

Book Review

Frédéric Neyrat, *The Unconstructable Earth: An Ecology of Separation* (Fordham University Press, New York, 2018, translated from French by Drew S. Burk) 256 pp.

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To keep the Earth habitable, we need a new ecology (*oikos-logia*). Against the background of the Anthropocene – the current geological epoch in which some humans and their extractive economies disrupted the relative geophysical stability of the Holocene epoch of the past 11,700 years – French philosopher Frédéric Neyrat, Professor of Planetary Humanities in the English department of UW-Madison (USA), critically explores social constructivist theories that have suggested a new ecology aligned to our contemporary geological era.

The Unconstructable Earth: An Ecology of Separation unpacks the discourses and imaginaries of the two main ‘grand narrative[s]’ of social constructivism – namely ‘geo-constructivism’ and ‘eco-constructivism’ – which usher the ‘new myth of our current age’: the ability to reconstruct and pilot the Earth away from socio-ecological disasters (2). How did these ecologies emerge? Who are their principal spokespersons? And which futures do they envision? Engaging with philosophical, economic and scientific strands of constructivist thinking, the book deciphers the form of ecological thought compatible with these projects. Against these proposals, Neyrat suggests a resolutely anticonstructivist approach, which he coins an ‘ecology of separation’. This ecology views nature as ‘other’: neither an a-natural Earth amenable to human mastery (as geo-constructivists like von Neumann, Crutzen or Rees would have it), nor a hybrid Earth in which humans and nonhumans have merged (as eco-constructivists like Holling, Nordhaus, Shellenberger, Ellis or – more controversially – Latour would have it). According to Neyrat and his anticonstructivist ecology of separation, only a distancing from nature – which recognises its ‘unconstructable part’ and its inaccessibility to humans – can enable a true political ecology. Whilst not grounded in legal theory – but in political ecology and ecological philosophy more broadly – the book is an inspiring and theoretically rich contribution for any (legal) scholar interested in rethinking and reimagining the relation between humans and the more-than-human world we dwell in. By offering a detailed and critical analysis of how geo- and eco-constructivists’ conceptions of ‘nature’ are intimately correlated with technological possibilities, the book will also speak to researchers interested in new technologies and the challenges they pose to global environmental law and governance.

The book is divided in three parts. The first part – titled ‘The Mirror of the Anthropocene: Geoengineering, Terraforming, and Earth Stewardship’ – looks at the most emblematic ‘new grand narrative’ that attempts at reconstructing the Earth, namely the geo-constructivist project. Neyrat convincingly establishes that advocates of geo-constructivism privilege ‘anaturalist’ technologies that consider nature as ‘nonexistent’ and the ‘environment’ as what humans make of it. For the promoters of geo-constructivism, the only world that exists – and must exist – is technology (4). By building on an Enlightenment

heritage of ‘modernity’ that sees ‘nature’ as inanimate and mathematizable material mastered by humans, the geo-constructivist ‘hypermodernity’ erases the idea of nature itself (5). It is this erasure that entails the replacement of nature by technology. Yet, the objective of geo-constructivist technologies goes beyond mere substitution and aims at an entire *reconstruction* of nature, as Neyrat instantiates by unravelling the logic and objectives of geoengineering and its ‘ferocious fantasy’ of ‘recreating the Earth, reconstructing life on Earth’ (45). Neyrat traces the origins of this rationale to the Space Age and the advent of terraforming ambitions, as if ‘the Anthropocene had somehow inherited this imaginary’ (45). The concept of ‘terraforming’, which originally comes from science fiction, refers to the deliberate modification of a planet to make it inhabitable for human beings.¹ In the Anthropocene, however, the terraforming dreams of geoengineers are not directed to an exoplanet – as were the dreams of extra-terrestrial colonizers during the Space Age. In the Age of Humankind, the gaze of terraformers has turned towards the Earth itself, which must be reconstructed to perpetuate the needs and lifestyles of the human species. This ideal is further coupled to one of humanity’s oldest dreams of recreating life: ‘to artificially master the processes for the generation of life’ (51). Here, Neyrat draws on a variety of contemporary examples, ranging from bio-constructivist research on synthetic biology – which he views as a ‘substitution of conservation by synthesis’, as exemplified with the projects on ‘de-extinction’ (53) – to geo-constructivist research on solar engineering. In both instances, Neyrat argues, the structural causes of socio-ecological disasters – whether extinction or climate change – are left intact. The focus on effects rather than causes in constructivist thinking is one of the main critiques that Neyrat articulates and lies at the heart of the second part of his book.

This second part – titled ‘The Future of Eco-constructivism: From Resilience to Accelerationism’ – claims that contemporary ecological thought is dominated by what Neyrat calls an ‘eco-constructivist’ current, which affirms that ‘everything is connected, everything is attached, that there is no place on Earth that isn’t disconnected from the rest of it, humans are in permanent contact with nonhumans, who, just like us humans, are also actants’ (119). Neyrat focuses on three strands of eco-constructivism, namely resilience theory (Holling), ecomodernism (Nordhaus, Shellenberger and Ellis) and post-environmental political ecology (Latour). While resilience theory is based on the premises of uncertainty, unpredictability and instability – thereby distancing itself from the modernist rationale that sees the Earth as dead matter prone to human mastery – it is still designed, Neyrat argues, to solve problems by adapting to the effects of socio-ecological stress, instead of focusing on the structural causes that create them. In Neyrat’s words: ‘[t]he ecology of resilience has so completely accepted the axiom of turbulence that it finds itself in the situation of being ontologically incapable of giving an account of the turbulence that nourishes it’ (78). Neyrat further problematizes this eco-constructivist rationale by tracing it to the project of ecological modernization that was born in Germany in the 1980s and is best captured today in the ‘Ecomodernist Manifesto’ of the Breakthrough Institute,² according to which ‘the environment will be what we make of it’ (86). This ideal posits the Earth as an ‘extraplanetary environment’ moulded to human needs

¹ Jack Williamson first coined the term in a short story called ‘Collision Orbit’, published in 1942. W. Stewart [J. Williamson], ‘Collision Orbit’, *Astounding Science Fiction*, July 1942.

² The Ecomodernist Manifesto is available at <www.ecomodernism.org>.

through techno-industrial interventions, and views humanity as being off-planet or cut off from the Earth (86-87). Shared affinities with the geo-constructivist agenda come to light here. From this perspective: ‘saving the planet can only mean one thing, and this is one of the leitmotifs of post-environmentalism: *Intervene even more* – in other words: “creating and re-creating [the Earth] again and again for as long as humans inhabit it” (85, emphases in the original). Paradoxically, the fact that it is precisely this rationale and the techno-interventionist dream of modernity that has led to the advent of the Anthropocene in the first place, remains unquestioned. Neyrat sheds light on an important yet often overlooked internal contradiction that lingers in the narrative and imaginary put forward by those promoters, namely the fact that:

On the one hand, they want to profit from the Anthropocene-event so as to launch their grand program of modernization, so they have to insist on the *rupture* created by the Anthropocene in order to then get rid of environmentalism; and on the other hand, they have to deny or minimize the extent of this rupture by insisting on the *continuity* of eras, under penalty of having to recognize the necessity for profoundly changing our mode of civilization and its values that have led it to where we find ourselves today (88, emphases in the original).

Neyrat hereby elaborates an innovative critique of the ‘self-validating discourse’ of the Anthropocene, where ecomodernists lament that everything has been transformed by humankind as a ‘species-being’, yet aspire for this humankind to ‘complete the job’ and ‘humanize what would remain of the “natural world” – in other words, to *anthropoform* and manage the whole thing’ (56, emphasis in the original).

The argument becomes troubling, however, when Neyrat extends his critique against this eco-constructivist rationale to Bruno Latour’s political ecology. Neyrat draws on Latour’s post-environmental politics to argue that, this time, the ‘expiration of the concept of the environment’ is not located in its replacement by technology, but by its ‘endless hybridization’ – or what Latour calls ‘attachments’ between humans and nonhumans actants (92). Viewed through this prism, ‘nature’ is ‘integrated and internalized in the very fabric of our polity’ (91-92). Yet, for Neyrat, ‘[s]howing that everything is connected is the best way for affirming the idea that the entirety of nature has been anthropized’ (93). An autonomous ‘nature’ is, once more, erased. Neyrat goes as far as claiming that, following Latour, ‘we must become even more the “master and possessor of nature” to use the famous phrase from Descartes, if we understand that this “mastery” must be considered as an “attachment” that is becoming more and more close-knit between “things and people”’ (92-93). This polemical argument, however, builds on a misconstruction of Latour. Whereas Descartes saw natural resources as dead matter deprived of any inner and autonomous force, Latour’s intervention focuses on the recognition and redistribution of agency to nonhuman actants, which precisely defeats the Cartesian heritage of human mastery over an inert, passive and controllable nature. In a somehow contradictory fashion, Neyrat himself later reckons that, quoting Latour, ‘[h]uman creators and constructors must accept that “they share their agency with a crowd of actants over which they have no control nor mastery”’ (101). In his conflation of Latour’s ecology with Cartesian dreams of total mastery, Neyrat mistakes attachment and

ontological equivalence with annihilation and erasure. In a dramatic reversal of Latour's statement that 'we have never been modern', Neyrat further asserts that Latour offers instead a 'hypermodern version of modernity' (93): '[I]ike Nordhaus, Schellenberger, Ellis, and Lynas [previously referred to in the book as champions of the ecomodernist approach], Latour firmly believes that our salvation goes by way of technological development'. In this sense, Neyrat concludes, '*Latour is resolutely modern*' (94, emphases in the original). The central argument boils down to a critique that Latour is, in essence, not a technophobe – a disposition that would indeed be antithetical to the relational, anti-determinist nature of Latour's account.

Against Latour and his '*continual practice of care-taking*' of technologies and their effects (97, emphases in the original), Neyrat urges instead to refrain from developing new technologies and their 'unwanted consequences at all costs' (98). For him, '[o]nly a return to causes, to the ends, to the principles, and to what we desire can allow us to make a distinction between technologies we want and those we don't want' (100). Ultimately, the disagreement seems to revolve around a question of technological determination, or whether and how 'structural' causes – which Neyrat presumes stable – inscribe and perform fixed goals in particular technologies. If we follow Latour and his redistribution of agency to nonhuman (technological) actants, the attribution of responsibility for harmful effects to particular, not always intentional and more-than-human actants becomes indeed more complex. Neyrat's critique, thus, begs the question of how 'responsibility' can be (re)envisaged as politically productive in the more-than-human world we inhabit – a question of great concern also for international law. This concern is intricately related to the 'flat ontology' that unfolds from Latour's actor-network theory (ANT), according to which there is no hierarchy but generalized symmetry between human and nonhuman actants in the assemblages they compose. Indeed, Neyrat laments that, for Latour, 'technological production is placed on the same level as human generation' (102).³ This account echoes the long-standing Marxist critique of social constructivism and de-politicization articulated against new materialist and relational thinkers in light of their symmetrical ontology and agnostic politics.⁴ Neyrat goes as far as stating that '[f]or Latour, politics never signifies *conflict* ... but always a *process* and production – the way whereby the multiple converges toward the One' (103, emphases in the original) – the One being the assemblage or network in which humans and nonhumans are entangled.

The reader could be tempted to rebut this statement by drawing on Latour's latest work on 'geosocial class struggles' where he calls for a re-invention of the political 'subject'.

³ Elsewhere, Neyrat expressed his critique in the following way: '[u]n vitalisme ontologique qui étend à l'être le concept de vie: attribuant la vie à tout, ce vitalisme conduit à une indifférenciation des régimes d'existence, et à un néo-animisme qui s'est accompagné du côté d'ANT de l'effet pervers suivant: plus les objets ont été promus au statut d'actant plein d'*agency*, plus les sujets ont été réifiés, se réduisant à des spectateurs condamnés à adorer le dieu de l'incertitude, la déesse de la complexité et le fétiche des effets non voulus'. F. Neyrat, 'L'esprit du communisme et la condition planétaire' (La vie manifeste, 12 avril 2017 [11:50-12:27]), available at <<https://soundcloud.com/laviemanifeste/frederic-neyrat>>.

⁴ The focus of ANT on nonhuman agency has been critiqued as deflecting attention away from structural class inequalities and individual blame. For a critical review of ANT from i.a. a Marxist perspective, see R. H. Lossin, 'Neoliberalism for Polite Company: Bruno Latour's Pseudo-Materialist Coup' (Salvage, 1 June 2020), available at <<https://salvage.zone/articles/neoliberalism-for-polite-company-bruno-latours-pseudo-materialist-coup>>.

‘Today, the most advanced re-understanding of what the subject is in the new climatic regime’, Latour claims, ‘is to be found in *The Overstory* by Richard Powers’.⁵ The social protests, acts of civil disobedience and sit-ins that are narrated in this masterpiece on the significance of trees – and how the human characters interact with them – clearly evidence how politics *are* conflict. The relations between trees and humans that are narrated in this novel – which Latour takes as the most advanced re-understanding of the political subject today – resist any form of anthropomorphism in the political representation of the nonhuman. Latour’s endorsement of Powers’ sensational literary example of collective forms of resistance offers instead a clear depiction of what Neyrat himself praises as forms of political mobilizations that ‘affirm a holism of struggle’ and ‘open up new paths for the living’ based on a ‘new planetary consciousness’ (117).

Yet, there is merit in Neyrat’s concern that the political alliances Latour envisages privilege forms of mutual composition and processual unfolding. Indeed, for Latour, the challenge of ‘geosocial class struggles’ is to reinvigorate the socialist tradition by re-theorizing the concept of social class so as to include a wider array of material conditions of existence than Marx’s definition of class alludes to.⁶ Geosocial classes, in other words, are not merely defined by their economic position in the process of production, but by their dependence on and access to a wider extended list of material conditions that enables them to thrive and survive.⁷ Humans, in sum, must take account of the nonhumans to which they are attached in an existential fashion. The geosocial landscape that would unfold from such descriptions would enable social scientists to identify the material conditions of existence that some geosocial classes live and prosper from, at the expense of other exploited classes. For Latour, it is the struggle over such means and material conditions of existence – over habitable soil, breathable air, transport, energy, water, food, salaries, workers’ rights – that define geosocial class struggles of the twenty-first century.⁸ Whilst the notion of exploitation is indeed materially expanded and clarified, it is hard to imagine how the material conditions of existence of such geosocial classes would not be dependent upon and intertwined with traditional class, race and gender conditions and their associated schemes of structural exploitation. There is, moreover, a fundamental missing element in Latour’s account, namely the ‘part’ of nature – as Neyrat puts it – or that of natural/material resources and conditions that escapes any relational bound and descriptive account.⁹ Against the belief that every entity, assemblage or network can be described and represented through its relations – the

⁵ B. Latour, *Anthropocene Lecture* (HKW Berlin, 4 May 2018 [35:00-36:00]), available at <www.bruno-latour.fr/node/770.html>, in reference to R. Powers, *The Overstory*, New York: W. W. Norton & Company, 2018.

⁶ ‘Cosmology and Class: An Interview with Bruno Latour by Nikolaj Schultz’ (Critical Inquiry, 13 January 2020), available at <<https://critinq.wordpress.com/2020/01/13/cosmology-and-class-an-interview-with-bruno-latour-by-nikolaj-schultz/>>.

⁷ N. Schultz, ‘New Climate, New Class Struggles’, in B. Latour and P. Weibel (eds), *Critical Zones: The Science and Politics of Landing on Earth*, Cambridge, MA: MIT Press, 2020, at 310.

⁸ Ibid.

⁹ Elsewhere, Neyrat uses the concept of the ‘alien’ to refer to this ‘relation between the human and the inhuman, the terrestrial and the extra-terrestrial, the near and the distant, what is familiar to us and what persists in remaining – despite everything – *alien*’. This part or dimension remains ‘dark, withdrawn, rebellious against the assemblages that seek to contain it’. See the Alienocene journal Neyrat created, available at <<https://alienocene.com/what-is-alienocene/>>.

‘contemporary passion for indivisible links’, as he laments (133) – Neyrat devotes the third part of his book to the dimension of the Earth – the part of nature – that evades human access.

This final part – titled ‘An Ecology of Separation: Natured, Naturing, Denaturing’ – spells out Neyrat’s own political ecology against the geo- and eco-constructivist ones and their ‘devastating constructivist effects’ (133). How can humans inhabit an Earth that withdraws from any project of integral constructability? To answer this question, Neyrat delves into a rich philosophical inquiry into human access to the material world, by drawing mainly on Spinoza, Kant, Schelling and Whitehead, but also Heidegger, Husserl, Arendt, Lovelock and Margulis, Deleuze and Guattari. Neyrat’s response – an *ecology of separation* – negates both the modernist ‘split’ between Humanity (as subject) and the Earth (as object) in two hermetically sealed parts, as well as the ‘pathological connectionism’ that inextricably welds both parts together (133). Instead, he supplements the ‘principle of ecology’ – according to which everything is connected – with a ‘counterprinciple of separation’ that promotes a *distancing* within the world. Fundamentally, the separation called for by Neyrat must not be confused with the Cartesian ‘splits’ between human and nature, mind and body. His separation consists, instead, in ‘the recognition of the other’, since ‘[t]o recognize, for a human subject, even if he or she is simply existentially separated, refers back to recognizing a dependence (and not a “pressure”) vis-à-vis the others with which he or she shares the same world’ (150). Only an ecology of separation can simultaneously recognize our being-in-relations *and* the demand for an outside – a ‘*real nature*’ that exists as separate from human thought to claim individuation for itself alone (154).

Indeed, Neyrat’s ‘real nature’ possesses a ‘grey area’ – an ‘unconstructable part’ – that withdraws from human access. As such, it is neither a natured nature or *natura naturata* – that is, an object to be shaped or that is manipulable, as the geo-constructivists would like it to be – nor a naturing nature or *natura naturans* – a producing subject as the eco-constructivist would like it to be – but a denaturing nature or *natura denaturans*: a ‘movement of withdrawal, an antiproduction preceding all production’ (155 and 168). At the heart of this position lies the recognition of nature’s ‘opacity’ (154), where ‘nature discovers itself to be closed off from the inside of perception’ (153), ‘revealing itself ... without giving itself to us’ (155). Neyrat call this ‘real nature’ a ‘*traject*’: a ‘long-term event that began 4.54 billion years ago, the historical trajectory of an entity that will disappear in several billion years’ (171). This ‘other’ within nature is never fully given to human’s mind and experience but constitutes an ‘excess’ or an ‘existential surplus’ that enables myriad potentialities (165). In Neyrat’s words: ‘[i]t is precisely this surplus that makes the Earth into a wholly full body: not a body filled with matter or organs, but with potentialities that no system – whether technical or living, artificial or organic – is able to contain’ (167-168). In sum, while ‘nature’ is made of (human and nonhuman) relations, it can never be reduced to these relations.

Neyrat’s rich account leaves the reader with a deep sense of productive disorientation and humility towards this ‘unconstructable part’ of the Earth. Ultimately, Neyrat’s *ecology of separation* can be seen as a way to unleash our sensitivity to ‘worlds-without us’, which should not lead us to mask ‘the way in which we produce the us-without-worlds’¹⁰ – a

¹⁰ This is the critique he voices against authors like A. Weisman, *The World Without Us*, New York: St. Martin's Thomas Dunne Books, 2007; E. Thacker, *After Life*, Chicago: University of Chicago Press, 2010; J.

‘humanity dreaming of the possibility of extracting itself from an already ravaged ecosphere’ (171-172 and 180). Instead, this sensitivity requires a political ecology that is capable of grasping the (extra-)geological problem by its roots in placing the universe at the core of the ecology to deal with the obscure foundation of nature: its unconstructable base that makes up the trajectory of an Earth destined to cosmic destruction. Without reducing the Earth as something for humanity, the Earth as a *traject* which traverses the living and the nonliving, accompanies humanity throughout the time it will be granted. While Neyrat’s ecology of separation is radical on an ontological plane, the socio-political model suggested in his conclusion to ‘unmake’ contemporary forms of ‘geological capitalism’ based on expertise, technocracy, top-down management, geoengineering, Earth stewardship and resilience theory (181) – namely a model of de-growth based on the imperative of antiproduction and circular economy, such as the transition town movement (182-184) – might leave the reader slightly dissatisfied, as one wonders whether such policies are fit for the new onto-epistemological configuration of existence that is called for. Yet, after what can be read as abstract thoughts verging towards nihilism, the concrete implications that Neyrat proposes can come as reassuring. In essence, we are invited not to remake but to unmake the mode of production that led to and defines the Anthropocene. To unmake, Neyrat insists, always requires two operations. One is *intellectual* and invites us to rid ourselves of any of our past illusions (such as those related to progress or ‘cheap nature’); the other is *practical* and demands to dismantle and prevent from constructing that which harms us (185).

The reflections triggered by the book are profound and richly informed. It offers an illuminating critical engagement with contemporary ecological thought and projects that re-imagine humans’ relations to more-than-human worlds. Applied to legal theory, the reader is left thinking whether proposals to align the (international) legal architecture to ‘planetary boundaries’ are not contemporary examples of an *anthropoformatting* where modern ‘nature’ is transformed into a hypermodern ‘safe operating space for humanity’.¹¹ Even the ‘rights of nature’ movement, often viewed as the most radical attempt to bolster legal protection of natural entities for their intrinsic value, could be read as an expansion of a human protective scheme that enlists ‘natural’ entities as passive bystanders in need of mere ‘human’ protection, without leaving any space for – or separation from – their own alterity and agency. Neyrat’s book is an enriching contribution for any legal scholar interested in re-conceptualizing ways of connecting humans and nonhumans beyond – or rather between – split and fusion: to think a legal order(ing) for humans transiting on Earth that enables an internal separation between the two – an outside without which the notion of an inside has no meaning.

Zalasiewicz, *The Earth After Us: What Legacy Will Humans Leave in the Rocks?* New York: Oxford University Press, 2008; or Q. Meillassoux, *After Finitude: An Essay of the Necessity of Contingency*, trans. Ray Brassier, London: Continuum, 2008.

¹¹ Cf. Fernández and Malwé, ‘The Emergence of the “Planetary Boundaries” Concept in International Environmental Law: A Proposal for a Framework Convention’, 28 *Review of European, Comparative and International Environmental Law* (2019) 48. On ‘planetary boundaries’, see Rockström et al., ‘A Safe Operating Space for Humanity’, 461:7263 *Nature* (2009) 472.