



Geopower: On the states of nature of late capitalism

European Journal of Social Theory

2019, Vol. 22(3) 342–363

© The Author(s) 2018

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/1368431018803764

journals.sagepub.com/home/est**Federico Luisetti***University of St Gallen, Gallen, Switzerland*

Abstract

The article argues that environmental planetary discourses have coalesced into the Anthropocene crisis narrative and reformulated the state of nature apparatus of Western political theory. The Anthropocene, as an ecological state of nature of late capitalism, casts light on the logics of geopower, which assembles species thinking, a fascination with nonlife and sovereignty, and the imaginary of extinction and mutation. Geopower shifts governmental technologies from human populations and their ‘milieu’ to nonhuman species, energy flows and ecosystems, from political economy and bio-power to Earth science and systems ecology. This configuration of power suggests a shift in the neoliberal agenda and imposes the Earth as a political personage, generating threatening political myths and figures of chaos and sovereignty, such as Gaia, Chthulu and Climate Leviathans.

Keywords

Anthropocene, climate change, earth politics, environmentalism, geopower, state of nature

Earth politics

In a recent intervention, the historian Dipesh Chakrabarty reaffirms the scientific and political responsibility to build ‘awareness of Anthropocene’, a geological time-period marked by irreversible human disruptions of the biogeochemical parameters of the Earth system, of which anthropogenic climate change is the principal cause and symptom:

Corresponding author:

Federico Luisetti, University of St Gallen, Müller-Friedberg-Strasse 6/8, St Gallen, 9000, Switzerland.

Email: federico.luisetti@unisg.ch

Climate change is not a standard business-cycle crisis. Nor it is a standard 'environmental crisis' amenable to the usual risk-management strategies. The danger of a climate tipping point is unpredictable but real. Left unmitigated, climate change affects all of us, rich and poor. They are not affected in the same way, but they are all affected. A runaway global warming leading to a Great Extinction event will not serve the rich very well. A massive collapse of human population caused by climate dislocation – were it to happen – would no doubt hurt the poor much more than the rich. (Chakrabarty, 2017: 30)

I suggest reading Chakrabarty's statements as a portable manifesto of the current grand narrative of the Anthropocene that, with minor variations, is proliferating beyond the domain of Earth sciences and shaping both intergovernmental policies and the critical humanities and social sciences.¹ The basic elements of the Anthropocenic narrative are recurrent and easily identifiable: the intensification and naturalization of the notions of crisis and risk; the threat of abrupt planetary environmental catastrophes; climate change as the key global calamity; the conflation of population disturbances and environmental perturbations; the replacement of socio-political criteria with ecosystems and species; the evocation of a chronic state of ecological vulnerability that must be confronted by strategies of security, survival and adaptation; a political and poetical imaginary of extinction and mutation.²

From Hollywood disaster films to the Intergovernmental Panel on Climate Change's reports, from grassroots social movements to eco-art and popular science, the imaginary of unpredictable environmental collapses, the correlated political affects of fear and survivalism, and the vocabulary of planetary crises, mass population extinctions, resilience and adaptation, have produced a recognizable Anthropocenic *Weltanschauung*, an 'emergent science of impending global (terrestrial and oceanic) disaster'.³ There is no doubt that late capitalism has stubbornly pursued large-scale eco-social devastations through mining and deforestation, soil and ozone depletion, global pollution and ocean acidification, species invasion and extinction and biogenetic hazards, urbanization and pauperization, famine and mass human migrations, which have significant planetary implications. And yet, I believe that the extraordinary success obtained by the Anthropocene paradigm, beyond Earth system science and stratigraphy, depends more on its ability to express and disseminate an Earth-at-risk political ontology and aesthetics, than on its sociological, geological or ecological perspicacity.⁴

While the 'limits to growth' environmentalism of the 1960s and 1970s placed ecology at the center of the political agenda (Meadows et al., 1972), and the 'sustainable development' movement launched in 1987 by the United Nations' World Commission on Environment and Development replaced old-fashioned notions of nature with 'the environment' (World Commission on Environment and Development, 1987), the current appeal of the Anthropocene reveals the convergence of economic and ecologic neoliberalism, marking the hegemony of a 'discourse of crisis response through resilience' (Walker and Cooper, 2011: 3) and the method of disaster risk reduction.⁵

As constructed and endorsed by the International Geosphere-Biosphere Programme (IGBP), the Future Earth global alliance, and the Working Group on the Anthropocene of the International Union of Geological Sciences, the term Anthropocene designates a new epoch of the Quaternary, the unit in a geological timescale in which humans have

transformed the geological and meteorological conditions of the Earth and have become a major natural agent at a planetary level (Crutzen, 2002).⁶ Starting with the publication in 2009 of the influential essay by Chakrabarty 'The climate of history: four theses', a widespread debate in the humanities and social sciences has charged the Anthropocene with additional connotations.⁷ The planetary biogeophysical consequences of the ecological 'overshoot' of humanity named by the Anthropocene demand a reconsideration of the methods of political economy, the analyses of capitalism and globalization, and the Marxist critique of accumulation. Chakrabarty thus calls for a 'species thinking',⁸ a deep history of the distribution of life on the planet, in which modern capitalism plays an important part but does not monopolize the theoretical landscape.

In tune with Chakrabarty's *longue durée* approach, most Anthropocenic literature – both scientific and journalistic – moves freely between prehistory and post-histoire, mythological archaisms and extinctionism (Weisman, 2007; Negarestani, 2008; Zalasiewicz, 2009; Kolbert, 2014). The scale, both chronological and biogeochemical, of environmental transformation demands a willingness to face inhuman dimensions, putting thought in 'sustained contact with times and spaces that radically exceed any conceivable human presence' (Clark, 2014: 27–8).⁹ The Anthropocene is seen as a strategic tool for rethinking philosophical categories, the distribution of natural and social history, the convergence of geopolitics and geophysics, historical time and cosmic time, the resonance between the 'rhythms of nature and sociocultural rhythms' (Viveiros de Castro and Danowski, 2014: 9).¹⁰

Given Earth system science's pivotal role in promoting and shaping the understanding of the Anthropocene as a unified species narrative that legitimizes global supranational ecological policies,¹¹ competing critical terms for conceptualizing the ecological condition mapped by the Anthropocene have emerged, such as Donna J. Haraway's Chthulucene (2016).¹² The Chthulucene ironically refers to the literary monster introduced by horror writer H. P. Lovecraft, a leviathanic octopus-dragon that Haraway combines with the Californian spider *Pimoida chthulu*, sketching out a tentacular landscape of ecological interconnectedness and trans-species communities. The Chthulucene shares the essential features of the Anthropocene, the sense of 'living in times of extinction, extermination, and partial recuperation' (Haraway, 2016: 38), but maintains that the 'biotic and abiotic powers of the earth' should not be hijacked by a 'dominant drama' (2016: 55). Climate change and the alterations of the geosphere, biosphere and atmosphere are the fundamental geohistorical predicament; however, they depend more on creative ecopolitical dynamics and less on the unified agency of a universal Anthropos driving world-transformations from England and the Industrial Revolution, where leading Anthropocenists locate the beginning of the 'Age of Man'.¹³ As in the tale of the Anthropocene, unruly biogeochemical agents and non-human species, always on the verge of metamorphosis or disappearance, are the protagonists of the Chthulucene; a state of naturalistic chaos that Haraway's 'multispecies storytelling' celebrates through a poetics of joyful precariousness and terror (2016: 55–6).

Planetary sovereigns

My hypothesis is that the transdisciplinary fervor spawned by the geohistorical construction of the Anthropocene depends on a less visible role performed by this overdetermined epoch. The Anthropocene provides discernible political and emotional connotations to the emerging states of nature of late capitalism; preserves and reconfigures the foundational Western conjectural history of an unruly state of nature (Palmeri, 2016), now grasped as a condition of environmental hazards, ecological turbulence, risk and exception;¹⁴ and carries within itself the political myth of planetary environmental sovereigns (Mann and Wainwright, 2017).¹⁵

Since Thomas Hobbes reinvented the state of nature of the natural law tradition, the legal apparatus defining state sovereignty and international law has been just one end of a relation that requires a state of nature as the other end (Strauss, 1965). Leviathan is for Hobbes the Sovereign King, ‘the Artificial Man called Common-wealth or State’ (Hobbes, 1985), a terrifying monster of Biblical descent that protects the ‘civil estate’ from the destructive natural impulses of competition, diffidence, glory and jealousy. The State as Leviathan emerges from a hypothetical social contract that limits the conjectural war of one against another, transferring his *jus naturale* to a sovereign that guarantees peace to the ‘civil society’ (Chapter XIV). Beginning with its baroque genealogy, the constitutive features of State sovereignty – its mixture of reason and desire, its immunitarian function and monopoly of violence – are mirror images of the anomie and dispersion attributed to the uncivilized state of nature (Rubiés, 2011; Landucci 2014). The paradoxes of a social contract designed against the background of a state of nature (*status naturalis*) perceived as a ferocious state of war (*status belli*) are now transformed and reinstated by climate wars and environmental Earth politics.¹⁶

Bruno Latour is the most prominent intellectual who has programmatically embraced the leviathanic implications of the Anthropocene as a novel state of nature (Latour, 2013). In order to do so, Latour has returned to a key symbolic figure of environmental politics, the cybernetic vision of the Earth as Gaia, the Greek Earth goddess. Formulated in the 1970s by James Lovelock and Lynn Margulis, Gaia stands for our ‘living planet’, a self-regulating cybernetic system with homeostatic tendencies, in which life carves and maintains through feedback processes the supporting conditions of its own habitat (Lovelock, 2000). Building on the work of Isabelle Stengers (2015: 43–50), and on Michel Serres’s ambition to rewrite the social contract as a ‘natural contract’ (Serres, 1995), Latour has conflated the Earth system vision of Gaia with the leviathanic imagery of European political philosophy. Gaia discloses ‘a new state of nature’ (Latour, 2013: 102), that is nothing else than a generalized state of war: ‘a war of all against all, in which the protagonists may now be not only wolf and sheep, but also tuna fish as well as CO₂, sea levels, plant nodules or algae, in addition to the many different factions of fighting humans’ (2013: 102).

This global Anthropocenic state of nature is conceived by Latour as a primitive state of war, which requires a ‘civilizational’ gesture that restores the political equilibrium, a new Leviathan: ‘we realize that we cannot obtain a civilized collective without composing it . . . thus searching for a new Leviathan that would come to grasp with Gaia’ (2013: 102). Like Behemoth, the Biblical monster that frames Hobbes’s history of the English

Civil War, also Gaia, the goddess of a terrifying ecological state of nature, must be tamed by a planetary sovereign.

In *Climate Leviathan: A Political Theory of Our Planetary Future* (2017), Geoff Mann and Joel Wainwright pursue a similar argument, based on the state of nature apparatus of classical political philosophy. The ‘adaptation of the political’ to the incipient climate regimes may lead to the formation of a capitalist or Maoist ‘climate Leviathan’, which will reaffirm political sovereignty over the global environment, battling in ‘terrifying ecologies and politics’ against the chaos of climate disruptions (2017: 49). As in Latour’s ‘political theology of nature’, Climate Leviathans are indifferent to the old dualism of nature and culture, non-human agents and social subjects: climate wars and environmental catastrophes occur through hybrid relations, in which bacteria and tornados, pollutants and migrants, plants and aerosol particles, algae and satellite networks are mutually affected and coproduced.¹⁷

Latour casts himself as the new Hobbes, the demiurge of a new Leviathan, competing with Carl Schmitt for the title of high priest of Western political theology: ‘just as Hobbes needed the state of nature to get to the social contract, we might need to accept a new state of war to envision the State of peace’ (2013: 112). Latour’s Hobbesian palette – a state of war of every man against every man as a primitive condition to be overcome by the civilizational pact, violence as an immemorial state of nature that threatens the stability of the commonwealth – and unapologetic Eurocentrism – cast a long shadow on his, and similar attempts to revive the state of nature through ecopolitical preoccupations and Earth system concepts (Luisetti, 2017). In concomitance with his reenactment of Hobbes’s brutes as Gaia’s savagery, Latour thus insistently appeals, against the decolonial critiques of ethnographic reason, to the old methods of ‘comparative anthropology’, repurposing the old colonial jargon of fetishes and animism (Latour, 2010).¹⁸

Even in the ecological paradigms informed by technoscience and cybernetics, the state of nature/state of society divide continues to dictate the theoretical and political framework, mirroring the enduring geohistorical fracture between the Western Hemisphere and the rest, which emerged in their current configuration in the sixteenth century, along the Atlantic slave trade. The state of nature is a concrete universal, which holds together the civilizational laws of the commonwealth and the violence of colonial domination.

A state of nature political unconscious is at work also in Haraway’s Chthulucene and in the expanding multispecies paradigm (Kirksey, 2014), which is becoming a common feature of the culturalist and anthropological reception of the Anthropocene. Earth system science’s tipping points and crisis events are overlapped with state of war archetypes of savage destructions and strategies of survival and adaptation, making the Anthropocene an evolutionary theatre of extinct wilderness and present mutants (Lowenhaupt Tsing et al., 2017). The scientists and poets of the Anthropocene survey the traces of a feral nature that, as the haunted ghosts of exterminated indigenous populations, reveal the conflicts and brutality of the state of nature.

Multispecies, ecofeminist and posthuman ethnographers of the subaltern species of the Anthropocene embrace the Darwinian landscape of ruins of non-human ‘monsters’, salvaging the creative fragility and emancipatory potential of ecological primitives and beings of metamorphosis.¹⁹ Latour’s Hobbesian interpretation of the Anthropocene has

thus converged with Eduardo Viveiros de Castro's neo-primitivism (Viveiros de Castro, 2014) and Haraway's 'tentacular wordling' of the Chthulucene, supporting the attempt to construct an ecological state of nature under the auspices of the environmental savagery of Gaia.²⁰ In the uncanny ecosystems of the Anthropocene, the Western state of nature apparatus – already mobilized against European nation-states by the New World Rousseauian ideologists of America's constituent freedom and naturality – continues to prolong its efficacy and nurtures the bestiary of savage freedom and threatening political sovereignty.²¹

This 'general ecology' (Hörl, 2017) demands a consideration of the Anthropocene that explores its function as *a state of nature of late capitalism*.²² The post-Cold War grand geopolitical vision of an imperial military, energy and US-dollar-denominated future world is predicated upon the scenario of the exhaustion of fossil fuels, in which conflicts for resources appropriation and distribution take place in the far-from-equilibrium theater of planetary climate change and environmental transformations.²³ The Anthropocenic constellation of unstable earth systems, planetary environmental catastrophes, chronic conditions of ecological vulnerability, adaptation and extinction has emerged in the context of the eco-social devastations unleashed and controlled by currency fluctuations, risk financialization, and the securitization of energy resources (Cooper, 2010).

The transition from a politico-philosophical discourse of nature and conservation to an ecological paradigm centered on the management of the environment has profoundly transformed the mechanisms of government and control, and led to the elaboration of pervasive concepts of eco-governmentality, such as Ulrich Beck's 'reflexive regulation'.²⁴ As environmental sciences are leading sites of production for socio-economic and military knowledge, political ecologies have tirelessly explored the convergences of system ecologies, economics, and geopolitical strategies, debunking the supranational environmental consensus shaped in the 1970s by neo-Malthusian population control and from the 1980s by the ideology of 'sustainable development' (Enzensberger, 1974; Sachs, 1993; Escobar, 1996; Peet and Watts, 1996; Luke, 1997; Watts, 2015).

With the Anthropocene thesis, the neoliberal project of a world order that reconciles ecology and economics has reached another stage: it has abandoned the equilibrium presuppositions of 'sustainable development' and presented itself as an all-encompassing state of nature of late capitalism; the benign steward, or grim sovereign, of a geohistorical planetary disorder. Along the way, the global has become the Earth (Höhler, 2014), and the Earth has metamorphosed into Gaia and Chthulu, thus revealing another figure of power: geopower.

The naturalness of the population

Biopower, a concept introduced by Michel Foucault in the late 1970s, is a key tool for political ecology's efforts to unmask environmental 'governmentality' – another category borrowed from Foucault.²⁵ On 11 January 1978, Michel Foucault began his lecture series 'Security, Territory, Population' at the Collège de France by declaring his intention to group under the label of 'biopower' a number of phenomena and a set of mechanisms that have secured the government of the life of populations: 'This year I

would like to begin studying something that I have called, somewhat vaguely, biopower' (Foucault, 2007: 16).²⁶ The concept of biopower captures the political technologies that allow the biological features of the human species to become visible and manageable; and crucially, it defines a new object, the biological life of populations, and also a new meaning of naturalness and security.

Michel Foucault's biopower challenged the state of nature apparatus of the social contract tradition through a radically different set of categories, the 'naturalness' constructed by political economy, demography and public health which, beginning in the mid-eighteenth century, replaced the legal fictions of social contract theory with administrative norms managing the life of populations. In post-Enlightenment societies, the state of nature of social contract theory gives way to a naturalness correlated to the fecundity, mortality and productivity of Europe's inner masses. According to Foucault, the sciences of life, labor and production presuppose a new terrain, a positive and productive 'naturalness of the population', a *biopolitical state of nature* (Luisetti, 2016). The subjects of this regime of power are not the abstract individuals of Hobbes and Rousseau but the biological collectives managed, through the mediation of political economy, by state-coordinated techniques of bioregulation. A population can be said to be natural, according to Foucault, only in so far as it resists the 'sovereign's legalistic voluntarism', appearing as a 'thick natural phenomenon'; not a primary datum but the result of a series of variables such as climate, material surroundings and the intensity of commerce (Foucault, 2007: 71). Foucault shows how populations have become the target of new modes of government, and the subjects of legal-theory have been taken over by the human species, the protagonist of a non-juridical state of nature.

Through the category of 'milieu', understood as a socio-natural space of mediation and circulation of actions, Foucault traces the connection between populations and the 'quasi-natural' events that occur around populations (Foucault, 2007: 37). What will become the environment of the Anthropocene discourse, the system of feedback effects produced by natural and artificial givens and populations, is contained by Foucault within the limits of an 'artificial milieu' centered on the life forces of populations: 'we see the sudden emergence of the problem of the "naturalness" of the human species within an artificial milieu' (Foucault, 2007: 37). Foucault quotes a 1778 text by Jean-Baptiste Moheau, *Recherches sur la population*, which advocates for the national government's control of 'the air temperature' in order to 'improve the climate' and thus the health of districts, specifying several natural variables necessary for the creation of a 'new climate': use of forest and fuels, cultivation and occupation of soil and the 'vicissitudes in the physical domain' (Foucault, 2007: 38). This discursive constellation discloses, according to Foucault, the appearance of 'a political technique that will be addressed to the milieu', the deployment of 'mechanisms of security' aware of the 'perpetual intrication of a geographical, climatic and physical milieu with the human species' (Foucault, 2007: 38). Although Foucault clearly recognizes, through the securitization of the milieu, the emerging features of a form of power centered on the ecological environment, in which human populations are simply variables among others, Foucault's biopolitical researches continue to focus on the anthropological dimension of the population. Since the target of regulation is the human species, in its biological and bodily constitution, the milieu functions only as 'a nature in relation to a population'

(Foucault, 2007: 37). Despite the role that the environment acquires in the government of populations, it is biopower, the government of the bios of the human species, the behavior and physiology of human agents, which absorb Foucault's interest.

Before turning his gaze to the premodern genealogy of the power over life, Foucault's exploration of biopower extended into German and American neoliberalisms (Foucault, 2008). Foucault's understanding of neoliberalism, as it emerged after the 1938 Walter Lippmann Colloquium, is shaped by the political anthropology of the *homo oeconomicus*, as opposed to the formalism of liberal thought.²⁷ In his preoccupation to disentangle biopower from the categories of political philosophy, Foucault emphasizes the divergence between the vocabularies of sovereignty and regulatory normativity (Ewald, 1990).²⁸ Foucault's analyses concentrate on the economization of populations' conduct, on the political techniques aimed at domains of behavior that escape traditional market forms, such as the family, the birth rate, and delinquency.

As in *Security, Territory, Population*, in Foucault's interpretation of Chicago School neoliberalism, the milieu reappears as 'the image, idea, or theme-program of a society... in which there is an environmental type of intervention instead of the internal subjugation of individuals'; a topic that Foucault promises to develop in his seminar (Foucault, 2008: 260).²⁹ Neither this lecture series nor his future work will keep this promise, failing to address that 'environmental type of intervention', which could have shifted Foucault's research away from an anthropological research centered exclusively on human capital and biopower. Foucault will never envision the nature of geopolitics, the mechanisms of ecological government that, at the time of his lectures on biopower, had already displaced *homo oeconomicus* and inserted markets and populations into the thick network of environmental affects, disciplines, security and regulations.³⁰ Whereas the interpretative framework of biopower is constructed upon the naturalness, security and optimization of the life-forces of populations, geopolitics presupposes the government of species, ecosystems, biogeochemical and physical processes and new forms of security (Dalby, 2014). Even when Foucault explores the 'environmental' jurisprudence introduced by neoliberalism, his preoccupation is the environment of the 'human capital' (Vatter, 2018: 17–18). On the contrary, geopolitics regulates the planetary environment, marginalizing human capital and thus setting the stage for the Earth politics of late capitalism (Connolly, 2017).³¹

The birth of geopolitics

The concept of geopolitics has circulated for several years without reaching a comprehensive articulation or semantic equilibrium.³² Timothy Luke has intuited that, since the logic of state-based regulation of populations growth has been integrated by 'multi-centric alliances of transnational capital' and green 'enviroming' of the economy (Luke, 1995: 63), geopolitics, as the specific form of environmental 'eco-nomics' and 'eco-knowledge' (1995: 80), should complement Foucault's discourse on biopower and governmentality. Christophe Bonneuil and Jean-Baptiste Fressoz have followed suit, defining geopolitics as the technocratic environmental interventions accompanied by the geo-knowledge provided by imperial ecologies, Earth system sciences, and geo-engineering (Bonneuil and Fressoz, 2016: 87–90). Moving beyond these Foucauldian

approaches to geopower, which limit their scope to the dictionary and logic of environmental power-knowledge, Kathryn Yusoff has expanded on the Deleuzian ontology of Earth forces of Elizabeth Grosz (Yusoff et al., 2012), and proposed that a new field of inquiry, political geology, should investigate the inhuman dimensions of 'geologic life' (Yusoff, 2013: 779–95). Geopower seeks to 'loosen the hold of biopolitics' (Clark and Yusoff, 2017: 19), shifting the attention of critical theory from the bios to the geos, from biology to geophysics, from an anthropological fixation on biological life to the 'geo-social' formations that emerge under the influence of nonorganic forces and timescales (Yusoff, 2017: 129–46).

Yusoff's reorientation of geopower towards nonbiological processes closely resonates with Elizabeth Povinelli's thematization of 'geontopower' (Povinelli, 2016). Foucault's survey of biopower is a critical model but it is not sufficient: we need to visualize the operations of 'geontopower', a mechanism of governmentality that, as settler colonialism vividly shows, includes both life and nonlife (2016: 168–77).³³ An inflated notion of the vital should not erase the metaphysical separation, functional articulation, and capitalist control of inert Earth formations and animate life species. Late liberalism's accumulation mechanisms and indigenous resistance take place within the ontological boundaries and existential intimacy of both bios and geos (2016: 16). Geontopower is an exercise of power that has at its core the production, government, and policing of the difference between life and nonlife, animation and inertia (2016: 4–9). The extraction of value from populations and the Earth, with the support of the biological, statistical, and geophysical sciences, presupposes a rigid differentiation and composition of life and the lifeless (2016: 44–5). Geontopower is an activity of separating, fixing and aggregating what is different: the biopolitical regulation of populations and the environmental management of natural resources (2016: 173). Also the grand narrative of the Anthropocene, the pathos of the extinction of species and human life, depends on the articulation of the geos and bios, since 'without Life and Nonlife, there is no extinction and no mass death' (2016: 175).³⁴

My thesis is that, as the 1938 Walter Lippmann Colloquium initiated the intellectual framework of neoliberal governmentality (Dardot and Laval, 2014: 49–74), the 1972 United Nations Conference on the Human Environment held in Stockholm³⁵ paved the way for contemporary Earth politics and the birth of geopower.³⁶ The monograph *Only One Earth* (Ward and Dubos, 1983), an integral part of the preparation for the Conference on the Human Environment, alarmingly described the environmental challenges to the 'survival of man', and called for a new 'planetary order' and enforcement of global ecological sovereignty that could harness the 'shared biosphere' (1983: 4). Following these initiatives, a string of intergovernmental conferences and reports on the state of the Earth has addressed the interplay of populations and ecosystems, building supranational regulatory schemes and keywords – 'scientific consensus' – for ecological thinking and environmental management. The 1987 United Nations Brundtland Report led to the establishment of the United Nations 'sustainable development' agenda and the Intergovernmental Panel on Climate Change (IPCC), setting the stage for the International Geosphere-Biosphere Programme (IGBP), the 1992 Rio de Janeiro Earth Summit, the 1997 Kyoto Protocol, the 2009 United Nations Framework Convention on Climate Change (UNFCCC), the 2012 United Nations Conference on Sustainable Development

(Rio + 20) and Future Earth global environmental change programs, the 2015 Sendai Framework for Disaster Risk Reduction and the 2016 Paris Agreement on climate change.³⁷ With the Earth system ‘planetary boundaries’ paradigm, propagated by the Stockholm Resilience Centre and embedded in EU environmental policies and the United Nations 2030 development targets, and the Future Earth-sponsored global research and policies projects, the neoliberal paradigm shifts from ‘human capital’ and biopolitics to ‘natural capital’ and geopower, from the life of human populations to the ‘stewardship’ of environmental life-cycles (Rockström and Klum, 2015). Through global environmental standards, natural hazards risk management, geo and meteo security, and the economic and military scenario planning based on their computer modeling assessment, geopower inserts the life of *homo aeconomicus* into the land, sea, and air, combining human populations’ regulation with systems ecologies and Earth sciences.

Since the planetary environment has become the target of governmentality, a different approach from the biopolitical management of populations and the juridical exercise of sovereignty has emerged. Geopower shifts governmental techniques from populations and goods to species, energy flows and ecosystems, from political economy to imperial ecologies, from economics and biology to the Earth system (Löwbrand et al., 2009; Dryzek and Stevenson, 2011). Its goal is allowing asymmetrical planetary circulations of energy, materials, species and information to take place, ensuring that living and nonliving things are in movement but in such a way that the balance of power is preserved, and the dangers of circulation and environmental transformations are contained by geosecurity.

Geopower is concerned with population dynamics, but only insofar as it affects ecosystems and territories. Its object is not the life-force of populations and their demographic trends but their planetary habitat. A whole series of phenomena are made visible for possible forms of knowledge based on the constitution of the Earth as the object of strategies of power. In turn, because these methods and discourses carve out new objects, the Earth is conceptualized as the privileged correlate of contemporary transnational mechanisms of power and global geography of extraction. The Earth is for geopower the repository of ‘ecosystem services’, of ‘supporting, provisioning, regulating and cultural services’, from soil formation, food production, and mineral extraction to carbon sequestration, waste decomposition and ecotourism (SCEP, 1970).

Although environmental governance seems to instantiate a decipherable logic of geopower, born out of Western-dominated systems ecology and neoliberal approaches to risk, security, unpredictability, emergency and regulation, the state of nature of the Anthropocene also includes other dominant features – such as species thinking, neo-Malthusianism, a fascination with non-life, object-oriented and neo-animistic ontologies, global sovereigns and commons, the imaginary of extinction and mutation – that hint at a more complex, ambiguous and also archaic nature of geopower. Political ecology’s critical gaze on eco-governmentality represents a preliminary step; but as Povinelli has argued (2016: 168–77), geopower has also a privileged relation with deep time and the inert, a subtle affinity with the exhaustion of life, and the tendency to disrupt the figures of environmental sovereignty that it breeds. Since geopower is a concept that stands between its object of analysis and critique, both a diagnostic and a prognostic category acquiring meaning and form in relation to the states of nature of late capitalism,

in order to capture its variable configuration, instead of ‘facing Gaia’ (Latour, 2013), we may need to visualize the contours, personages and effects of the Anthropocene.

The primal horde

The naturalistic ‘ghosts and monsters of the Anthropocene’ (Lowenhaupt Tsing et al., 2017), the ecological demons of Gaia and Chthulu, the multispecies living fossils and the climate Leviathans that populate the ecological states of the nature are resuscitating a familiar colonial concept, formalized in the second half of the nineteenth century by Sir Edward Burnett Tylor: animism.³⁸ The animist is a ‘governing ghost’ of late liberalism, ‘a mechanism of control and discipline’ of ‘totemic’ and ‘animist’ populations that now include also ‘the contemporary recycling subject, new Paganism, actant-based science and technology studies’ and ‘the psycho-cognitive diagnosis of certain forms of autism and Asperger’ (Povinelli, 2016: 17, 27). At the same time, animism is often charged with critical connotations and embraced in order to liquefy the margins separating biological subjects from inanimate objects, as a decolonial ontology of mineral formations and vegetable beings, a provocative signpost for reclaiming non-Western forms of knowledge within the contemporary networks of capitalist information.³⁹ In Deleuze and Guattari’s geophilosophy and its offshoots,⁴⁰ the profile of a planetary ecological state of nature emerges from the composition of humans that are no longer subjects and things that are not objects, disclosing a lifeworld in which ‘vibrant matter’, neo-shamanic themes, indigenous analytics and natural sciences cohabit:

It’s a world which at its root is anti-monotheistic. It opposes everything that belongs to monotheism, meaning mono-atropism, mono-subjectivism, and the idea that ONE is the form that being must assume in order to be of valuable... Animism is the ontology of societies against the state.⁴¹

Also totemism – another key notion of nineteenth-century and early twentieth-century colonial anthropology – has made its return in the states of nature designed by geopower, reenacting Sigmund Freud’s counter-genealogy of the state of society. Mostly discredited after Lévi-Strauss’s critique (Lévi-Strauss, 1963), totemism is now back in the social sciences after their ontological turn, as an epistemic category organizing social groups’ modes of relation to their totemic ancestors (Descola, 2013). Considered by some anthropologists as a form of ‘segmentary animism’, in which the same animic principle of personhood attributed to nonhumans in Amazonian animism is applied by differentiated human collectives to ‘species-beings’ such as plants and animals,⁴² totemism stands for interspecies relations and genealogic politics.

In *Totem and Taboo* – Freud’s (1913) synthesis of conjectural anthropology, social theory and psychology – a ‘primal horde’, a homogeneous prehistorical state of human society from which civilization emerges, explains the origin of totemic practices from patriarchal despotism: ‘There is only a violent, jealous father who keeps all the females for himself and drives away the growing sons’ (Freud, 1919: 235).⁴³ From this hypothetical situation, a violent act follows: the expelled brothers ‘joined forces, slew and ate the father, and thus put an end to the father horde’ (1919: 235). As a psychological

compensation for the remorse and sense of guilt caused by this criminal action, the brothers replace the father with a totem, a nonhuman duplicate of its authority and strength, towards which all the ambivalent feelings and attempts at reconciliations can now be directed (1919: 241). Society, religion and morality have thus a shared origin, an ethnographic primal scene: they are 'based on complicity in the common crime', they presuppose a continuity between the identification with animals, the father and their symbolic substitute (1919: 241).

As in multispecies epistemologies and the decolonial 'pluriverse of socionatural configurations' (Escobar, 2018: 4), Freud's totemic genealogy of the state of nature challenges the artificial rationality of the social contract and interlaces the founding mechanisms of social institutions with the interspecies continuity of animals and humans. Through this displacement of society, from human agreements to identifications with nonhuman beings, *Totem and Taboo* sets the stage for an enlargement and pluralization of the state of nature, which Freud contains with the help of the colonial discourse of savageness and civilization, the universality of the Oedipus complex, and a metaphysics of guilt.⁴⁴

The persistence of the categories of animism and totemism illustrates how geopower structures the species thinking of the Anthropocene along the political demonology of the state of nature.⁴⁵ Coming to terms with geopower thus requires acknowledging the formation of contemporary environmentality and neoliberal ecologies, but also recognizing the transformation of the state of nature conjectural histories, which hold together political myths and legal norms, affective landscapes and climate science. The catastrophism, metamorphoses and sovereigns that characterize the narrative of the Anthropocene, the survivalist myths, the 'mutant' media ecologies that thrive in polluted and decaying 'unenvironments' (Parikka, 2015), the uncanny literary demonologies arising from fossil fuels and oil geopolitics (Pasolini, 1997; Negarestani, 2008) reveal features of geopower that we would not learn from the IMF's environmental risk reports.

Despite late capitalism's efforts to neutralize political conflicts and impose the transcendental template of a unified planetary ecosystem (MEA, 2005), the states of nature unleashed by geopower have become a battleground for multinational corporations, rewesternizing intergovernmental institutions, environmental justice activists and decolonial movements.⁴⁶ The construction of 'green states' (Eckersley, 2004) and global Leviathans, charged with imposing the parameters of adaptation and survival to mediated environmental disturbances, has met the resistance of indigenous communities, which question the logic of 'ecological sovereignty' (Smith, 2011) and the political demons of the Anthropocene.⁴⁷

Declaration of conflicting interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

Notes

1. See IPCC (2014) and Baucom and Omelsky (2017).
2. See Clark (2014) and Swyngedouw (2010).
3. With few exceptions (such as Ulloa, 2017), regarding the 'critical' climate change, academic scholarship does not question the apocalyptic framework constructed by Earth system science through intergovernmental bodies. See, for instance, Tom Cohen and Claire Colebrook's presentation of their Critical Climate Change book series for Open Humanities Press:

The possibility of extinction has always been a latent figure in textual production and archives; but the current sense of depletion, decay, mutation and exhaustion calls for new modes of address, new styles of publishing and authoring, and new formats and speeds of distribution (<http://www.openhumanitiespress.org/books/series/critical-climate-change/>).

- On the history of environmental disaster epistemology, see Oliver-Smith and Hoffman (1999).
4. According to (Ellis, 2018: 130):

Perhaps the most popular interpretation of the Anthropocene . . . is as a catastrophic, human-induced shift in Earth's functioning as a system. In this view, recognizing the Anthropocene is the same as acknowledging the serious global consequences of climate change, mass extinctions, and other anthropogenic environmental changes.

- General ecology as the response to environmental Armageddon is advocated also by Félix Guattari: 'The Earth is undergoing a period of intense techno-scientific transformations. If no remedy is found, the ecological disequilibrium this has generated will ultimately threaten the continuation of life on the planet's surface' (2000: 27).
5. Through this neoliberal discourse of crisis and adaptation, institutional policies, artistic practice, critical theory and political imagination are converging into the 'tacit union' of 'a governmental philosophy of Nature and Society so all-encompassing and resilient to critique that the effects of political interventions (and non-interventions) made in its name, even when catastrophic, seem as inescapable as the weather' (Walker and Cooper, 2011: 3). On disaster risk reduction (DRR) from a critical human geography perspective, see Donovan (2017).
 6. In 2000, Nobel Laureate Paul Crutzen and Eugene F. Stoermer proposed in the International Geosphere-Biosphere Programme (IGBP)'s *Global Change Newsletter* that humanity had driven the world into a new geological epoch, the Anthropocene. The related article was published in the journal *Nature* in 2002 (Crutzen, 2002).
 7. On the impact of Chakrabarty's essay, see Emmett and Lekan (2016).
 8. Alison Bashford traces historically the genealogy of 'species thinking', showing how an Earth discourse centered on world population emerged from a Malthusian paradigm that systematically blended political economy and natural history (Bashford, 2014: 30–8). Thomas Robert Malthus's *An Essay on the Principle of Population* (1798), which also laid the foundations for Darwin's natural selection, inaugurated a planetary version of biopower from which the ecologies of geopower emerged (Bashford, 2014: 355–64). Malthusian-inspired economies of nature, initially an Anglophone imperial paradigm, provided in the 1920s and 1930s the impulse and categories for the intergovernmental management of the world population 'problem', the first instance of a supranational environmental government of natural resources.
 9. Quoted by Chakrabarty (2017: 8).

10. According to Bruno Latour, the Anthropocene is ‘the most decisive philosophical, religious, anthropological and political concept yet produced as an alternative to the very notions of “Modern” and “modernity”’ (2013: 77).
11. The Anthropocene paradigm is the brainchild of global institutional actors coalesced into the computer modeling of Earth system science and the International Geosphere-Biosphere Programme (IGBP) and Future Earth global environmental change research and policies programs. The main proponents of the Anthropocene thesis, Paul Crutzen and Will Steffen, are also protagonists of these institutions, which have masterminded the most influential global Earth system science and Anthropocene initiatives: the Global Change Open Science Conference, held in Amsterdam in 2001, and the *Global Change and the Earth System: A Planet under Pressure* report (Steffen et al., 2004). The 2001 ‘Amsterdam Declaration’ stated that anthropogenic forces were ‘equal to some of the great forces of nature in their extent and impact’ and called for ‘an ethical framework for global stewardship and strategies for Earth system management’: <http://www.igbp.net/about/history/2001amsterdamdeclarationonearthsystemscience.4.1b8ae20512db692f2a680001312.html>
12. Christophe Bonneuil and Jean-Baptiste Fressoz have pluralized epoch-defining terms and polemically displaced the geocratic narrative of the Anthropocene through the Thermocene, Thanatocene, Phagocene, Phronocene, Agnotocene, Capitalocene, and Polemocene (Bonneuil and Fressoz, 2016). See also other state of nature contenders such as the Capitalocene (Moore, 2015), the Neganthropocene (Stiegler, 2018) and the Ecocene (Boehnert, 2018). For neo-Marxist approaches to the Anthropocene, see Nelson and Braun (2017).
13. According to Crutzen and Stoermer (2010: 17):

To assign a more specific date to the onset of the ‘anthropocene’ seems somewhat arbitrary, but we propose the latter part of the 18th century . . . Such a starting date also coincides with James Watt’s invention of the steam engine in 1784.

A growing consensus based on stratigraphic evidence and Earth system indicators locates the beginning of the Anthropocene in the second half of the twentieth-century Great Acceleration (Steffen et al., 2015).
14. The global institutional framework for disaster epistemologies is provided by the biennial UN Global Assessment Report on Disaster Risk Reduction (GAR), the main report of the United Nations on worldwide efforts to reduce disaster risk: <https://www.preventionweb.net/english/hyogo/gar/2015/en/home/index.html>
15. See Jacques Derrida (2011) and Jodi A. Byrd’s analysis of the ‘political bestiary of sovereignty’ and state of nature pathology of political philosophy (Byrd, 2015: 127).
16. ‘Since politics has always been conducted under the auspices of nature, we have never left the state of nature’ (Latour, 2004: 235).
17. On climate wars and ‘climate fascism’, see Parenti (2011).
18. Wicca practices, anarcho-primitivisms and rewilding movements can also be seen as grass-roots expressions of the current metamorphoses of the state of nature of Western political modernity.
19. According to Lowenhaupt Tsing et al. (2017: M5):

Life has been monstrous almost from its beginnings . . . Enlightenment Europe, however, tried to banish monsters. Monsters were identified with the irrational and the archaic . . . Our

monsters and ghosts help us notice landscapes of entanglement, bodies with other bodies, time with other times.

20. See the Rio de Janeiro conference 'The Thousand Names of Gaia: From the Anthropocene to the Age of the Earth', 15–19 September 2014: <https://thethousandnamesofgaia.wordpress.com>
21. Feminist critics of Haraway's Cthulucene have noted her neo-Malthusian fear of population growth and sovereignty-obsessed imaginary. According to Lewis (2017):

The weird, faux-arcanic sound of the word 'Cthulhu' has a widespread ability to conjure images of apocalypse, and perhaps piles of skulls. A cursory scan of scholarship on Lovecraftian literature suggests a stable consensus that the Cthulhu Mythos was (and remains) the vehicle of a genocidal fever-dream and obsessional racism . . . Tentacular, spidery aesthetics are all well and good, but they do not escalate anything. These vague 'chthonic' signifiers of well-meaning are a flimsy challenge to their namesake, the Great Old One, Cthulhu – that vivid necro-patriarchal savior-figure who is a caricature, arguably, of imperial capital.

22. On the cultural ecologies of the ecological state of nature, see Iovino and Oppermann (2014).
23. According to Cooper (2010: 169):

As ice caps melt, formerly un-navigable ocean routes and deep-sea ocean beds have been opened up to imperial conquest. The prospect of climate change and dwindling fossil fuel supplies has intensified rather than diminished territorial struggles over oil reserves and transportation routes.

24. Tailored to the catastrophic ecological dimension of political modernity, Ulrich Beck's 'risk society' paradigm (Beck, 1992; 1995) has offered to environmental politics an array of categories for expanding the mechanisms of regulation and control to civil society and corporate actors:

There are numerous examples of elements of reflexive regulation, which can be differentiated into formal and informal reflexive regulation . . . Among the formal approaches could be counted self-commitments, privatized regulation, mediation processes, sentencing guidelines, voluntary agreements between government and industry, as well as environmental management and auditing schemes. More informal examples are codes of conduct (imposed by governments, supranational actors or industry associations), networks, institutional co-operations, and informal environmental agreements. (Matten, 2004: 385)

On the limitations of Beck's 'compulsory cosmopolitanism' approach to global environmental risks, see Zhang (2015).

25. See Burchell et al. (1990), Luke (1995) and Agrawal (2005).
26. Foucault first introduced the term 'biopower' in his 17 March 1976 lecture on the power over life (Foucault, 2003: 239–64).
27. Michel Foucault draws a sharp distinction between the neoliberal *homo oeconomicus* and the *homo juridicus*: 'I think this is an important moment when political economy is able to present itself as a critique of governmental reason . . . There is no sovereign in economics. There is no economic sovereign' (Foucault, 2008: 283).
28. 'The problematic of the economy is by no means the logical completion of the great problematic of sovereignty . . . The idea of an economic-juridical science is strictly impossible and what is more it has never in fact been constituted' (Foucault, 2008: 282).
29. On Foucault's analysis of neoliberal environmental interventionism, see Taylan (2013).

30. Giorgio Agamben's politico-theological interpretation of biopower, reduced to the logic of a permanent 'state of exception' and 'civil war' (Agamben, 2005, 2015), fails to recognize the environmental nature of contemporary governmentality and the emergence of geopower.
31. See Gros (2014), Dalby (2014) and Al-Rodhan (2006).
32. See Dillet (2016).
33. On decoloniality and geopower, Mignolo (2011) and Claire (2013).
34. Against these Western modes of power and forms of governing existents, Povinelli opts for a non-anthropocentric indigenous analytics of transformation that de-dramatizes human life, folds life into nonlife, and imagines that 'things are neither born nor die, though they can turn away from each other and change states' (2016: 28).
35. In 1972, also the influential Club of Rome's *The Limits to Growth* (Meadows et al., 1972) and the UNESCO alarming monograph *Planet in Peril? Man and the Biosphere Today* (Dasmann, 1972) were published.
36. See Walker and Cooper (2011) on the role played by complex systems theory in the development of a post-developmental approach to ecosystems, and the convergence of system ecology and neoliberalism in Friedrich von Hayek and Crawford S. Holling.
37. See also the United States' *The Global 2000 Report to the President* (O'Barney, 1982), and the United Nations' reports *Our Common Future* (World Commission on Environment and Development, 1987) and the Millennium Ecosystem Assessment (MEA, 2005).
38. On the resurgence of animism, see Lazzarato (2012) and Harvey (2015).
39. See Franke (2010), Kohn (2013), Viveiros de Castro (2014) and Irigaray and Marder (2016).
40. Gilles Deleuze and Félix Guattari's geophilosophy, sketched out in *A Thousand Plateaus: Capitalism and Schizophrenia* (1987), runs alongside Foucault's enquiry into technologies of power. Their semiotic and naturalistic vocabulary of strata, assemblages, metamorphoses, taxonomies, molecularity, and energy flows, their 'geology of morals' (1987: 39), has created a lineage of Earth ontologies that includes Grosz's cosmic vitalism (2008), Bennett's political animism (2010), and the poetics of geosocial strata of De Landa (2000), Yusoff (2013) and Clark (2014).
41. Melitopoulos and Lazzarato (2012: 7).
42. Sahlins (2014).
43. On the 'primal horde', see Smith (2016).
44. *Totem and Taboo* is also an awkward statement of colonial prejudice and evolutionary dogmatism. Relying on a vast corpus of stereotypes about the savageness of non-European populations – cannibalism, lack of morality, elementary social organization – and the fictional homology between the animal, the child, the primitive and the neurotic, Freud speculates on the system of beliefs attributed to Australian 'savage races'.
45. See Szerszynski (2017) and Vignola (2017).
46. According to Mignolo (2016: 14):

Decolonial arguments and non-state organisations led by Pueblos Originarios provide the groundwork for this thinking and revamping of a group's own ancestral, non-Western knowledge – that is, delinking from Western antecedents grounded in Greece and Rome... Revamping their own civilisational patterns, entangled with Western dominant civilisational patterns in Bolivia, Ecuador, Canada, Chile, Guatemala, the US, New Zealand, and Australia, requires both philosophical rebuilding and educational remapping.

47. As instances of the resistance against the Anthropocenic crisis narrative, see the counter-hegemonic politics of nature practiced by indigenous movements in Colombia (Ulloa, 2005), the Bolivian and Peruvian Andes (Ari, 2014; De la Cadena, 2015) and Chiapas (EZLN, 2016).

References

- Agamben G (2005) *State of Exception*. Chicago: University of Chicago Press.
- Agamben G (2015) *Stasis: Civil War as a Political Paradigm*. Stanford, CA: Stanford University Press.
- Agrawal A (2005) *Environmentality: Technologies of Government and the Making of Subjects*. Durham, NC: Duke University Press.
- Al-Rodhan N (ed.) (2006) *The Geopolitical and Geosecurity Implications of Globalization*. Geneva: Editions Slatkine.
- Ari W (2014) *Earth Politics: Religion, Decolonization, and Bolivia's Indigenous Intellectuals*. Durham, NC: Duke University Press.
- Bashford A (2014) *Global Population*. New York: Columbia University Press.
- Baucom I and Omelsky M (eds) (2017) Climate change and the production of knowledge. *South Atlantic Quarterly*, special issue, 116(1).
- Beck U (1992) *Risk Society: Towards a New Modernity*. London: Sage.
- Beck U (1995) *Ecological Politics in an Age of Risk*. Cambridge: Polity Press.
- Bennett J (2010) *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Boehnert H (2018) *Design, Ecology, Politics Towards the Ecocene*. London: Bloomsbury.
- Bonneuil C and Fressoz J (2016) *The Shock of the Anthropocene: The Earth, History and Us*. London: Verso.
- Burchell G, Gordon C and Miller P (eds) (1990) *The Foucault Effect. Studies in Governmentality*. Chicago: University of Chicago Press.
- Byrd JA (2015) Mind the gap. In: Luisetti F, Pickles J and Kaiser W (eds) *The Anomie of the Earth: Philosophy, Politics, and Autonomy in Europe and the Americas*. Durham, NC, Duke University Press.
- Chakrabarty D (2009) The climate of history: four theses. *Critical Inquiry* 35(2): 197–222.
- Chakrabarty D (2017) The politics of climate change is more than the politics of capitalism. *Theory, Culture & Society* 34(2–3): 25–37.
- Claire S (2013) Geopower: the politics of life and land in Frantz Fanon's writing. *Diacritics* 41(4): 60–80.
- Clark N (2014) Geo-politics and the disaster of the Anthropocene. *Sociological Review* 62: 19–37.
- Clark N and Yusoff K (2017) Geosocial formations and the Anthropocene. *Theory, Culture & Society* 34(2–3): 3–23.
- Connolly WE (2017) *Facing the Planetary: Entangled Humanism and the Politics of Swarming*. Durham, NC: Duke University Press.
- Cooper M (2008) *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*. Seattle, WA: University of Washington Press.
- Cooper M (2010) Turbulent worlds. *Theory, Culture & Society* 27(2–3): 167–90.
- Crutzen P (2002) Geology of mankind: the Anthropocene. *Nature* 415: 23.
- Crutzen PJ and Stoermer EF (2000) The “Anthropocene”. *Global Change Newsletter*, 41, 17.

- Crutzen P and Stoermer EF (2010) Have we entered the 'Anthropocene'? *International Geosphere-Biosphere Programme, Global Change* 41, October 31: 17–18.
- Dalby S (2014) Rethinking geopolitics: climate security in the Anthropocene. *Global Policy* 5(1): 1–9.
- Dardot P and Laval C (2014) *The New Way of the World: On Neoliberal Society*. London: Verso.
- Dasmann RF (1972) *Planet in Peril? Man and the Biosphere Today*. Harmondsworth: Penguin Book/UNESCO.
- De la Cadena M (2015) *Earth Beings: Ecologies of Practice across Andean Worlds*. Durham, NC: Duke University Press.
- De Landa M (2000) *A Thousand Years of Nonlinear History*. New York: Zone Books.
- Deleuze G and Guattari F (1987) *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press.
- Derrida J (2011) *The Beast and the Sovereign*. Chicago: University of Chicago Press.
- Descola P (2013) *Beyond Nature and Culture*. Chicago: University of Chicago Press.
- Dillet B (ed.) (2016) Geopower: a strato-analysis of the Anthropocene. *La Deleuziana* 4. <http://www.ladeleuziana.org/2016/12/30/4-geopower/>
- Donovan A (2017) Geopower: reflections on the critical geography of disasters. *Progress in Human Geography* 41(1): 44–67.
- Dryzek J and Stevenson H (2011) Global democracy and earth system governance, *Ecological Economics* 70: 1865–74.
- Eckersley R (2004) *The Green State: Rethinking Democracy and Sovereignty*. Cambridge, MA: MIT Press.
- Ellis CE (2018) *Anthropocene. A Very Short Introduction*. Oxford: Oxford University Press.
- Emmett R and Lekan T (eds) (2016) *Whose Anthropocene? Revisiting Dipesh Chakrabarty's 'Four Theses'*. Munich: Rachel Carson Center Perspectives.
- Enzensberger HM (1974) A critique of political ecology. *New Left Review*. 84: 3–32.
- Escobar A (1996) Construction nature: elements for a post-structuralist political ecology. *Futures* 29(4): 325–43.
- Escobar A (2018) *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham, NC: Duke University Press.
- Ewald F (1990) Norms, discipline, and the law. *Representations* 30: 138–61.
- EZLN (2016) *Critical Thought in the Face of the Capitalist Hydra I*. Durham, NC: PaperBoat Press.
- Foucault M (2003) *'Society Must Be Defended': Lectures at the Collège de France, 1975–1976*. New York: Picador.
- Foucault M (2007) *Security, Territory, Population: Lectures at the Collège de France, 1977–1978*. London: Palgrave Macmillan.
- Foucault M (2008) The birth of biopolitics. *Lectures at the Collège de France, 1978–1979*. New York: Picador.
- Franke A (2010) *Animism*. Berlin: Sternberg Press.
- Freud S (1919) *Totem and Taboo: Resemblances between the Psychic Lives of Savages and Neurotics*. London: Routledge.
- Gros F (2014) The fourth age of security. In: Lemm V and Vatter M (eds) *The Government of Life. Foucault, Biopolitics, and Neoliberalism*. New York: Fordham University Press.

- Grosz E (2008) *Chaos, Territory, Art: Deleuze and the Framing of the Earth*. New York: Columbia University Press.
- Guattari F (2000) *The Three Ecologies*. London: Athlone Press.
- Haraway D (2016) *Staying with the Trouble: Making Kin in the Chthulucene*. Durham, NC: Duke University Press.
- Harvey G (ed.) (2015) *The Handbook of Contemporary Animism*. London: Routledge.
- Hobbes T (1985) *Leviathan*. London: Penguin Books.
- Höhler S (2014) *Spaceship Earth in the Environmental Age, 1960–1990*. London: Routledge.
- Hörl E (2017) *General Ecology: The New Ecological Paradigm*. London: Bloomsbury Academic.
- Iovino S and Oppermann S (2014) *Material Ecocriticism*. Bloomington, IN: Indiana University Press.
- IPCC (2014) *Climate Change 2014: Synthesis Report*. Geneva, Switzerland: Cambridge University Press.
- Irigaray L and Marder M (2016) *Through Vegetal Being: Two Philosophical Perspectives*. New York: Columbia University Press.
- Kirksey E (ed.) (2014) *The Multispecies Salon*. Durham, NC: Duke University Press.
- Kohn E (2013) *How Forests Think: Toward an Anthropology Beyond the Human*. Berkeley, CA: University of California Press.
- Kolbert E (2014) *The Sixth Extinction: An Unnatural History*. New York: Henry Holt and Company.
- Landucci S (2014) *I filosofi e i selvaggi*. Torino: Einaudi.
- Latour (2004) *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, MA: Harvard University Press.
- Latour B (2010) *On the Modern Cult of the Factish Gods*. Durham, NC: Duke University Press.
- Latour B (2013) Facing Gaia: six lectures on the political theology of nature. Being the first version of the Gifford Lectures on Natural Religion as they have been given in Edinburgh, 18th–28th of February 2013. <http://www.bruno-latour.fr/sites/default/files/downloads/GIFFORD-ASSEMBLED.pdf>
- Lazzarato M (2012) *Animism: Modernity through the Looking Glass*. Köln: Walther König.
- Lévi-Strauss C (1963) *Totemism*. Boston, MA: Beacon Press.
- Lewis S (2017) Cthulhu plays no role for me. *Viewpoint Magazine*, May 8, 2017: <https://www.viewpointmag.com/2017/05/08/cthulhu-plays-no-role-for-me/>
- Lövbrand E, Strippel J and Wiman B (2009) Earth System governmentality: reflections on science in the Anthropocene. *Global Environmental Change* 19: 7–13.
- Lovelock J (2000) *Gaia: A New Look at Life on Earth*. Oxford: Oxford University Press.
- Lowenhaupt Tsing A, Swanson H, Gan E and Bubandt N (eds) (2017) *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. Minneapolis, MN: University of Minnesota Press.
- Luisetti F (2016) Notes on the biopolitical state of nature. *Paragraph: A Journal of Modern Critical Theory* 39(1): 108–21.
- Luisetti F (2017) Decolonizing Gaia. or, why the savages shall fear Bruno Latour's political animism. *Azimuth*, special issue, The Battlefield of the Anthropocene, ed. Baranzoni S and Vignola P, 7: 61–70.
- Luisetti F, Pickles J and Kaiser W (eds) (2015) *The Anomie of the Earth: Philosophy, Politics, and Autonomy in Europe and the Americas*. Durham, NC: Duke University Press.

- Luke T (1995) On environmentality: geo-power and eco-knowledge in the discourses of contemporary environmentalism. *Cultural Critique* 31(II): 57–81.
- Luke T (1997) *Ecocritique: Contesting the Politics of Nature, Economy, and Culture*. Minneapolis, MN: University of Minnesota Press.
- Malthus T (1998 [1798]) *An Essay on the Principle of Population*. Electronic Scholarly Publishing Project: <http://www.esp.org>
- Mann G and Wainwright (2017) *Climate Leviathan: A Political Theory of Our Planetary Future*. London: Verso.
- Matten D (2004) The impact of the risk society thesis on environmental politics and management in a globalizing economy: principles, proficiency, perspectives. *Journal of Risk Research* 7(4): 377–98.
- MEA (Millennium Ecosystem Assessment) (2005) *Ecosystems and Human Well-being: Synthesis*. Washington, DC: Island Press.
- Meadows DH, Meadows DL, Randers J and Behrens III W (1972) *The Limits to Growth; A Report for the Club of Rome's Project on the Predicament of Mankind*. New York: Universe Books.
- Melitopoulos A and Lazzarato M (2012) Interview with Eduardo Viveiros de Castro. *e-flux* 36(7).
- Mignolo W (2011) *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Durham, NC: Duke University Press.
- Mignolo W (2016) Sustainable development or sustainable economies? Ideas towards living in harmony and plenitude. DOC Research Institute, 2016: <https://doc-research.org/>
- Moore J (2015) *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. London: Verso.
- Negarestani R (2008) *Cyclonopedia: Complicity with Anonymous Materials*. Melbourne: Re.press.
- Nelson S and Braun B (eds) (2017) Autonomia in the Anthropocene: new challenges to radical politics. *South Atlantic Quarterly*, 116(2): 223–35.
- O'Barney G (1982) *The Global 2000 Report to the President*. London: Penguin Books.
- Oliver-Smith A and Hoffman S (eds) (1999) *The Angry Earth: Disaster in Anthropological Perspective*. New York: Routledge.
- Palmeri F (2016) *State of Nature, Stages of Society: Enlightenment Conjectural History and Modern Social Discourse*. New York: Columbia University Press.
- Parenti C (2011) *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books.
- Parikka J (2015) Mutating media ecologies. *Continent* 4(2): 24–32.
- Pasolini PP (1997) *Petrolio*. New York: Pantheon Books.
- Peet R and Watts M (eds) (1996) *Liberation Ecologies: Environment, Development, Social Movements*. London: Routledge.
- Povinelli E (2016) *Geontologies: A Requiem to Late Liberalism*. Durham, NC: Duke University Press.
- Rockström J and Klum M (2015) *Big World, Small Planet: Abundance within Planetary Boundaries*. Stockholm: Bokförlaget Max Ström.
- Rubiés JP (2011) Ethnography, philosophy and the rise of natural man, 1500–1750. In: Abbattista G (ed.) *Encountering Otherness. Diversities and Trans-Cultural Experiences in Early Modern European Culture*. Trieste: University of Trieste Press.
- Sachs W (ed.) (1993) *Global Ecology: A New Arena of Political Conflict*. London: Zed Books.

- Sahlins M (2014) On the ontological scheme of *Beyond nature and culture*. *HAU: Journal of Ethnographic Theory* 4(1): 281–90.
- SCEP (Study of Critical Environmental Problems) (1970) *Man's Impact on the Global Environment*. Cambridge, MA: MIT Press.
- Serres M (1995) *The Natural Contract*. Ann Arbor, MI: University of Michigan Press
- Smith M (2011) *Against Ecological Sovereignty: Ethics, Biopolitics, and Saving the Natural World*. Minneapolis, MN: University of Minnesota Press.
- Smith R (2016) Darwin, Freud, and the continuing misrepresentation of the primal horde. *Current Anthropology* 57(6): 838–43.
- Steffen W, et al. (eds) (2004) *Global Change and the Earth System: A Planet Under Pressure*. Berlin: Springer.
- Steffen W, et al. (2015) The trajectory of the Anthropocene: the Great Acceleration. *The Anthropocene Review* 2(1): 81–98.
- Stengers I (2015) *In Catastrophic Times: Resisting the Coming Barbarism*. London: Open Humanities Press.
- Stiegler B (2018) *The Neganthropocene*. London: Open Humanities Press.
- Strauss L (1965) *Natural Right and History*. Chicago: University of Chicago Press.
- Swyngedouw E (2010) Apocalypse forever? *Theory, Culture & Society*, 27(2–3): 213–32.
- Szerszynski B (2017) Gods of the Anthropocene: geo-spiritual formations in the Earth's new epoch. *Theory, Culture & Society* 34(2–3): 344–62.
- Taylan F (2013) L'interventionnisme environnemental, une stratégie néolibérale. *Raisons politiques* 52(4): 77–87.
- Tylor E (1958) *Primitive Culture, vol. 1: Religion in Primitive Culture*. New York: Harper and Row.
- Ulloa A (2005) *The Ecological Native: Indigenous Peoples' Movements and Eco-governmentality in Colombia*. New York: Routledge.
- Ulloa A (2017) The geopolitics of carbonized nature and the zero carbon citizen. *South Atlantic Quarterly* 116(1): 111–20.
- Vatter M (2018) Foucault and Becker: a biopolitical approach to human capital and the stability of preferences. In: Golder B and McLoughlin D (eds), *The Politics of Legality in a Neoliberal Age*. London: Routledge.
- Vignola P (2017) Notes for a minor Anthropocene. *Azimuth*, special issue, The Battlefield of the Anthropocene, ed. Baranzoni S and Vignola P, 9: 81–96.
- Viveiros de Castro E (2014) *Cannibal Metaphysics*. Minneapolis, MN: University of Minnesota Press.
- Viveiros de Castro E and Danowski D (2014) L'arrêt de monde. In: Hache É (ed.) *De l'univers clos au monde infini*. Paris: Dehors.
- Walker J and Cooper M (2011) Genealogies of resilience: from systems ecology to the political economy of crisis adaptation. *Security Dialogue* 42(2): 143–60.
- Ward B and Dubos R (1983) *Only One Earth: The Care and Maintenance of a Small Planet*. New York: Norton & Company.
- Watts M (2015) Now and then: The origins of political ecology and the rebirth of adaptation as a form of thought. In: Perreaults TA, Bridge G and McCarthy J. (eds), *The Routledge Handbook of Political Ecology*. New York: Routledge, 19–50.
- Weisman A (2007) *The World Without Us*. New York: Thomas Dunne Books/St. Martin's Press.

- World Commission on Environment and Development (1987) *Our Common Future*. Oxford: Oxford University Press.
- Yusoff K (2013) Geologic life: prehistory, climate, futures in the Anthropocene. *Environment and Planning D: Society and Space* 31(5): 779–95.
- Yusoff K (2017) Geosocial strata. *Theory, Culture & Society* 34(2–3): 129–46.
- Yusoff K, Grosz E, Clark N, Soldanha A and Nash C (2012) Geopower: a panel on Elizabeth Grosz's chaos, territory, art: Deleuze and the framing of the earth. *Environment and Planning D: Society and Space* 30(6): 971–88.
- Zalasiewicz J (2009) *The Earth After Us: What Legacy Will Humans Leave in the Rocks?* Oxford: Oxford University Press.
- Zhang JY (2015) Cosmopolitan risk community and China's climate governance. *European Journal of Social Theory* 18(3): 327–42.

Author biography

Federico Luisetti is Associate Professor of Italian Culture and Society at the University of St. Gallen. He is the author of books and essays on philosophy and critical theory, including *The Anomie of the Earth: Philosophy, Politics, and Autonomy in Europe and the Americas* (edited with John Pickles and Wilson Kaiser, Duke University Press, 2015).