

Nature/Culture

re:articulate

Introduction

When the word ‘culture’ first entered the English language, its “primary meaning was (...) in husbandry, the tending of natural growth”. In fact, in all its early uses, ‘culture’ was “a noun of process: the tending of something, basically crops or animals”.¹ Raymond Williams, one of the central thinkers of Cultural Studies, reminds us of the origins of this concept of ‘culture’ in *agri-culture* in order, first, to underline that ‘culture’ is not necessarily the opposite of ‘nature’, but that it can also be a way of relating to it, and, second, to emphasize that the study of ‘culture’ is not constrained to representations of the world in texts and images, but that culture can be seen as a practical way of dealing with the material world. Consequently, the central questions of Cultural Studies are concerned with “the relations between ‘material’ and ‘symbolic’ production”: how does what we *do* to nature relate to what we *think* about nature?²

When it comes to ‘nature’, Williams highlights the *historicity* of both our ideas of nature and nature itself, as well as the *social* character of the relation between the two. To separate culture from nature into an autonomous realm is a modern invention, Williams argues.³ Even more importantly, concepts *of* and relations *to* the natural world are by no means universal, but contingent on historical conditions, and specific to different groups of people. It is therefore not enough to speak of a uniform Anthropocene, as it is currently *en vogue*, if we want to understand the uneven history of humans’ relation *to* and impact *on* their natural environment.⁴

Of course, there is little that Cultural Studies can say about the chemical and physical causes and the biological and medical consequences of climate change and multispecies extinction. Cultural Studies can, however, contribute to understanding the norms and values, the ideologies and institutions, the principles and frameworks that inform the relationship of humans to the natural world. At the present moment, Cultural Studies thus asks: “How is the climate crisis represented? On

whose terms is the crisis communicated? On what, and from where are the dominant narratives around climate change centered? And from which direction are dissenting voices interrupting dominant narratives?”⁵

What Cultural Studies’ understanding of culture and nature urges us to consider, is that cultures not only relate to nature in contingent ways, but that cultures produce natures in their own specific ways: cultures transform the world from landscapes to the microbiome, but in variable ways. Therefore, Cultural Studies aims “to contextualize the (current climate) crises within a history of colonization, foreign policy, global economic disparities and racialized injustices”.⁶ In order to understand the relationship of humans to nature, we have to understand the social relations that humans form amongst them, and the images and ideas of nature that result from this. At the same time, Cultural Studies analyzes how changing relations between humans and non-human nature, for example, in changing forms of agriculture, transform ideas and images about culture and nature.

The End of Agri-Culture

There is widespread agreement that, today, the relationship of humans to nature is decisively shaped by the prevailing economic world order. Consequently, it has been suggested to speak of a Capitalocene, rather than an Anthropocene.⁷ Capitalism is commonly understood to have emerged through the extension of commercial networks (globalization), the growth of cities (urbanization) as well as coal and oil powered production (industrialization). Yet, the decisive change in humans’ relation to nature emerged in the English countryside long before the Industrial Revolution. Indeed, *agrarian* capitalism amounted to “a complete transformation in the most basic human relations and practices, a rupture in age-old patterns of human interaction with nature”.⁸

During the transition from feudalism to capitalism, social property relations were changed decisively. Peasants used to have direct access to nature and its products, though they usually had to surrender a certain part of their product to social elites who wielded political, military or religious power. Customary laws ensured that peasants could not lose ‘their’ land nor access to ‘common’ lands, which protected them from the pressures of competition by enabling a basic level of subsistence; they did not *own* the land, however, but the right of *usufruct*, that is, the right to enjoy the fruits of their labor.⁹ Increasingly, though, peasants became

tenants working on land appropriated and owned by someone else. When landowners introduced rents “fixed not by some legal or customary standard but by market conditions”,¹⁰ peasant producers were compelled to increase the productivity of their labor in order to compete in an increasingly internationalized market. Those who could no longer afford to pay rent lost ‘their’ land and had to find waged employment elsewhere, away from ‘their’ land; for many, “their enforced transformation into vagabonds and paupers” resulted in violent persecution.¹¹

The result of this transformation was a “triad of landlord, capitalist tenant, and wage labourer”:

The same process created a highly productive agriculture capable of sustaining a large population not engaged in agricultural production, but also an increasing propertyless mass that would constitute both a large wage-labour force and a domestic market for cheap consumer goods.¹²

Thus, from its origins, capitalism has been a way of organizing social relationships that was integrally connected with the relationship between humans and non-human nature. The end of a predominantly agricultural society, with widespread subsistence farming as a central element, also brought an end to culture’s close link to nature; culture, from that moment on, could no longer be found in the tending of crops and animals. However, those who had lost their agricultural ties to nature were at the same time excluded from the new culture of the arts and learning (the theater, literature, polite society). As a consequence, ordinary people were often deemed to be without culture, uncivilized – thus becoming a resource themselves, similar to the natural land they were no longer connected to.

Nature and Women in the Scientific Revolution

As a consequence of changing social relations, hegemonic representations of nature were transformed, too. New images and concepts became necessary to reflect and enable changes in the treatment of nature. An organic world view that regarded nature as a living entity was slowly replaced by a mechanistic philosophy, according to which nature was merely dead matter, passively waiting to be manipulated and mastered by humans:

The removal of animistic, organic assumptions about the cosmos constituted the *death of nature* – the most far-reaching effect of the Scientific Revolution. Because nature was now viewed as a system of dead, inert particles moved by external, rather than inherent forces, the mechanical framework itself could legitimate the manipulation of nature.¹³

These changing conceptions of nature were articulated with ideas about gender. In the organic model, nature was predominantly identified as female, that is, as a “nurturing mother”.¹⁴ This representation acted as a “cultural constraint”¹⁵ against practices like mining, which figured as an assault on nature’s body; at the same time, however, the gendered metaphor of the ‘virgin land’ that informed the perceptions of European settlers in North America evoked the idea of a passive nature that can be conquered by humans. In fact, the image of female nature had been ambivalent: in addition to figuring as a caring mother, or an “untouched” virgin,¹⁶ nature could also appear as “wild and uncontrollable”,¹⁷ and therefore with a need to be mastered. One of the founders of modern science, Francis Bacon, explicitly described the method of the ‘new science’ in sexually charged terms which “treats nature as a female to be tortured through mechanical inventions”, comparing the discovery of nature’s secrets to an act of penetration.¹⁸ The Scientific Revolution, Max Horkheimer and Theodor W. Adorno also agree, established a “patriarchal” relationship between humans and a disenchanting nature they seek to “dominate wholly”.¹⁹

Cheap Nature and Cheap Lives: Witches, Housewives, and Colonized Peoples

When describing the project of modern science as a kind of torture, Bacon may have been influenced by the witch trials that were happening all over Europe during his lifetime in the early modern period. Indeed, several feminist historians have come to treat the European witch-hunts not merely as a barbarous relic of a superstitious past. Instead, the persecution of women is seen as an integral part of the violent process of establishing capitalist social relations that rested on the subjection of women, as well as on the domination of Indigenous populations that were colonized by European nation-states and the enslavement of Africans to work on plantations in the ‘New World’. The transition to capitalism, then, did not just produce landlords, tenants, and workers; it also produced “*differences and divisions within the working class*, whereby hierarchies built upon gender, as well as ‘race’ and age, became

constitutive of class rule and the formation of the modern proletariat”.²⁰ The lower a group was in these hierarchies, the closer to nature it was deemed, and the more in need of being civilized and mastered.

In the ‘New World’, similarly, witch-hunts were used to crush any resistance indigenous populations mounted against colonization, and acted as “a means of dehumanization (...) serving to justify enslavement and genocide”;²¹ in this sense, processes of “housewifization” and “colonization” can indeed be seen as related.²² The subjection of European women and indigenous populations can be understood as a common process of producing ‘cheap lives’. Represented as uncivilized ‘savages’, the colonized were placed on the ‘nature’ side of the nature-culture divide. Through such framing, the exploitation of women and colonial subjects as providers of ‘cheap labor’ was legitimized, while at the same time Indigenous lands were used as reservoirs of valuable resources, or ‘cheap nature’, free for the taking through extractivism and landgrabs.

23

This is not to say that pre-modern modes and relations of production were more equitable, or that apparent alternatives to capitalist states (the state socialisms of the old Eastern bloc, for example) necessarily developed a more benign relation to nature. Materialist feminists have stressed the risk of idealizing pre-capitalist sexual divisions. Instead, they emphasize the need to deconstruct *all* patriarchal and essentialist notions of ‘female nature’.

Reinventing Nature for a Better Future?

Donna Haraway is one of the most influential (materialist and feminist) theorists concerned with the ways in which conceptions of ‘nature’ and the ‘nature of the human’ relate to systems of oppression and exploitation. To her, dualistic categories such as man/woman, white/non-white, technology/nature function as foundational elements on which patriarchy, colonialism, and capitalism are built and through which they enact and justify their systems of domination. The idea of the ‘natural’ superiority of men is constructed from *and* reinforces the subjection of the Other (be that BIPOC, women, non-human animals, or the natural environment), both in discourses and material realities. Therefore, as Haraway proposes in her influential essay collection *Simians, Cyborgs, and Women: The Reinvention of Nature*, we must understand “constructions of nature as a crucial cultural process for people who need and hope to live in

a world less riddled by the dominations of race, colonialism, class, gender, and sexuality”.²⁴ Accordingly, we need to rethink nature to change social relations.

Haraway’s ideas are tied to socio-cultural developments in the United States of the 1970s and ‘80s. With the rise of computer technologies and ever-expanding global markets, humans increasingly appeared as parts of vast networks, as beings both biological and technological. Accordingly, it is not surprising that Haraway chose the image of the cyborg to suggest a productive new conception of the human: a being both organism and machine, both animal and human, both physical and non-physical – a being fusing nature/culture dualisms. The political power of this concept lies in its rejection of naturalized categories and identities that enable domination. The cyborg is supposed to offer women (and other Others) “a way out of the maze of dualisms”,²⁵ an opportunity to (re-)define their own selves and bodies, thereby dissolving the gendered, sexed, racialized foundations of their integration into systems of exploitation. According to Haraway, conceptually reinventing the ‘nature of humans’ can create new forms of cooperation and kinship that, ultimately, foster positive material change in the world. As the futuristic image of the cyborg emphasizes, Haraway’s political aim is to take the current technological condition as a point of departure we cannot go back on, rather than to dream of a more ‘natural’ past.

In her recent work, Haraway further develops her ideas of kinship beyond dualistic boundaries. In the context of climate change and the destruction of ecosystems, she calls for an understanding of (human) nature that emphasizes the ‘becoming-with’ of all beings. This concept not only foregrounds the intrinsic connection between humans and non-human beings (such as bacteria), it also emphasizes how meaning and materialities, natures and cultures emerge together. The ethical implication of these conceptions is the need to cultivate less anthropocentric and less destructive ways of relating to human and non-human worlds alike. “Making kin” is therefore an idea arising from existing material relations as much as it is a call to change these relations.²⁶ For this purpose, Haraway suggests the concept of the Chthulucene to widen the field of actors:

Unlike the dominant dramas of Anthropocene and Capitalocene discourse, human beings are not the only important actors in the Chthulucene, with all other beings

able simply to react. The order is reknitted: human beings are with and of the earth, and the biotic and abiotic powers of this earth are the main story.²⁷

Capitalist Metabolism and the Industrialization of Agriculture

The transition from feudalism to capitalism, from a predominantly agricultural and rural society to an industrial and rapidly urbanizing one is a prime historical example of a deep socio-ecological transformation that continues to shape the present world. Karl Marx, a meticulous observer of the changing relations characterizing this transition, emphasized how large-scale industrial and agricultural production for profit inevitably “disturbs the metabolic interaction between man and the earth, i.e. it prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing”.²⁸ Rather than calling such unsustainable relations into question, science and technology are applied to manage the problems resulting from a fundamental “metabolic rift”:²⁹

all progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil; all progress in increasing the fertility of the soil for a given time is a progress toward ruining the more long-lasting sources of that fertility.³⁰

While the late 18th and the 19th century witnessed a number of technological innovations, most notably the steel plow and the steam-powered thresher machine, agriculture remained somewhat resistant to the kinds of industrialization that other sectors experienced. One of the main obstacles to further industrialization was the limits of soil fertility; the neglect of such limits, among other things, exacerbated famines and colonial plunder in Ireland and elsewhere. From the 1940s onwards, however, such obstacles were overcome by a dramatic process in which capital *subsumed* not only labor, but also nature.³¹ Through the introduction of new technologies, new divisions of labor, deskilling and disciplinary measures, a production apparatus was created that fully subjected agricultural production to the logic of a capitalist economy:

In 1910 farmers gathered their own seeds from last year’s crop, raised the mules and horses that provided traction power, fed them on hay and grains produced on the farm, and fertilized the fields with the manure they produced. In 1986 farmers

purchase their seed from Pioneer Hybrid Seed Co., buy their ‘mules’ from the Ford Motor Company, the ‘oats’ for their ‘mules’ from Exxon, their ‘manure’ from American Cyanamid, feed their hogs on concentrated grain from Central Soya, and sow their next corn crop with the help of a revolving loan from Continental Illinois Bank and Trust Co. ³²

The so-called ‘Green Revolution’ in industrial agriculture in the second half of the 20th century has further increased production, but it also extended and deepened the market dependency of consumers around the planet by way of, amongst other things, bio-engineering and the patenting of seeds. By obtaining patent rights on seeds and installing DNA fingerprints in them, agribusinesses can prevent farmers from benefiting from the natural ability of seeds to reproduce. To further exploit their property rights on plants, agribusinesses pursue “to genetically modify seeds in order to make their reproduction impossible” and manufacture “*seeds which produce completely sterile plants*”. ³³ Farmers are thus forced to return to seed companies again and again.

However, subsumption of nature under capital should not be confused with an alleged “end of nature” ³⁴ or its wholesale “social construction”. ³⁵ Much like Williams and Haraway, human ecologist Andreas Malm reminds us that nature (and labor) hold “an ineradicable *autonomy* from capital” ³⁶ as they are both governed by logics and natural laws which do not originate in capitalism. As we experience today, maybe more acutely than ever, human command over nature is always limited. Deforestation, irrigation and the leveling of land, to name but a few human activities, have thoroughly transformed the Earth. But the consequences for species diversity, climate change and the spread of pathogens, the obstinacy and agency of nature, the “biotic and abiotic powers of this earth” ³⁷ seem beyond human control. The *death of nature* was proclaimed prematurely and comes to haunt science and technology.

The subsumption of nature by means of biotechnology has been most dramatic in the field of plant engineering, but it also takes place in the bodies of animals in meat and dairy industries. Breeding, growth hormones, genetic engineering and antibiotics have substantially increased productivity in livestock production. At the same time, however, deforestation has been intensified to make room for farming and forage production, thereby reducing natural spaces beyond agricultural use. As a result, highly capitalized agriculture may be farming

pathogens as much as chickens or corn.³⁸ By its global expansion alone, commodity agriculture serves as both propulsion for and nexus through which pathogens of diverse origins migrate from the most remote reservoirs to the most international of population centers. The lengthier the associated supply chains and the greater the extent of adjunct deforestation, the more diverse the zoonotic pathogens that enter the food chain and the more zoonotic spillover of viruses from animal populations to humans takes place. The most recent unwanted by-product of the subsumption of nature goes by the name of SARS-CoV-2 and its variants that are circulating through and between moving bodies.

39

Fossil Capital and Climate Justice

Zoonotic pathogens are one of the by-products of the current way of economic production that have had a major impact on human lives in the last years, but they might not even be the most devastating: “Global warming is the unintended by-product par excellence,” begins *Fossil Capital*, Malm’s major study on the roots of global warming.⁴⁰ The fossil economy first emerged in Great Britain – both the birthplace of industrial capitalism and the leading colonial empire at the time. Malm carefully historicizes the material conditions and power relations of the transition from water to steam power, that is, the rise of the fossil economy understood as “an economy characterised by self-sustaining growth predicated on growing consumption of fossil fuels, and therefore generating a sustained growth in emissions of carbon dioxide”.⁴¹ Thus defined, ‘fossil capital’ refers to an expansion in the scale of material production realized through expansion in the extraction and combustion of coal, oil and natural gas. The capitalist compulsion to grow and accumulate value creates a desire for more energy and more ‘natural resources’, and consequently exacerbates the drivers of climate change: “At a certain stage in the historical development of capital, fossil fuels become a necessary material substratum for the production of surplus-value (...); they are utilised *across the spectrum of commodity production* as the material that sets it in motion”.⁴²

The systematic incorporation of fossil fuels as energy into the production process renders the release of carbon dioxide into the atmosphere as no longer a ‘by-product’ but an integral aspect of the economy itself. As Raymond Williams emphasized: “we cannot afford to go on saying that a car is a product but a scrapyard a by-product, any more than we can take

the paint-fumes and petrol-fumes, the jams, the mobility, the motorway, the torn city centre (...) as by-products rather than the real products they are“. Instead, we “have to look at all our products and activities, good and bad, and to see the relationships between them which are our own real relationships”.⁴³ Humans have created the means of transforming the earth and feeding its growing (human) population, but they also brought about destruction and illness. Nature provides the ground for such outputs, but it also generates its own responses. What becomes clear is that ‘nature’ and ‘culture’ form a dialectical relationship: changing material relations bring about, and make necessary, new images and concepts of nature; and categories such as the ‘by-product’ justify and enable (unsustainable) material relations.

Cultural Studies can contribute to “a critique of the society which is compelled by its own social logic to destroy its own natural conditions of existence”.⁴⁴ More specific research into the cultural dimensions of the climate crisis by way of conjunctural analysis can further our understanding of the problems at hand; it can help deconstruct essentialist, fatalist, and (neo-)Malthusian representations of the climate crisis that variously blame the crisis on ‘human nature’, ‘fate’ or ‘overpopulation’. Against such (mis)representations, Cultural Studies can help identify specific collective solutions and highlight ongoing struggles for climate justice from Garzweiler to Standing Rock, Louisiana to Bangladesh, Egypt to Madagascar, Chiapas to Kerala.

This is also why the notion of Most Affected People and Areas (MAPA) is crucial: “The climate crisis wasn’t solely caused by *empowering* an exploitative logic, it was caused by *disempowering* the very communities which could counter this logic. This is what we must redress”. As the “communities on the frontlines of climate breakdown” are more often than not those affected most by colonization and extractive destruction, the current crisis does not constitute “the first time they are contemplating the apocalypse”.⁴⁵ It is in this experience where we might find solutions to the climate crisis that are currently rendered impossible by capitalist and colonial relations: *Our History is the Future*, the Indigenous scholar Nick Estes of the Lower Brule Sioux Tribe has suggested.⁴⁶ Williams had found the origins of culture in “the tending of natural growth”; the establishment of new relations to non-human nature is the precondition of culture’s future.

1. Raymond Williams, *Keywords. A Vocabulary of Culture and Society*, rev. ed., London: 1983, p. 87.
2. *Ibid.*, p. 91.
3. cf. Raymond Williams, "Ideas of Nature" (1972), in: *Culture and Materialism. Selected Essays*, London: 2020, 73-93, here p. 83.
4. cf. Kathryn Yusoff, *A Billion Black Anthropocenes or None*, Minneapolis: 2018.
5. Orsod Malik, "Frontlines: Land and the Climate Crisis with Abeer Butmeh, Dr Hamza Hamouchene and Sam Siva", January 18, 2022, *Stuart Hall Foundation* (accessed 4 April 2022).
6. *Ibid.*
7. cf. Jason W. Moore, *Capitalism in the Web of Life. Ecology and the Accumulation of Capital*, London: 2015.
8. Ellen Meiksins Wood, *The Origin of Capitalism. A Longer View*, London: 2002, p. 95.
9. cf. John Bellamy Foster, "Nature as a Mode of Accumulation. Capitalism and the Financialization of the Earth", *Monthly Review* 73:10 (2022) (accessed 4 April 2022).
10. Wood, *The Origin of Capitalism*, p. 100.
11. Karl Marx, *Capital. A Critique of Political Economy*, vol. 1, transl. Ben Fowkes, London: 1990, p. 896.
12. Wood, *The Origin of Capitalism*, p. 103.
13. Carolyn Merchant, *The Death of Nature. Women, Ecology and the Scientific Revolution*, New York: 1990, p. 193; emphasis added.
14. *Ibid.*, p. 2.
15. *Ibid.*, p. 3.
16. Leo Marx, *The Machine in the Garden. Technology and the Pastoral Ideal in America*, Oxford: 2000, p. 36.
17. Merchant, *The Death of Nature*, p. 2.
18. *Ibid.*, p. 168.
19. Max Horkheimer & Theodor W. Adorno, *Dialectic of Enlightenment. Philosophical Fragments*, transl. Edmund Jephcott, Stanford: 2002, p. 2.
20. Silvia Federici, *Caliban and the Witch. Women, the Body and Primitive Accumulation*, New York: 2004, p. 63-64.
21. *Ibid.*, p. 220.
22. cf. Maria Mies, *Patriarchy and Accumulation on a World Scale. Women in the International Division of Labour*, London: 2014.
23. cf. Raj Patel & Jason W. Moore, *A History of the World in Seven Cheap Things. A Guide to Capitalism, Nature, and the Future of the Planet*, London: 2018.
24. Donna J. Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature*, London: 1991, p. 2.
25. *Ibid.*, p. 181.
26. Donna J. Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, Durham: 2016, p. 99; cf. p. 117-118.
27. *Ibid.*, p. 55.
28. K. Marx, *Capital*, p. 637. Marx grounds his argument on the research of German chemist Justus von Liebig.
29. John Bellamy Foster, *Marx's Ecology. Materialism and Nature*, New York: 2000, p. ix.
30. K. Marx, *Capital*, p. 638.
31. cf. Søren Mau, *Mute Compulsion. A Theory of the Economic Power of Capital*, SDU Diss., 2019, p. 33.
32. Richard C. Lewontin & Jean-Pierre Berlan, "Technology, Research, and the Penetration of Capital. The Case of U.S. Agriculture", *Monthly Review* 38:3 (1986), 21-34, here p. 26.
33. Mau, *Mute Compulsion*, p. 225; cf. Tony Weis, *The Global Food Economy. The Battle for the Future of Farming*, London: 2007.
34. e.g. Bill McKibben, *The End of Nature*, London: 1990.
35. e.g. Noel Castree, *Making Sense of Nature. Representation, Politics and Democracy*, Abingdon: 2014.
36. Andreas Malm, *The Progress of this Storm. Nature and Society in a Warming World*, London: 2018, p. 197.
37. Haraway, *Staying with the Trouble*, p. 55.
38. cf. Rob Wallace, *Big Farms Make Big Flu. Dispatches on Influenza, Agribusiness, and the Nature of Science*, New York: 2016.
39. cf. Rob Wallace, Alex Liebman, Luis Fernando Chaves & Rodrick Wallace, "COVID-19 and Circuits of Capital", *Monthly Review* 72:1 (2020), 1-15.
40. Andreas Malm, *Fossil Capital. The Rise of Steam Power and the Roots of Global Warming*, London: 2016, p. 1.
41. Andreas Malm, "The Origins of Fossil Capital. From Water to Steam in the British Cotton Industry", *Historical Materialism* 21:1 (2013), 15-68, here. p. 17.
42. Malm, *Fossil Capital*, p. 288.
43. Williams, "Ideas of Nature", p. 92.
44. Jacob Blumenfeld, "Climate Barbarism. Adapting to a Wrong World", *Constellations*, January 31, 2022, 1-17, here p. 4.
45. Arwa Aburawa, "The End of the World is Never the End of Everything", January 10, 2022, *Stuart Hall Foundation* (accessed 4 April 2022).
46. Nick Estes, *Our History is the Future. Standing Rock versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance*, London: 2019.

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