nature and the relations to one another among commoners. This means that it is not the intrinsic characteristics of the common goods that determine the possibility of the commons, but rather it is the capacity of the commoners to cooperate and organize their social labour in alternative ways and following different logics, sensibilities and rationalities than that of the private and public logics (De Angelis 2017).

Recent decades have witnessed Indigenous communities and new commons systems becoming more visible and innovative around the world in a diversity of contexts. Commoners can be found subtracting resources from capital systems, and inserting them into processes of collective production and cultures based on value

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practices, which, rooted in the specific contexts, are participatory and deeply democratic. The aims are the welfare of the commoners, social utility and environmental sustainability. This emergence of contemporary collective action around the commons has occurred in two interconnected ways. First as a survival response to the enclosures and multiple crises of neoliberalism and a refusal to submit to exploitative technologies and practices. Second, they also emerge as manifestations of struggles for novel social organizations which favour empowerment of co-producers, non-alienated cooperation, social utility, and ecological transformation. The commons function in both spheres of social reproduction and production. In the first, they involve new forms of social organization in the production of food, housing, energy, health care, education, arts and culture. In a moment of deep social emergencies, like when hurricane Katrina struck New Orleans in 2005, or deep economic crisis hit Greece in the aftermath of the financial crisis of 2007-2008, or during the Covid19 pandemic in 2020, commons seems to emerge rapidly to address social needs. Commons have also developed and led to the transformation of businesses, both in manufacturing and services.

The commons movement involves participatory exploration of new technologies and forms of cyber cooperation – open source software production, peer-to peer cooperations such as Wikipedia, and open-source machines. These multisided spaces of cooperation are potentially transformative; offering an alternative model of production to capitalism and authoritarian state systems. Although there is the danger that the latter systems coopt the commons and shift costs of social reproduction on to them, the commons, and the related notion of the common, remain the kernel around which a broad project of radical emancipation, deep democratization and ecological transformation can be constituted. Commons, together with social movements are faced with the task of rebuilding the fabric of social reproduction and readdressing the qualitative and quantitative aspects of social metabolism while setting a limit on capital's drive for endless accumulation.

### **Further Reading**

Bollier, D. (2021) *The Commoner's Catalog for Changemaking*. Great Barrington: Shumacher Center for a New Economics.

De Angelis, M. (2017). *Omnia Sunt Communia. On the Commons and the Transformation to Postcapitalism.* London: Zed Book

Ostrom, E. (1982). *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge, Ma: Cambridge University Press

### **Forces of Reproduction**

#### Stefania Barca4

The planetary ecological crisis the world is experiencing is the latest chapter in the global history of heteropatriarchy: industrial capitalism. This has been based on the development and colonial expansion of the co-called forces of production, i.e. (male-coded and predominantly white) science and industrial technologies. Being part and parcel with the productive forces (via wage relations), but also being itself part of nature, industrial labour embodies the ecological contradiction of capitalism. However, this contradiction is also embodied by what socialist ecofeminism calls meta-industrial labour, or the forces of reproduction, i.e. the mostly unwaged work of life-making, socialization, and caring.

As eco-Marxist theory has long argued, industrial capitalism tends to deplete and degrade the conditions for its own reproduction – the soil and the worker, in Marx's own

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words. Socialist ecofeminism, however, adds a consideration of how capitalist heteropatriarchy is also built upon the denial and backgrounding of meta-industrial labour. Due to its need for appropriating reproductive and care work as cheaply and/or as efficiently as possible, capitalism tied itself to racism and sexism, making sure that meta-industrial labour was gendered, racialized, naturalized (i.e. not seen as labour but as biological predispositions) and considered as purely instrumental to the unlimited expansion of material production and exchange value. Linking the mechanistic view of nature in modern Europe with witch-hunting, colonial expansion, and the enclosure of the commons, Marxist ecofeminists understand environmental degradation as part and parcel with capitalist appropriation of human and nonhuman reproductive forces, and with the systematic devaluation of subsistence, regeneration, restoration, and care work.

Built upon feminist political economy, socialist eco-feminism sees the ecological crisis as deriving from the structural merge of western colonialism and capitalism with heteropatriarchy. This allows to identify the different forms of work that are constantly mobilized and subsumed by capital, and thus the different kinds of political subjectivity that are its potential gravediggers. Socialist ecofeminism highlights how the feminized, racialized and mostly unwaged forces of reproduction are never entirely part of capital: while performing the essential work of re/producing life on earth, they tend to defend and reclaim the material conditions of reproduction by resisting accumulation, extraction, and commodification. In other words, they hold a potential to subvert capitalist/industrial heteropatriarchy via commoning.

To represent a true revolutionary perspective, I argue, eco-socialism cannot simply mean a centrally planned (rather than market-led) ecological modernization, i.e. one oriented towards a complementarity of ecological efficiency and redistribution of wealth, but it needs to put reproduction at the center of political economy, liberating it from its subordinate, instrumental position vis-à-vis production. In other words, eco-socialism needs to re-structure the relations between production, reproduction, and ecology in anti-patriarchal terms. Considering the planetary scale of ecological crisis,

moreover, such revolution can only be accomplished via a historical convergence between industrial and meta-industrial labour on the international level.

## **Further Reading**

Barca, S. (2020). Forces of Reproduction. Notes for a Counterhegemonic Anthropocene. Cambridge: Cambridge U.P

Mellor, M. (1996). Ecofeminism and ecosocialism: dilemmas of essentialism and materialism. In T. Benton, ed., *The greening of Marxism*. New York, NY: Guilford Publications, pp. 251–67.

Merchant, C. (2005). Radical ecology: the search for a livable world. London: Routledge

Salleh, A. (2017 [1997]). *Ecofeminism as politics: nature, Marx and the postmodern*. 2<sup>nd</sup> edition, London: Zed Books.

Salleh, A. (1991). 'Eco-socialism/ecofeminism.' *Capitalism Nature Socialism* 2(1): 129-134.

### Indigeneity

## Sutapa Chattopadhyay<sup>5</sup>

The nexus of knowledge, power and institutions of exchange and governance have altered, abused and commodified nature for accumulation, which has always impacted the land-based people's direct dependance on their surroundings for survival (Castree 2003). Nature is a production function that is in constant dissent with profit-

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driven production methods (Gadgil and Guha 1992). For instance, if forced or detached from their land, the Apache people believe their blood is drawn from their bodies (Miller 1996:286). Western thought profoundly programmed mainstream societies towards reducing nature and humans as two separate elements of many elements leading to a theoretical disengagement of nature and people (O'Connor 1998:21). Historically American Environmentalism is a "full stomach phenomenon"; a consequence of economic prosperity through which "wilderness areas and clean air" appear to be treasured as basic material needs to be satisfied (Nash 1982). The paradigm shift from First World Environmentalism to Third World Environmentalism marks the environmental histories of two democracies, with one comfortably couched in a postindustrial economy, while the other edging forward in an early industrial agrarian economy. In early capitalism, feudal lords expropriated the commons from the nobility which is congruent with capitalistic practices in post-colonial spaces in the manifestations of economic progress through deprivation of Indigenous communities. For centuries, global Indigenous communities have lived within a legacy of environmental dispossession. Direct forms of dispossession result in physical separation from land. All over India, the Adivasi population were subject to profound dispossession in the form of resource degradation and community displacement from pre-colonial time onward. Similarly, in Canada, three decades of polychlorinated biphenyl and other chemical release into the St. Lawrence River near the Mohawk community of Akwesasne has contaminated their subsistence fishery, impacting the health of lactating women and relations with their nursing babies, as well as the overall health of the community. Indirect forms of environmental dispossession sever the relationship that Indigenous people have with the land through processes of acculturation and assimilation (LaDuke 1999). Today, many young and middle-aged Adivasi people, motivated by abject poverty and following the attraction of the urban lifestyle, move to cities for waged work, swelling the "impoverished informal proletariat" (Bremen 2002). The cascade of exploitation was conceptualized through Marxist primitive accumulation ([1867] 1977) as a precondition to capitalist development, which Rosa Luxemburg (1968) confirmed is prerequisite to ongoing dispossession for wealth generation.

Today with long term loans from the International Monetary Fund and World Bank, this process of fencing commons or "new enclosures" is continuing to threaten rural livelihoods with the externalities of environmentally degenerative industries, mining, and the like (Linebaugh 2009). Indigenous people are victims of poverty, systemic discrimination, unemployment, underemployment and function largely as the "relative surplus laboring population" disciplined, punished, and anguished, rendering forces of domination visible. Contemporary sustainable development reflects a method of capital accumulation that embodies the rules of the game of neoliberalism that does not enter in conflict with wealth appropriation but is fundamentally an element of it and enables it.

### **Further Reading**

Bremen, J (2002) *The Laboring poor in India: patterns of exploitation, subordination, and exclusion.* New Delhi: Oxford University Press.

Castree, N (2003) "Commodifying what nature?" *Progress in Human Geography*, 27(3), 273–297.

Gadgil M, and Guha R. (1992) *The Fissured Land: An Ecological History of India.* Oxford University Press: New Delhi

O'Connor, J (1988) O'Connor, J. (1988) "Capitalism, Nature, Socialism: A Theoretical Introduction." *Capitalism Nature Socialism 1* (1): 11–38.

LaDuke, W (1999) *All our relations: Native struggles for Land and Life.* Cambridge MA: South End Press.

Luxemburg, R. (1968). The accumulation of capital. New York: Monthly Review Press.

Linebaugh, P. (2009) *The Magna Carta Manifesto: Liberties and Commons for all.* Berkeley, University of California Press.

Miller, H. R. (1996) *The Apache* (North American Indians). Kidhaven Press.

Nash, R. (1982) Wilderness and the American Mind, Third edition. New Haven: Yale University Press.

### Interdependence

## Mina Lorena Navarro Trujillo<sup>6</sup>

The critical times we are facing place us in the urgent challenge of dismantling the Cartesian vision of capitalist, patriarchal, heterosexist, racially structured modernity, which has separated different spheres of life into hierarchical dualisms: culture-nature, mind-body, reason-emotion, economy-politics, among many others. These separations have operated as powerful devices of domination, exploitation and control to produce hierarchies and inequalities on the basis of certain differences.

In this short piece, I trace and rescue the diverse contents of the notion of interdependence as a way to nurture a relational and complex look at life that goes beyond the separations of life managed in capitalist terms. In particular, I briefly present what is proposed by certain feminisms, ecologies and studies on the production of the commons.

In autonomous feminisms, Marxist, multispecies and emancipatory feminist economics, the notion of interdependence is deeply connected to the aim of unveiling how the reproduction of human and more-than-human life cannot be thought through the modern, anthropocentric and androcentric fantasy of individuality and self-sufficiency. In other words, it rejects the idea of the human being -- in particular, the white, bourgeois, male, adult and heterosexual subject- as the measure and the center of all that exists. The myth of the rational and self-sufficient individual is one of the most perverse, dangerous and unsustainable narratives of modern Western thought. Its construction has been erected on the denial of the complex relationships of interdependence, cooperation and mutual aid that human beings weave with other beings of the same and other species, and on the naturalization of the conditions of

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inequality, exploitation and domination of nature, women and colonized peoples, which capitalism has generated.

For its part, political ecology, as developed for instance in the world ecology approach (Moore, 2020) and as it is situated and enunciated from Latin America, is interested in illuminating how, beyond the hierarchical dualism between society and nature, life is a contingent co-management of interdependent relationships intricately linked and intertwined at the intra and trans-species level. Interdependence is an ecological condition and requirement of the sustainment of Earth's web of Life (Linsalata, Navarro, Cornejo, Gutiérrez and Machado, 2022) (Moore, 2020). "All members of an ecological community are interconnected in a vast and intricate web of relationships, the web of life. Their essential properties and, indeed, their very existence derive from these relationships. The behavior of each living member within an ecosystem depends on the behavior of many others. (...) Understanding ecological interdependence means understanding relationships" (Capra, 1999: 196-197).

Finally, studies on the production of the commons seek to account for how diverse community networks organize their relationships of human and more than human interdependence to collectively produce and enjoy means of existence and use values to ensure the satisfactory reproduction of life.

The theory I have just presented is at the core of the Seminario de Entramados Comunitarios y Formas de lo Político, the academic/activist community to which I belong in Mexico. We have been documenting and accompanying a wide and varied range of organizational processes and grassroots struggles that place at the center of social antagonism the defense of material and symbolic wealth produced and/or utilized in common against the logic of value extraction. Looking at interdependence from this perspective implies to think of the production of the commons as a pattern or mode of organization of other forms of relationships oriented to guarantee inter and intraspecies sustenance in the fabric of life.

These diverse traditions of thought all share a radical critique of the fantasy of individuality and Cartesian dualism while focusing on the reproduction of life. They aim to make visible the dense and complex web of relationships between energies and material, emotional and symbolic processes that take place and unfold in the spheres of human and non-human activities in order to guarantee the existence for life on the planet.

## **Further Reading**

Capra, F. (1999). *La trama de la vida. Una perspectiva de los sistemas vivos.* Barcelona: Editorial Anagrama.

De Angelis, Massimo (2018). "Revolución Social y Producción de lo Común, *Revista El Apantle*, número 3, México: Sociedad Comunitaria de Estudios Estratégicos.

Federici, Silvia y Caffentzis, George (2019). Comunes contra y más allá del capitalismo, *Producir lo común. Entramados comunitarios y luchas por la vida* (pp. 45-58). Madrid: Traficantes de Sueños.

Linsalata, Lucia; Navarro, Mina Lorena; Cornejo, Amaranta; Gutiérrez, Raquel y Machado, Horacio (2022), Interdependencia y vida en común, Ecología Política. Cuadernos de debate internacional, Barcelona: Fundación ENT, Grupo de Trabajo de Ecología Política de Clacso, Icaria Editorial.

Mies, Maria (2019). *Patriarcado y acumulación a escala mundial.* Madrid: Traficantes de sueños.

Navarro Trujillo, M. L. y Gutiérrez Aguilar, R. (2018). Claves para pensar la interdependencia desde la ecología y los feminismos, *Revista Bajo el Volcán*, número 28 (pp. 45-57). Ciudad de Puebla: ICSyH, BUAP. Recuperado de: <a href="http://www.apps.buap.mx/ojs3/index.php/bevol/article/view/1113">http://www.apps.buap.mx/ojs3/index.php/bevol/article/view/1113</a> (20.11.2020)

### **Market Dependence**

## Ted Steinberg<sup>7</sup>

Although capitalism is often conflated with market relations, market *dependence* is what forms the core of the system. Market dependence extends beyond the concept of exchange to encompass a state in which people have no choice but to turn to the market to reproduce the conditions of their lives. In more colloquial terms, market dependence means that people—all people including workers, employers, and so on—must make money or go under.

The beginnings of this abject dependence on the market famously emerged in England starting in the latter part of the fifteenth century when capitalist farmers interfered with the subsistence of peasants. Peasants maintained a close working relationship with the land organized to satisfy human need, typically by tilling grain and herding livestock. Seeking to capitalize on the growth of the market for wool, in part the product of the development of nearby textile mills, the capitalist farmers drove livestock onto the peasants' land, causing them to flee after a brutal process of dispossession, and replacing their mixed husbandry with a prototype of factory farming: enterprises devoted exclusively to raising sheep. The propertyless, instead of interacting directly with the land, were now dependent on markets for survival and had no choice but to sell their labor power and buy their subsistence. A major fracture had occurred in human interaction with the natural world.

The capitalist farmers, for their part, not only depended on markets to buy labor power, they also found themselves dependent on the market in land, as soil was turned into an abstraction that was divvied into parcels for sale. To meet the financial obligations incurred in the purchase of land on the market, farmers had little choice but

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to produce competitively for profit. Increasingly that encouraged the development of monocultures, an agroecosystem in which a single species is grown to satisfy market demand, and a form of agriculture that threatens biodiversity and is prone to disease.

Market dependence brings with it various imperatives with major ecological implications including the need for capitalists to compete, accumulate, and profit maximize to keep afloat. These imperatives brought constant expansion into new territories and domains of life, underwriting stunning environmental transformation and economic growth.

The most obvious evidence of that expansion has happened in the period since the end of the Second World War when capitalism evolved into a world-wide phenomenon under oversight of the United States, which came to dominate global financial institutions such as the World Bank and the International Monetary Fund. In the 1980s, these institutions imposed market discipline on poor debtor nations which, seeking to pay back loans, were forced to produce more exports—timber, fish, minerals—to settle accounts but at enormous cost to the local environment. Likewise, the tendency of market dependence to impose its imperatives on new areas of life is seen in the emergence of bioprospecting as well as massive tree plantations, which developed as natural forest cover across the globe has been exhausted. These plantations have evicted local peoples and replaced them with trees bred to grow quickly and, in a sense, trees ate people, akin to early modern England where sheep ate them.

## **Further Reading**

Brenner, Robert. "Property and Progress: Where Adam Smith Went Wrong." In *Marxist History-writing for the Twenty-first Century*, edited by Chris Wickham, 49–111. Oxford: British Academy, 2007.

Panitch, Leo, and Sam Gindin. *The Making of Global Capitalism: The Political Economy of American Empire*. London: Verso, 2012.

Steinberg, Ted. *Down to Earth: Nature's Role in American History*. 4<sup>th</sup> ed. New York: Oxford University Press, 2019.

Wood, Ellen Meiksins. The Origin of Capitalism: A Longer View. London: Verso, 2017.

Worster, Donald. "Transformations of the Earth." In *The Wealth of Nature:* Environmental History and the Ecological Imagination, 45–63. New York: Oxford University Press, 1993.

#### Race

#### David N. Pellow<sup>8</sup>

Race is a social category—with no basis in biology or genetics—that reflects struggles over political, economic, and cultural interests, and is routinely contested and remade. And while race is itself a generative concept, *racism* is the phenomenon that reflects *the work* that race does. Racism is not limited to the acts of individual bigots; it is a centuries-old practice perpetrated on a massive scale by institutions, corporations, and governments every day, which contributes to "group-differentiated vulnerability to premature death" (Gilmore 2007). Racism is also a fundamental driver of local, national, and global ecological crises, and a primary cause of disease and illness within human societies (Pirtle 2020).

Cedric Robinson (1983) argued that racism is a structuring logic of capitalism—racial exploitation and capital accumulation are mutually constitutive. A focus on racial capitalism necessitates a reckoning with the continued legacies and logics of imperialism, enslavement, primitive accumulation, and colonization—all of which played

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definitive roles in shaping the modern world. In other words, racism is central to capitalism's past and present. And since capitalism produces ecological harm as a matter of course, we must recognize how racism is linked to those processes and results. People of color and Indigenous populations are routinely faced with environmental racism—the amplified threats to their livelihoods, lands, cultural practices, and health as a consequence of racial capitalism's everyday functions, which are propelled in large part by the devaluation of those communities (Pulido 2017).

Recent scholarship has seen a proliferation of proposed terms that seek to reflect defining characteristics of our modern epoch. For example, the *plantationocene* is meant to signal the dominance of monocrop industrial agricultural systems that wreak havoc on human and nonhuman populations through extraction and enslavement. However, what tends to get left out of this important concept is the centrality of racism in the plantation economy and in the making of the modern world. Fortunately, scholars from the field of Black Studies have long focused on these linkages, offering deep historical readings of how enslaved peoples of African descent worked with no pay under brutal conditions, but also how they carved out spaces where they grew their own food, thus revealing how Black people survived the horrors of white supremacy through creative and collective means that occasioned their engagements with a range of other species—both plant and animal (Murphy and Schroering 2020). This work demonstrates how racial capitalism is inextricably connected to the everyday lives of people of color, and how people engage in world-making and world-sustaining practices to create multispecies spaces of justice and care (Hosbey, Lloréns, and Roane 2022;).

The very idea of race is rooted in ideologies of social difference that reflect ways of thinking about nature that are based in systems of thought that embrace racism, heteropatriarchy, and human dominion over ecosystems. And since the production of human and racial difference is central to the production of value within capitalism, which results not only in the perpetration of environmental racism and climate injustices but also the broader socioecological crises of global anthropogenic climate change, then any efforts to address the environmental threats to planet Earth will require

confrontations with structural racism. Thus the work that racism does results in harms to people of color and our global life support systems, so the work that scholars and activists must do to address these problems first requires a recognition of those entanglements and intersections.

### **Further reading**

Gilmore, Ruth Wilson. 2007. *Golden Gulag: Prisons, Surplus, Crisis, and Opposition in Globalizing California*. University of California Press.

Hosbey, Justin, Hilda Lloréns, and J.T. Roane. 2022. "Introduction: Global Black Ecologies." *Environment and Society: Advances in Research* 13: 1–10.

Murphy, Michael Warren and Caitlin Schroering. 2020. "Refiguring the Plantationocene: Racial Capitalism, World-Systems Analysis, and Global Socioecological Transformation." *Journal of World-Systems Research* 26(2) 400-415.

Pirtle, Whitney N.L. 2020. "Racial Capitalism: A Fundamental Cause of Novel Coronavirus (COVID-19) Pandemic Inequities in the United States." *Health Education & Behavior* 47(4) 504–508.

Pulido, Laura. 2017. "Geographies of race and ethnicity II: Environmental racism, racial capitalism and state-sanctioned violence." *Progress in Human Geography* 41(4): 524-533.

Robinson, Cedric. 1983. *Black Marxism: The making of the black radical tradition*. University of North Carolina Press.

#### Soil

## Salvatore Engel-Di Mauro<sup>9</sup>

Karl Marx's much-celebrated passage on the twin capitalist destruction of worker and soil (Marx 1976, 637-638) is among the main clues from Marx's work out of which Eco-Marxism has been wrought. Yet the Eco-Marxist imaginary remains unable to account for actual soils. Soil is a largely allegorical entry point to update the critique of capitalist relations with the question of ecology. Eco-Marxism offers no theory of soil formation or development, nor much interest in applying a Marxist method (dialectical and historical materialism) to the study of soils in themselves or any other biophysical process.

On the other hand, Eco-Marxists have alluded to biophysical dynamics to great effect in critiquing capitalism, thus contributing to renewing Marxism in core capitalist countries. Nevertheless, using biophysical processes as a gateway to examine social processes should not be confused with attentiveness to biophysical processes as such. Marxist approaches are undeniably crucial to explaining and changing people-environment relations and scientific practices, among others, but theorising and acting on what we do or think is not the same as interacting with a myriad other beings or processes in the rest of nature.

Thus understood, a Marxist framework to study soils already exists. The Marxist revolutionary Amílcar Cabral seems the first to have shown the way. Following Engels' insights in the fragmentary *Dialectics of Nature*, Cabral theorised soil formation in terms of contradictions among atmospheric and lithospheric forces giving rise to the weathering effects that, along with the influences of organisms (including humans), enable soil formation and development. Another and similar model stems from the recommendations of Levins and Lewontin, apparently unaware of Cabral's

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contributions, to employ the Marxist method in the biophysical sciences as a set of guiding principles. Applied to soils, they could be translated into soils being composed of multiple opposing and mutually transforming forces (minerals, organic materials, organisms, water, air) but also always part of a greater ecological whole. The characteristics of soil components (for example, calcium levels) derive from becoming part of and interacting with other processes (e.g., calcium-rich minerals, soil water, microbial populations) to create a soil (integrative whole at distinct levels of integration). Soil erosion can be regarded as both effect of capitalist farming and cause of deleterious changes in farming productivity (interpenetration of opposites). In all this, soils are varied, between and within, and ever changing as their components change each other through constant interactions, bringing about as well the transformation of soil into sediment (quantitative shifts bringing about qualitative change and vice versa), which nourishes the creation of other soils (negation of negation).

The task of applying Marxism to the study of soils can be conceptualised as two interdependent kinds of research directions, one focusing on the humanity-soil relationship and another on soil dynamics beyond human impact effects. The first is about linkages between capitalist relations and changes in soils traceable to human impacts. This necessitates knowledge of the multiple and interacting nonhuman factors that lead to soil formation, destruction, or alterations. Linking capitalist relations to human impacts on soils therefore always implies relying on studies on the nonhuman forces that contribute to the creation, alteration, and disappearance of soils. Such studies comprise a second direction to a Marxist framework on soils, and Cabral's work remains the main and underappreciated fount out of which to develop and apply an Eco-Marxist understanding of soils.

#### **Further Reading**

Cabral, Amílcar. *Estudos Agrários de Amílcar Cabral*. Instituto de Investigação Científica Tropical, Instituto Nacional de Estudos e Pesquisa, 1988.

César, Filipa. "Meteorisations. Reading Amilcar Cabral's Agronomy of Liberation." *Third Text* vol. 32, no. 2-3, 2018, pp. 254-272.

Richard Levins and Richard Lewontin, *The Dialectical Biologist*. Harvard University Press, 1985.

Marx, Karl. 1976. Capital, Volume 1. Penguin, 1976.

Schwartzman, David. "Althusser, Dialectical Materialism and the Philosophy of Science." *Science & Society*, vol. 39, no. 3, 1975, pp. 318–330.

Swidler, Eva-Maria. "The Social Production of Soil." *Soil Science*, vol. 174, 2009, pp. 2-8.

#### Wasteocene

#### **Marco Armiero**

The Wasteocene is part of the blooming of new terms and concepts born within and against the global narrative of the Anthropocene. As it is well known, the Anthropocene is the age of humans, that is, the age in which humans have become agents in the transformation of the bio-geo-chemical cycles of the planet. Many radical and especially Marxist scholars, including myself, have expressed their dissatisfaction with the Anthropocene narrative; although the critiques have been diverse, I would argue that the main issue is the weak acknowledgment of power inequalities within the global narrative of the Anthropocene. The "we the humans" of the Anthropocene flatten social and racial inequalities; even history in itself, as the ecological debt theory has proved. For this reason, other names for the new epoch have been proposed including the Plantationocene and the Capitalocene, in an effort to unveil the histories of oppression and the unequal distribution of responsibilities.

The Wasteocene is part of this creative reaction to the Anthropocene. It is not the age of waste as a thing; it is not a fancy academic word to speak of the dirtiness of our

cities. I define the Wasteocene as the age of wasting relationships producing wasted people and ecosystems. It does neither propose a universal we nor indulge in a reification of the socioecological crisis. Focusing not on waste but on wasting relationships, the Waseocene does not chase techno-fixes but socioecological transformations. The Wasteocene concept provides useful tools to analyze the crisis as well as to imagine alternatives. The core of the Wasteocene is the assumption that wasting relationships produce profit for a few through extraction and othering. Waste is not an externality of an otherwise perfect system; wasting -- that is, sorting out who and what has value -- is the very way in which privilege is maintained and reproduced. Racial capitalism is a perfect -- although not unique -- exemplification of the Wasteocene logic that produces both antiseptic environments and dumps, gated communities and slums, paradises and hells.

Thinking through the Wasteocene allows us to see the wasting relationships that otherwise remain completely invisible. In fact, wasting relationships produce two different kinds of toxicity: the embodiment of capitalist relations within the fabric of life, making profits through toxic ecologies— what Banerjee (2008) has called necrocapitalism -- and the generation and maintenance of toxic narratives aiming to normalize the Wasteocene while silencing its injustice. For an ecosocialist project, employing the category of the Wasteocene implies to unveil the double toxicity of wasting relationships, detecting the toxic narratives silencing injustice, and analyzing the production of wasted communities as a structural component of racial capitalism instead of a dysfunction in the system. As the Anthropocene has mobilized research into the geosphere, in a quest for the "golden spike" that can indicate the starting of the new age, Wasteocene looks into the stratigraphies of the organosphere, the sphere of life, researching the traces of the wasting relationships within the texture of human and non human bodies.

But looking into the Wasteocene means also exploring the multifold experiences of sabotage and rebellion born within and against the wasting relationships. I have argued that the antidote to the wasting relationships is commoning, that is the ensemble

of practices reproducing commons and its institutions. While wasting relationships produce profit for a few through othering and extraction, commoning generates communities through sharing and caring.

## **Further Reading**

Armiero, M. (2021). *Wasteocene. Stories from the Global Dump*. Cambridge: Cambridge University Press.

Davis, J. Moulton, A., Van Sant, L., Williamset, B. (2019). "Anthropocene, Capitalocene, . . . Plantationocene? A Manifesto for ecological justice in an age of global crises." *Geography Compass* 13(5):1-15

Moore, J., ed. (2016). Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism. Oakland (CA): PM Press