NARRATIVES IN THE ANTHROPOCENE ERA

Charles Travis, Vittorio Valentino (Editors)

Preface by Kirill O. Thompson

IL Sileno Edizioni

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Geographies of the Anthropocene

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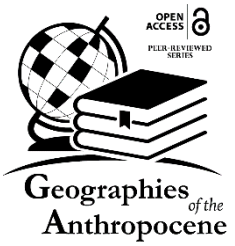
Charles Travis

Vittorio Valentino

Editors



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Geographies of the Anthropocene

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Geographies of the Anthropocene

Open Access and Peer-Reviewed series

The book series "Geographies of the Anthropocene" edited by Scientific International Publisher "Il Sileno Edizioni" will discuss the new processes of the Anthropocene epoch through the various worldviews of geoscientists and

humanists, intersecting disciplines of Geosciences, Geography, Geoethics, Philosophy, Socio-Anthropology, Sociology of Environment and Territory, Psychology, Economics, Environmental Humanities and cognate disciplines.

Geoethics focuses on how scientists (natural and social), arts and humanities scholars working in tandem can become more aware of their ethical responsibilities to guide society on matters related to public safety in the face of natural hazards, sustainable use of resources, climate change and protection of the environment. Furthermore, the integrated and multiple perspectives of the Environmental Humanities, can help to more fully understand the cultures of, and the cultures which frame the Anthropocene. Indeed, the focus of Geoethics and Environmental Humanities research, that is, the analysis of the way humans think and act for the purpose of advising and suggesting appropriate behaviors where human activities interact with the geosphere, is dialectically linked to the complex concept of Anthropocene.

The book series "Geographies of the Anthropocene" publishes online volumes, both collective volumes and monographs, which are set in the perspective of providing reflections, work materials and experimentation in the fields of research and education about the new geographies of the Anthropocene.

"Geographies of the Anthropocene" encourages proposals that address one or more themes, including case studies, but welcome all volumes related to the interdisciplinary context of the Anthropocene. Published volumes are subject to a review process (**double blind peer review**) to ensure their scientific rigor.

The volume proposals can be presented in English, Italian, French or Spanish.

The choice of digital Open Access format is coherent with the flexible structure of the series, in order to facilitate the direct accessibility and usability by both authors and readers.

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Preface

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Humanity's entrapment in the Anthropocene era is evoking a cacophony of responses. Originally coined by Eugene Stormer and Paul Krutzen in 2000 to characterize the emerging geological epoch, "the Anthropocene" evokes deep-rooted fears for nature and posterity as it captures people's imaginations and grows in salience and force. Indicating a procrustean interface between nature and humanity (human activities), the term is grasped variously by scholars in a swath of disciplines from geography and geoethics to social anthropology, archaeology, sociology of environment and territory, psychology, and economics, to the environmental humanities, philosophy, and related fields. The term also piques writers, artists, and musicians and grabs people of all walks of life. I have been intrigued and provoked by this term since 2010 upon joining *Humanities for the Environment* (HfO.org) as a comparative philosopher with interests in agricultural and food ethics and concerns about the environment and climate change.

Narratives could be told of humanity's emergent grasp of the "Anthropocene". A cursory way to adjudicate the views would be to distinguish between those human activities that are driving geological and climate trends, on the one hand, and their cumulative impact, as registered in the geological and climate record, the other. While capitalism, colonialism, and industrialization have been in play for centuries, their impact only reached critical geological mass around the end of World War II. While their impact on nature - the environment, indigenous peoples, biodiversity, and climate mounted over centuries -, signature events unfolded at the close of World War II and in the Postwar period: the testing and use of atomic weaponry, atomic energy, and most importantly the Grand Acceleration of industrial and economic development, urbanization, as well as industrial scale farming, with its vast output of CO2, widespread use of herbicides, pesticides, chemical fertilizers, overuse of antibiotics, and depletion and tainting of

aquafers[1]. Conditions have grown increasingly dire in the twenty-first century, with the greenhouse gases in the atmosphere increasing apace and the global virgin wilderness diminishing to nothingness.

Notably, since the impact of the Anthropocene is not equally due to the activities of every human being, alternative terms have been proposed that distinguish the main drivers, institutions, trends: *Capitalocene*, *Neo-Liberalocene*, *Econocene*, or *Plantationocene*. However, such distinctions don't matter geologically: what matters is that the geologic impacts are from distinctly *human* activities. And in fact, a majority of people in the world today are complicit if not responsible - by supporting environmentally irresponsible governments, using products made by irresponsible corporations, leaving larger carbon footprints. Everyone has to get on board. On that premise, it is of the utmost importance that the critical data be gathered and the causal factors considered in order to think through the mounting climate crisis "recorded by threatened corals, warming ice, and the sediments of Lake Crawford, laden with evidence of humanity's excesses" (Tripathy-Lang, 2021)[2]. For greater understanding will open paths of efficacious response.

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[1] The new phenomenon of Chinese swine production facilities rearing *gargantuan* Chinese hogs has a distinctly dystopian air-- the realization of a grotesque possibility of biotechnology. Atop remote Yaji mountain in southern China, an advanced pork production facility built and operated by Yangxiang corp. can raise 1700 super hogs the size of polar bears. Despite the facility's sparkling exterior and corporate claims of sanitation and biosecurity, the hogs live their entire lives in tight quarters, confined to one story (leaving 6 floors for management, labor, feed and supplies, and manure). Since the increased mass of the animals is geometrically greater than their increase in height and girth, it is doubtful that their joints and bones can comfortably bear their weight. Besides such physical discomfort, these intelligent, curious, gregarious animals would have no chance to root around, explore the natural environment, or even to socialize and play. Undoubtedly, such facilities would be perfect incubators for infectious disease. How many pork consumers would turn vegetarian if they were to find out how Yangxiang produces its pork? Cf. Standaert, Michael & Francesco De Augustinis, 2020, "A 12-storey pig farm: has China found the way to tackle animal disease?" *The Guardian* (18 September 2020): https://www.theguardian.com/environment/2020/sep/18/a-12-storey-pig-farm-has-china-found-a-way-to-stop-future-pandemics-

[2] Regarding the sediments of Lake Crawford, this article reads: "In sediment cores carefully extracted from the lake, scientists can see traces of Iroquois horticultural activity dating back at least 750 years, and evidence of invading European settlers in the mid-19th century, said… Ian Zalasiewicz. In the topmost layers curated by the lake, scientists can systematically search for signs of plutonium, cesium, radiocarbon, fly ash, and microplastics. Such signatures might indicate the beginning of the Anthropocene, a proposed addition to the geologic timescale governed by the International Commission on Stratigraphy (ICS)" (@DrAlkaTrip).

I posit that social science and humanities scholars offer *perspectives* on the on the human and natural forces in play in the Anthropocene while the scientists register and analyze the basic data, to compile *account books* of the cumulative human geo-impact. Taken together, these perspectives and account books disclose the complex, intricate *interwovenness* of phenomena, things, which are at once mutually implicative and open to understanding in wide swaths of perspectives. We are driven to accept that, far from being discreet, independent, and unique, phenomena, things, are interconnected and flow together and can be viewed and grasped in multiple ways.

The concept of color provides an example of our growing realization of the complexity of phenomena. A century ago, philosophers discussed colors or color sensations as examples of the most basic human sensory knowledge, as indubitable as the axioms and tautologies of logic. Colors were regarded as simple and unproblematic despite the physical conditions and causal processes known to support color perception. At the same time, while registering the subjectivity of such accounts of color, some philosophers begrudged there was an objective though imperceptible dimension of color (Moore, 1899). After having accepted the possibility of *simple* color statements in the *Tractatus* (Wittgenstein, 1921), Wittgenstein began to see problems with that view (Gierlinger, 2005). Unlike other kinds of simple statements, Wittgenstein found that alternative color statements did not manifest strict logical denials. In other words, for other kinds of simple statements, the truth of a statement implied the falsity or denial of its negation, and vice versa. However, with a color statement, such as "This patch is red", it turned out that the color is stated against a spectrum of colors so the logical exclusion and symmetry between a statement and its denial does not hold for color statements. Moreover, Wittgenstein found that colors *appear* differently when juxtaposed with different colors, so simplicity does not hold in basic color perception any more than it does in simple color statements. Such phenomena were counter examples to Wittgenstein's early insistence on the independence of basic facts and elementary statements that drove him to rethink his entire philosophical approach.

Recently, neurologist and philosopher Junichi Murata has argued there is "no definite answer" to the question "what is color?" (Murata, 2007)[3] He explains that colors and color vision do not have a single essential nature like an atomic formula; rather, they are multidimensional. On his account, while

[3] All Junichi Murata citations herein are from the conclusion of "The Multidimensionality of Colors" (2007). In Murata, J. *Perception, Technology, and Life Worlds. UTCP 1* Tokyo: Center for Philosophy The University of Tokyo, 2007: https://www.cuhk.edu.hk/rih/phs/events/200405_PEACE/papers/JunichiMURATA.pdf.

the answers given to the question "What is color?" to date have not been "straightforwardly false", they have been "false in attempting to reduce various characters to a single essence". For guidance in understanding multidimensional concepts, Murata appeals to the later Wittgenstein's insight that some concepts display not strict unity or identity but family resemblances, commenting:

> Our understanding of such concepts should not be based on the strict identity of concepts but on family resemblances among various types. If we relate the multidimensional character to this answer, it will give us an interesting view of the resemblances.

Murata continues,

> If we take the multidimensionality of concepts into account, we cannot presuppose that the usual conception of the resemblance relation between colors is self-evident. As indicated, orange (luminous mode) is not always more similar to red (surface mode) than to blue (luminous mode). In a similar vein, the trichromatic color vision of human beings is not necessarily more similar to the trichromatic color vision of bees than to the dichachromatic or even monochromatic color vision of human beings, if we consider various factors (for example, affective factors), which are not directly related to hue discrimination but nevertheless must be considered important for color vision.

He concludes:

> Color vision is a visual recognition, which uses a wavelength difference of light to pick up information of various properties of the environment in order to live in it. As long as the ways in which to live in an environment are various, we must take the variety of properties into consideration as a candidate for colors and the many types of visual recognition as a candidate for color comparative and ecological studies and also in various examples of our experiences described in various phenomenological investigations. Wittgenstein left the following statement in his last manuscript. "The logic of the concept of color is just as much more complicated as it might seem (3-106)" (Wittgenstein, 1977, 29).

Although this statement sounds simple, it must be taken seriously, as *the complexity and multidimensionality of colors and color visions reflect the complexity and multidimensionality of the reality of our life world in which we live with other species*" (Italics added).

As more ramifications and implications of the Anthropocene come clear, we will better understand the inherent multidimensionality of all phenomena, things, and events largely due to their intricate interwovenness viewed under varieties of perspectives. It is heartbreaking to think that just as we are beginning to appreciate this deep richness of phenomena, human as well as natural, we face a looming climatic breakdown of nature as well as the erosion of local languages and cultures.

The chapters in this volume present a variety of perspectives from a swath of disciplines that enrich our understanding and bring the onslaughts of the Anthropocene into bold relief. Two chapters demonstrate how cultural considerations can enrich our understanding scientific phenomena. In the chapter *Bio-deconstructing Bioremediation: Tailings, Oil-eating Bacteria, and Microbial Agency*, Bradshaw examines the limitations of blinkered human agency in responding to pervasive environmental degradation. Focusing on the Albertan oil-sands, Bradshaw deconstructs the biotech practice—modelled on the linear causal approach of chemical engineering--of adapting "the metabolism of microbial strains to detoxify the waste products generated by this industry and which are stored in tailings ponds." The crux is that "certain microbial strains indigenous to the waste-ecologies which thrive on the 'toxic' chemicals there, metabolizing and eating them, have driven a wave of research… into *isolating, engineering, and optimizing* these metabolic capacities" (italics added). Bradshaw questions industry's quest to "control" such processes, which strains of bacteria created spontaneously in adapting to their toxic conditions. Granting that such bacteria are "intelligent organisms with a fine-grained resolution of environmental conditions, whose complex and networked activity is ontologically irreducible to the demands of synthetic biology," could an ecological model be devised for grasping human-microbal relations in the linear, goal-oriented process of bioremediation?

And in the chapter *Becoming Aware of the Living Air*, Barniaudy addresses the contradiction that while humanity is broadly aware that gargantuan quantities of pollutants and greenhouse gases are constantly belched into the atmosphere, we remain blind to the *present* enveloping air that sustains us. How to prompt humanity to appreciate and maintain this living aery matrix, which is necessary for the existence of the biosphere and all forms of life?

Barniaudy presents scientific and indigenous narratives that embed "our body-mind into the living air in all its richness and depth." He then parlays the phenomenological method as a way to open our sensitive awareness of "the participatory nature of our sensory perception within the weather-world" (Austin, 2014)[4]. He concludes that such narratives and sensuous experiences could stir humanity's potential for forming a deep empathy for other living beings, buoyed by attentiveness to the atmosphere. Such narratives and experiences could open humanity to embrace and promote environmental education and care ethics[5]. Spawned by mindful awareness, such care ethics would reflect our sensitivity to the interdependence between self and other, inner and outer, and the human and nonhuman worlds.

Charlie Galibert's chapter presents a guidebook to stay-at-home containment tourism: *"Post-Covidum hominus tristum est" Happy and smart self-deconfinement sheet or "links to free oneself"*. Above, it was noted that the term "the Anthropocene" grows in salience and force, and particularly in a time of containment it breeds a plethora of narratives. Galibert recalls Plato's insight that humans, bestowed with imagination, are "beings of representation: of the interiorization of external reality, of the exteriorization of interior reality". Empowered by the imagination, humans draw on "all forms: concepts (science), notions (common sense), and works (art)" for cognition and expression. Since early 2020, the travails of Covid-19 have spurred Galibert to compile "a catalog of complex stories, more or less concerted or disconcerting, which is part of a possible new axis of reading of the imaginary universe". This catalog for breaking through containment forms a "*narrativium*: the story which constitutes the basis of the human relationship with the world in all its forms: cognitive, affective, oral, gestural, written, behavioral, reflective, active, creative - the *imaginary*". Galibert invites the reader to read this narrative catalog in the moment of worldwide containment, "between apocalypses and millenarisms, resignations, the risk of totalitarianism… [as] calls for a paradigm change or the refoundation of the World, between fake news and suggestions of a new spirituality".

Provocatively, Galibert asks what the history of literature portends if not "the history of the possibility of getting out of the worst confinements, whether external or internal, hated or hated, suffered or chosen, flee or

[4] See also Skof, Leonat Skof and Petri Berndtson, ed., 2018, *Atmospheres of Breathing*. Albany: SUNY Press.

[5] James Austin. 2014. *Zen-Brain Horizons: Toward a Living Zen*. Cambridge: MIT Press. Shows the neurology of dedicated Zen meditation leading to "allocentric" (versus egocentric) awareness and compassion.

desired"? Let us unveil its portents by opening hatches, entering portals "that will allow us to escape from confinement to the universes of freedom". He collects and catalogues those common readings that might unfold the,

> connected and interconnected monads to which the current situation of confinement / deconfinement / reconfinement is reduced to us,

to open portals and routes in the universal adventure of the narrativium of literature *in order to shed light on the narrativium of confinement*.

On this Anthropocene quest, even the casual tourist in containment can learn something new, experiences surprise and delight, and return home much changed after the trip. In the guidebook, precise speleological exercises, shortcuts, bridges, rest areas, are offered to the reader who thus becomes his own guide. Galibert's guidebook extends from the larger world (our planet itself, as well as its astronomical, mythological, civilizational, societal, literary representations) to literary universes that stretch from the largest to the smallest, from the great cosmogonies and imaginary universes to miniature worlds, passing like Alice through the relativization of the categories of the large and the small, of the realistic and strange".

In the chapter *Fire and Form: Indigenous Eco-Georgic Practices in "Borri is Fire Waru is Fire" by Lionel Fogarty*, Trevor Donovan speaks for an Eco-Georgic literature based on the agricultural practices of Australian First Nations, the use of fire as an agricultural tool in particular. He confronts preconceptions of the Georgic Landscape with the reality of the Australian outback environment. In this manner, he demonstrates how a person's phenomenological experience of the Georgic is influenced by the literary representation of the Georgic and *vice versa*, in order to show both how the use of fire as a tool in agriculture is conversant with the definition of the Eco-Georgic as well as how its representation in poetry contributes to an ecocritical approach to literature.

If Georgic literature describes modified rural landscapes and the labor required to maintain them, an Australian Georgic must, in order to institute an adequate relationship between language and reality, deconstruct preconceptions of what constitutes a farmed landscape. In executing such a deconstruction, Donovan explores the use of fire as a tool in Australian First Nations agriculture. Lionel Fogarty's poem "Borri is Fire Waru is Fire" (from *Eelahroo (Long Ago) Nyah (Looking) Möbö-Möbö (Future)*, 2014) depicts ancient indigenous agricultural practices, challenging our perceptions and preconceptions of what should constitute the Australian Georgic. To what

extent does Lionel Fogarty's poem contribute to a new *georgic*, one that might present an Australian Eco-Georgic? An affirmative answer will be premised on the Eco-Georgic-- for which "each local ecology is attended to". Donovan further demonstrates the way in which '"Borri is Fire Waru is Fire" challenges the colonial control of language and land, thereby producing an aesthetic response to, and rewriting of, a Western concept of the *georgic*. In effect, this poem is a defining example of an emergent Australian Eco-Georgic literature, one that expresses the place of fire in indigenous agriculture and identity.

Given that indigenous agricultural methods had been in use since time immemorial, long before colonial displacement and oppression, the didactic nature of Georgic poetry must be adapted to "the native land", to the "local ecology", if Eco-Georgic literature is to grow out of the Australian environment. An Australian Eco-Georgic literature would need to not only reflect the specifics of the local ecology but also "place the human and the non-human within a network of agency that leads to an awareness of responsibility within ecosystems". Moreover, in the Anthropocene era, acceptance of "indigenous sovereignties" to promote "ways of being in sacred, ethical, and reciprocal relationships with 'nature'" is necessary. At the same time, any proffered Eco-Georgic literature must be adequate to the reality it represents. That is, there must be a correspondence between the object of perception and its literary representation in an Australian Eco-Georgic landscape. Fogarty observes that while the analogy between the plough and verse is a venerable mainstay in poetry, the relationship between the agricultural use of fire and its representation in poetry has yet to be fully explored and exploited. In closing, he reminds us, "Don't fire out the fire made a Thousand years ago". Fire — past, present, and future — illuminate the emergent Australian Eco-Georgic.

In the chapter *Italian Writers and the Anthropocene*, Chantal Colomb spotlights three Italian writers who critique human behavior towards animals and our planet through stories and novels. In particular, they reveal the dangers posed our Christian-Cartesian desire to make "ourselves the possessors and lords of nature." Decades ago, philosophers Peter Singer and Jacques Derrida already began to encourage their students and readers to adopt a caring and respectful regard for non-human animals. More recently, David Abram argues that humanity should "perceive the living in all its sensitivity and free from any utilitarian aim". But, does the Anthropocene portend that humanity will completely despoil nature's bounty?

Humanity's creeping dominance over our planet is beginning to threaten life everywhere through wholesale environmental destruction, biodiversity

reduction, and despoiling the biosphere. In the science fiction novel *Sirene*, Laura Pugno depicts a planet that has become uninhabitable in just this way. In *L'ordine animale delle cose* (*The Animal Order of Things*), Antonio Prete narrates a fantastic journey into the animal realm, seeking to effect an empathetic shift in the reader to the animals' vantage point, to get behind their enigmatic gaze. The stories offer creatural hymns in an era when many animal habitats, worlds of beauty, pain, and wisdom are in dire peril. And, in *Il Peso della farfalla* (*The Weight of the Butterfly*), Erri De Luca tells the story of a conflict between the leader of a chamois herd and an old poacher. In the end, this tale intimates that the poacher's way (the way of modern society) is not the way to live in harmony with nature. How to remedy the harms caused by humanity for nearly two centuries?

These Italian writers are in revolt against modern humanity's destructive mode of living in the Anthropocene. While Pasolini entreats a return to a primal sacred, inseparable from nature, Laura Pugno evokes the cautionary apocalyptic vision of a planet rendered uninhabitable. Philosophers Merleau-Ponty, Giorgio Agamben, and David Abram invite us to imagine how we would feel if we were to live like wild animals, unprotected and on our own in nature. Like these writers, many artists also do not accept modern culture's separation between humanity and nature, between humanity and other species, plant and animal. Colomb sees hopeful signs: during the Covid-19 pandemic humanity is learning it can reduce its consumption of goods. The social distancing imposed by the pandemic reminds us of the untenability of living without the other and without the possibility of maintaining contact with nature. Registering the harms to nature wrought by humanity's abuse of natural resources, Colomb salutes those artists and writers who alert us to the dire situation but offer hope. Her positive message is: by cultivating care, wisdom, and art, humanity may nurture profound respect for the natural environment and the beings who live therein.

In the chapter Animals' *Optical Democracy in the fiction of Cormac McCarthy*, Lobo notes that deep changes in American cultural perceptions in the 1960s opened the way for ethology to change in ways that challenged ways of perceiving animals in the 1970s. At the same time, the rising awareness of environmental destruction spurred people to develop aesthetic representations of nature. In this context, "Animal Studies" started to change radically, opening new links between ethology and the humanities. Cormac McCarthy devotes considerable space to animals in his fiction. He sets up porous borders between humans and animals and lets his readers encounter random violence — to better appreciate the sensory world, the quest for survival, and the importance of movement — moving for the sake of moving.

McCarthy's works are testaments to how literature can offer aesthetic answers to science. The deep connection he renders between the physical environment and the written text reveals the severe limits of anthropocentrism in the humanities.

In closing, the author relates animals' "Optical Democracy" in McCarthy's fiction to the pandemic and the climate crisis, suggesting that movement will be a factor in future survival. In his writings, McCarthy presents people and creatures in motion to intimate the irrelevance and unreliability of fixed, static, past paradigms. Reductive science is no more a panacea than religion. Modern technology and human consumerism are unsustainable but no viable substitute is in the offing. Language alone cannot deliver lasting knowledge, for due to its autonomy it constantly escapes human control. Empathy, care, and aesthetics permeate McCarthy's texts, and the questions are more evident than the answers. For example, while the question how to survive is paramount, the answers are few and fleeting. McCarthy's texts aver that survival involves finding ways to make sense of things and keep hope that people can dwell together. Seeking is more important than finding. Moving, always moving is key. Destination does not matter. Life, human and natural, keeps moving just for the sake of moving; survival lies in this. Was human life most attuned to nature when it was nomadic and survival depended on hunting, gathering, and scavenging?

In the chapter *Extinction, atavism and inevitability: life after collapse: A study of The Eternal Adam by Jules Verne and of The Death of the Earth by J.-H. Rosny aîné*, Kevin Even investigates several problems associated with the Anthropocene era through the lens of two visionary science fiction novels of the nineteenth century. He first shows how the two authors portray the collapse of the world from the perspective of a single narrator to reflect on the destiny of humankind. Enthralled by Darwin's theory of evolution which changed everything in their day and age, the authors explain the collapse of the world in terms of evolution and regression. Moreover, both novels are pessimistic and share overlapping themes. Even connects the novels with canonical texts on ecology to demonstrate the contemporary relevance of their depictions of their relations between humanity and nature, progress and science. Their questioning of incessant industrial growth a century and a half ago is poignant. Even observes that while humanity's sense of foreboding about pollution-driven climate change is nothing new, our anxiety and stress related to the collapse of the modern world have increased in step with the mounting sense of crisis and alarm which commenced with the threat of nuclear Armageddon over the past sixty years.

In the chapter *We are Not Alone in the World*, Gross asserts the proposition that "the coronavirus pandemic may have prepared us for a new ecological paradigm: we are confined on Earth with other living beings". This proposition begs the question how writers and artists are to narrate the stories of the other beings. In recent decades, scholars in the environmental humanities and social sciences have experimented with new modes of *paying attention to the world and intuiting its narratives*. They adapt practices of narration to sensitize us to the feelings and fate of other living beings, with whom — it turns out — we are inherently linked. In writing such narrations, they need to avoid being human projections or representations. They also need to reimagine the common causes that shape our common world. Could such narratives open knowledge about the inherent connections between humans and non-humans? To interrogate this question, Gross examines "the narrative practices offered by Vinciane Despret's work". She and other writers tell stories about the lives of animals and plants, serving as spokespersons for those with whom we live together but who cannot testify on their own. Gross avers that these narratives promise the possibility of multiplying our world by depicting the diverse existences of other beings in stories of dependence. They depict other ways of living on a damaged planet, hopefully to inspire us to regain a terrestrial footing.

In the context of the Anthropocene, the question becomes whether such narratives can compellingly capture "those links that support our existence, the network of beings with which we live and on which we depend." Gross considers that the links are what matter. Writers must present the fragile links in precarious narratives that detail our earthly inscriptions. Such links are important for remedying the ecological crisis as well as guiding the formation new ways to arrange society and bring us closer to other beings.

Gross further hopes such narratives may reanimate nature for readers. A problem he detects with naturalist guidebooks and scientific works is that they de-animate the world and do not mobilize us. How can we live caringly in a world that is disenchanted, a meaningless setting where only human stories unfold? He sees a serious lacuna in modern human life. Society's indifference to the devastation of the world and to the Sixth Extinction underscores it: we are anesthetized and numb. In the Anthropocene, humans are beginning to heed the cries of the world; the Earth is not silent. Indeed, other beings offer manifold suggestions for regenerating our profound interdependence. Humanity needs new arts of listening and speaking and new narratives to highlight the ethical possibilities of living among the living. Earthly beings

are not autonomous, but always connected – to parents, languages, places, ways of doing things, ancestors, progeny, other networks of the living.

In the chapter, *Young People's Geographies in the Times of Covid-19: System Threat as a Chance for System Change?,* Lydia Heilen, Andreas Eberth, and Christiane Meyer explore the question, Do young people, often regarded as drivers of the sustainability transformation, view the impact of the pandemic as a positive example of fast action and an opportunity, or do they regard this impact as a threat to their status quo? The context is twofold: the Covid-19 pandemic has shown both (1) the economic vulnerability of the entrenched capitalistic system and (2) the positive ecological consequences of rapid policy action. Previous studies have found that economic threats lead to feelings of losing control combined with a sense of differentiation between oneself and others.

For this study, Heilen, Eberth and Meyer interviewed 150 young people aged 15-24 by online questionnaire. Survey results indicated the young people see the global response to the Covid-19 crisis as an example of rapid, consistent action by politics and society. In that light, they demand that restrictions benefitting the climate during the Covid-19 crisis be maintained to mitigate the looming climate crisis. The authors conclude that it is helpful to show positive examples of successful communal efforts to overcome massive threats and uncertainties, for such examples motivate young people and give them a sense of collective efficacy.

A deeper question that drove the research is whether youth can accept that system change is necessary, that is, a shift from a capitalistic to an eco-focused sustainability system, with a post-growth orientation. The authors link this question to young people's views on the behavioral and political implications of the pandemic. The possibility that the youth see the global response to Covid-19 as a positive example of rapid and effective change could be transferred to climate action efforts warrants particular attention, as young people are a proven driving factor for sustainability transformation (UNESCO, 2020).

In the chapter, *All My Earthothers: Levinasian Tools for Deep Ecology*, Erika Natalia Molina Garcia excavates Emmanuel Levinas' moral philosophy and finds fertile ground in his "Janus-faced attitude" for ecological thinking. Attempts to extend Levinas' ethics to the nonhuman sphere to date have led to extreme positions of (1) unlimited responsibility for all alterities and (2) limiting unlimited responsibility to other humans. By drawing a distinction between Levinas' ethic of responsibility and that of vulnerability, Garcia

produces a model of sensibility as enjoyment / vulnerability that she deems able to support a deep ecology ethics. In particular, she stresses a key Levinasian notion that holds promise for non-anthropocentric or deep ecology. It is the notion of sensibility, the never forgetting that we all are exhaustion, enjoyment, need, hunger and vulnerability. She writes, "Vulnerability is both our blessing and our curse, both the source of our ethical existence -because we share it, because we care for the vulnerability of others- and the constant threat of our protective self-withdrawal".

In the chapter, *Countering Anthropos with Trans-Corporeal Assemblages in Rita Indiana's 'Tentacle'*, Sierra examines Rita Indiana's novel *La Mucama de* 2015; English trans. *Tentacle* 2018), the tale of an attempted intercession in events leading to ecological disaster in 2024. An appeal is made to the active agent of the Anthropocene, "Anthropos", to cease his world-destroying behavior. Fully autonomous and individualistic, "Anthropos" has an incessant, singular urge to satisfy personal desires. Sealed in subjectively, isolated from the environing world, "Anthropos", an epitome of human exceptionalism, fails to grasp that the life of every subject is bound up in the diversity of others. "Anthropos" emerges as a destructive force that views the powerless human and more-than-human entities as expendables that exist to embellish his privileged status. As foil to the narcissistic exceptionalism of "Anthropos", Indiana's world also features trans-corporeal assemblages. Interventions to the ecological apocalypse will depend on the collective actions of such assemblages. They are created by the dispersed consciousness of a prophesied savior, "Olokun," whose power comes from its ability to exist simultaneously in distinct moments of time. This "pluriversal" identity subsumes "Anthropos" narrower realm of linear temporality and hierarchical subjectivity. A successful avoidance of catastrophe that would decimate all sea life will depend on "Olokun's" choice: to keep his individualistic pleasures in the present or to sacrifice himself and his avatars, by altering the timeline to prevent himself from coming into existence. Despite "Olokun's" tragic struggle between self-preservation and the collective good, he engenders multi-temporal and intersubjective assemblages capable of altering the disembodied subjectivity that guides "Anthropos." The diverse assemblages that "Olokun" creates join forces to dynamically and productively converge with the many disenfranchised human and more-than-human inhabitants of the planet. The resulting constellation of actants fosters connections across temporal and spatial boundaries which induce a new, alternative ontology, one in which humanity is not exceptional but a participant in this vibrant world of diverse inhabitants.

"Olokun", prophetic savior of the sea, as the assemblage "Acilde / Giorgio/ Roque" largely fails in the mission. Sierra argues that the point of the novel is not to elevate any individual, even one dispersed in time and space, as savior of the world, but rather to foreground moments of trans-corporeal connection. Thus, at several junctures in the novel, the individuated nature of self-serving characters gets ruptured, opening a sensorial awareness of a vibrant material environment. The "Anthropos" vein that runs through humanity is countered by assemblages that upend impulses of human exceptionalism. Any individuated would-be hero must fail so that interconnected beings can deliver the vibrant, diverse world into existence. Accordingly, Indiana's novel entails an environmental ethic by undoing the binary structure isolating the humans from the more-than-human participants. Such undoing gives rise to an alternative to "Anthropos" with a polyphonic assemblages of actants that defy and displace any hierarchical spatial and temporal ontology. While a singular hero must fail, emergent diverse assemblages unveil a new ontology suitable for an environmental ethic that precludes human exceptionalism in favor of trans-corporeal connections.

In the chapter, *Idyll and Threat: Man-Nature Relationship in the History of Music, Art, and Literature*, Federico Volpe retraces the story of humanity-nature relationship as conceived and experienced in music, figurative arts, and literature across the centuries. This journey in time through was prompted by the author's meditation on the present, since the global impact of the Covid-19 pandemic impels us to reflect on humanity *vis-à-vis* nature. Volpe finds, however, that the humanity-nature nexus has been pondered throughout history. Humanity has always wondered about its manifold connection to nature. In literature and the arts, this question has given rise to innumerable works. The history of this relationship is punctuated with threat and idylls and provides a rich backdrop for reflecting on the current situation as well as tea leaves for reading the future.

Volpe emphasizes that a concern about the humanity-nature relationship does not emerge in times of pandemic, though being explored in great works of art for centuries. As history shows, humanity has always accepted that it is a part of nature, be it idyll or threat. The cycles of history remind us the dramatic situation of today, marked by the Covid-19 pandemic, that is, by "threat", is not a one-off event, but these cycles intimate that humanity and nature will resume their complicity and hopefully give rise to a new Arcadian idyll.

In the chapter, *Mapping the Anthropocene: The Harrisons' and 'The Deep Wealth of this Nation, Scotland'*, Inge Panneels reflects on *The Deep Wealth of this Nation, Scotland* (2018) exhibition by eco-art pioneers Helen Mayer and Newton Harrison, an example of mapping the Anthropocene. For the exhibition, the Harrisons use mapping to explore how a future Scotland could thrive — by drawing on scientific ecological knowledge to create surplus ecological resources. They embrace the aesthetic of cognitive mapping in conducting their environmental art. Panneels presents the Harrison's mapping as a model of Cultural Ecosystem Services (CES) in which mapping and hacking are deployed for collaborative art practice which, by homing in on the local, aim to highlight connectedness to global ecosystems and cast an "ecological eye" on the Anthropocene. Their work underscores that CES are underused, undervalued tools for policy-makers, well worth consideration in the new *ontopolitics* of the Anthropocene: for enmeshment and entanglement of culture and nature.

The Harrisons' "cognitive maps" work on an aesthetic level, as their large-scale wall maps affect and stir "a new state of mind" in the viewer by presenting the totality of climate change on the scale of a nation. Wide dissemination of these maps enables them to "do" their work in different contexts. The project bespeaks the skills of the artists as researchers, thinkers, and visionaries, informed by decades of practice.

The Deep Wealth aspires to be a political project that imagines the future, cognizant of the Anthropocene but still informed by Enlightenment values: reason and knowledge. They think that to embrace the Anthropocene without aspirations to knowledge or to reason would entail a lack of engagement with the political. These artworks invite us to action. Even if the full-scale ambitions of this project are not actionable, they still may be taken up in the corridors of power and implemented through terraforming on a nationwide scale. That would be its ultimate recognition as an efficacious artwork.

The Harrison's art practice ushers past landscapes into the present and forecasts the future -that given climate change, demand cultural and societal shifts. The exhibition departs from pessimistic, postmodern cognitive mappings, with a positive and futuristic ontological mapping on the state of *being in the world* for humanity. Paradoxically, this future will not be human-centric, but as the Harrisons propose, "one in which humans can once more find themselves at home".

In the chapter, *Covid-19 as a Wake-up Call. Potential for More Sustainable Attitudes and Behaviors in Poland*, Justyna Orłowska and Alicja Piekarz report that whereas Poland has hesitated to make significant efforts

to mitigate climate change, the Covid-19 pandemic has forced certain, at least temporary, changes in people's attitudes and the economy. The main obstacles on accepting change and adaptation are Poland's traditional, respected mining industry and new urban economic growth and consumerism. Orlowska's team surveyed individuals from the Silesian region of Poland about several common behaviors with heavy carbon footprints, e.g., daily transport, travel, consumption, and food waste, and found that the respondents were increasingly willing to make changes in some of these behaviors. The health threat and lockdown had led people to reflect on "what is really important" and reconnect with nature. If such attitudes could be encouraged and supported, they would lead to societal changes toward sustainable living.

The research team conducted quantitative and qualitative surveys to develop profiles of people's attitudes toward the Anthropocene. They conducted 150 in-depth interviews using online tools. Although their sample was not representative, it did reveal the respondents' diverse strategies and changing habits. Also, it registered different life conditions during the pandemic (e.g. of families with kids, pensioners, young adults, etc.).

Orlowska and Piekarz note the urgent need for a paradigm shift. Capitalism and the "gospel of unlimited growth" are pushing human activity to planetary limits in terms of ecosystems and natural resources. With only baby steps being taken internationally to push sustainable development and actions to prevent climate change, we are headed towards climate catastrophe. Without a wholesale change of attitudes and actions of governments, business, and civil society, progress will be impossible. But, how to trigger positive change? In 2020, a global health crisis hit the world. For the first time in many years, it affected everyone in the global South and North. Before, it was impossible to conceive what would make the world stop. But a public health crisis caused by a virulent virus crippled economies worldwide and delivered an existential threat to humanity.

As to the looming climate crisis, however, we have no time to lose. The traumatic experiences of Covid-19 should mark a turning point for stepping up the fight against climate change and radically redefining our development goals. Orlowska and Piekarz see preliminary but specific directions for continuing the pandemic triggered change in her survey results. First, the survey indicated there is potential to reduce transportation by the popularization of working remotely. Polish society had been hesitant to accept online work before; however, thanks to the pandemic experience,

people realize that remote work can be well-managed to the benefit of employees and employers, as well as the environment.

Another trend revealed by the survey was the need of society to redefine farming. The respondents indicated a bottom-up tendency for local communities to share food and the popularity of local farming. Orlowska and Piekarz suggest this trend should be supported by the authorities, such as by education to draw attention to food production. Already, at some preschools in Poland, children tend their own gardens and learn to live in harmony with and respect nature. Authorities could also favor the establishment of more food cooperatives and support small food businesses. Another trend revealed in the survey was the respondents' felt need for more green spaces and contact with nature. Orlowska and Piekarz opine that dialogue, cooperative effort, and subsidies could encourage local authorities to green the cities and towns. Fulfilling this need could result in a general change in the people's relationship with nature. The pandemic has shown that people can buy less and need less. Perhaps, the recovery from the health crisis and the need to rebuild the economy and our everyday lives will provide the chance to do it more sustainably. Orlowska and Piekarz conclude that, without a doubt, Covid-19 gifted us a lesson. The question is whether we do our homework and use this lesson wisely.

In the chapter, *On the Environmental Issue: When Poets Listen to Mother-Land,* Sébastien Aimé Nyafouna introduces Rita Mestokosho, Joséphine Bacon, Naomi Fontaine, and Natasha Kanapé Fontaine as promising voices of First Nations literature in the current international and Québec literary context. From Ekuanitshit where she was born in 1966, Mestokosho invites readers to survey her intimate geography unfolding from a painful past to a promising present. Her poetry collection *Comment je perçois la vie* (2010) is a perfect illustration. To understand this book, the reader must return, in imagination, to the dark beginning whence everything starts. From this beginning, Mestokosho's poems serve as a powerful instrument of liberation and restoration of identity, a restoration which may lead to a surpassing of the self, an opening to the "World" via the incantations of a poetic "Listening to the Mother-Land."

In Rita Mestokosho's poems, the relation of past to present consists of a search for lost identity. Suffering forced usurpation, exploitation and assimilation, the First Nations of Québec have suffered the loss of ancestral lands. As foreigners overrun their lands, their country and tongue, Innu-aimun, are lost and indiscernible in the Westernized space. This is why Indigenous writers treasure writing, especially poetry as a way to express and reclaim their humanness. For Mestokosho, it is imperative to write, i.e., to poetize

"who we are." Her poems body forth her native culture. Imbued with a tragic anthropocenic sense, they reveal the ailing "World." Through such poetry, it is possible to re-appropriate the "Mother-Land" and revive poetic contact with the local environment. To her, victimization is meaningless; like Camus, she prefers lucidity and confidence. She promotes dialogue, so her work might reach and stir more people. Mestokosho's poetry speaks to all who will heed her, no matter their place, their home, or their history; for her poetry reconnects humanity with her roots in the "Mother-Earth."

In the chapter, *Healing the Earth, Transforming the Mind: How the Covid-19 Pandemic Generates New Insights Through the Econarrative Writing Workshop*, Angela Biancofiore notes that that the Covid-19 pandemic has bequeathed humanity with a sense of loss: a loss of meaning, freedom, and in-person social interaction. At the same time, she sees potential in this because it may augur radical change in our vision of the world. She sets out to investigate how to initiate a process of transformation in our ways of perceiving our relationships with living ecosystems in the context of the current global health crisis. To this end, she examines narratives written by students at Paul Valéry University in Montpellier, France, as part of an international project of writing workshops focused on the pandemic and ecology, held January through March 2021.

Biancofiore suggests that living through an era of pandemic risk be viewed as a global rite of passage in which people are living with a sense of loss. In that sense, the pandemic has opened a new way of being in the world. In this context, college students display a new desire to write and to read their peers' writings. In their writings, the students describe moments of growth, days of self-conquest during confinement. Biancofiore reports that, in some cases, the psychic suffering caused by the loss of bearings and the absence of social interaction with friends has opened paths to realization: with no distractions, no normal life, many young people experienced "loss of presence": This prompted them to raise questions like, "What will I do? What will I choose? My projects don't match the present time anymore." Such moments of questioning and astonishment can lead to a crossroads: either we make the choice to act, pull ourselves together, take a fresh look at ourselves and others, or we sink into feeling ill at ease, indifferent, and increasingly depressed.

Biancofiore further reports that the student writings reveal a new clarity in their view of the ecological crisis and the Anthropocene era: they see that humanity has crossed critical boundaries in exploiting the planet, and we urgently need a new vision of life on Earth to change our behavior. Moreover, they now realize that *inner ecology* is linked to *outer ecology*: if we are not well, we tend to consume, shop compulsively, or pursue goals that are not in

harmony with our ecological Self, and this implies the destruction of other living beings.

The eco-narrative writing workshop encouraged students to share their suffering: one confided in an interview, "For me, this was a moment of freedom because we were allowed to express ourselves freely." Many students described the workshop itself as: a *space of freedom* where students realized they were not alone in their suffering from the current situation. The resonance generated by the workshop's collective blog encouraged everyone to be inspired by each other's blogs. By sharing each student's individual experiences of the pandemic, the workshop fostered empathy among them.

The students' willingness to express their personal feelings was due to the non-judgmental atmosphere set up during the sessions. One student emphasized the power of the imaginary in this difficult situation: "I have a dreamy nature, and this helped me so much during lockdown. I know now that what matters most is our mind, the way we see reality".

Intriguingly, the writing workshop provided occasions for the students *to work on the self*: they traveled together in search of truth, that is, existential, personal, and concrete truth, not the truth of abstract knowledge. In other words, they sought existential truth with direct impact on the self and others. In this light, Biancofiore postulates that if we are able to care of ourselves, we can care for others and the planet, and concludes it is vital today to realize the importance of inner transformation that would generate a change in our relations with other beings with other forms of intelligence. It is necessary to recognize the richness of the various forms of life on Earth -- on which our own survival depends.

The student writings from the eco-narrative workshop expressed existential fear, apprehension, and courage. Feeling at once vulnerable and robust, the students expressed their resilience and their will to enrich their understanding within a general society which pretends that things will return to pre-pandemic normalcy.

In the chapter, *An Evaluation of a Shambaa Community's Tradition of Adaptation to Local and Global Forces to Maintain Socio-economic and Ecological Sustainability, and Plague Resilience in Lushoto, Tanzania*, Raymond Ruhaak and Philemon Mtoi examine how the introduction of cash-crop farming causes dramatic landscape change, including forest fragmentation and greater risk factors for zoonotic disease epidemics. In the Lushoto District of Tanzania this cash-crop agriculture phenomenon has led to a plague epidemic while a more traditional nearby Shambaa community remained resilient during the plague outbreaks that swept through the district from the 1980s to 2004. Moreover, the forested community of Mlalo with a

mission nearby, has resumed and adapted traditional community and environmental practices, and shown diminished risk of zoonotic epidemic.

The highest incidents of the plague in the Lushoto district occurred in areas dependent upon cash-crops in the deforested regions. The cash-crop areas were intensely cultivated, leading to a decrease in biodiversity, diminishing competition and predators that control opportunistic rodent species. The most adaptable animals that could live in different ecological niches increased in population and burrow density, leading to increased infection rates. Additionally, over-cultivation reduced the soil fertility and undermined the climate stability needed for good harvests so farmers may pay off debts and to buy necessities. Many of the economic and environmental decisions in the cash-crop areas lacked local control, and were dependent on the federal government, international markets, and other international players. The information used for making decisions there was conveyed in language and knowledge from outside the local cultural geography of the Lushoto District, neglecting vital local knowledge and ecological considerations.

Unlike the cash-crop areas of Shume, the Mlalo area of the Shambaa people was only slightly affected by plague outbreak. Agriculture there was interwoven in the forest environment; soil fertility was maintained by traditional inter-cropping, controlled weeding, and forest plant-life decay, while different crops could thrive in different climatic circumstances. All of which conduced to greater biodiversity, diminished risk of large-scale pest and plant disease, greater food security, and reduced susceptibility to malnutrition among the community. The Mlalo Shambaa community was the oldest settlement in the region with the best know-how for farming sustainably, know-how that the recent migrant families lacked. The community did this by maintaining its native Shambaa language, which is tied to the local ecological system. This helped preserve the communal environmental knowledge and practices handed down from generation to generation. Furthermore, the Shambaa not only maintained their traditional knowledge, they adapted it to changing circumstances. They did not live in isolation, as the nearby Lutheran mission provided education that helped them predict, prepare, and deal with forces of globalization as well as offering networks that gave them opportunities for legal protection, political influence, and financial support.

The resilience of this Shambaa community and their narratives of how this came into being were consequences of their ability to adapt to the increased impact of human activity on the environment and the spread of disease during the Anthropocene. This ability has not required improved technology or wealth, but rather networking and learning from outside groups while

adapting their local knowledge and customs to the changes and potential changes outside forces bring. An important lesson is that too much isolation increases vulnerability to such pressures. The Mlalo community's relationship with the local mission serves as an example of the need for indigenous communities to have personal networks to tap into influential institutions that respect them and can advocate on their behalf. Moreover, these institutions could be an outlet for community members to gain understanding of the colonial/globalized knowledge and languages. Such knowledge of encroaching foreigners and the education they base their decisions on gives indigenous communities the ability to predict changes and know how to adapt to them. While communities that abandon the knowledge and customs of their cultural geography in facing these threats open themselves to the same ecological and zoonotic risks as the rest of the globalized world, those that maintain the connection to their local ecology, language, and knowledge while having networks of people familiar with threatening outside forces and their knowledge and language possess the means to be sufficiently adaptable and flexible to adjust to the looming threats.

Recent ecological crises and zoonotic epidemics/pandemics, such as Covid-19, have heightened humanity's awareness of the intimate but often invisible connections between environment and disease and deepened our understanding of the interdependent nature of solutions. The uncertainties of life in the Anthropocene drive humanity to tap into various ways — old and new — to be sustainable and resilient. The Mlalo provide a model for communities that are struggling to adapt to mounting environmental and socio-economic changes in order to increase their resistance to zoonotic disease and food insecurity.

Crucially important are a local community's connections with its own environment and with international institutions. Importantly, not all connections with international institutions are benign or beneficial; for example, some do not align with the interests or sustainability of the community. Effective community networks with international institutions are those in which the parties work together to influence and develop national and international law, with law-enforcement focused on environmental sustainability and protecting local cultural geographies and the local languages and knowledge that sustain them. These and other measures that strengthen each community's ties to its cultural geography could serve to foster these communities as centers of learning for the outside world, to help repair fraying human-environmental ties. Re-connection of communities to their local ecosystems globally to promote their sustainability and resilience

would diminish the risk factors for zoonotic epidemics, but they will also need increased protection from the depredation of global economic exploitation of their local ecosystems for this reconnection to be realized.

Taken together, the seventeen chapters comprising this volume offer a rich array of narratives of the Anthropocene era during the dark moment of global Covid-19 pandemic lockdown-- a lingering moment as mutant strains of the virus arise in turn. These narratives offer both perspectives on and accounts of the Anthropocene showing its promise as well as analyzing its ravages. Beneath the perspectives and accounts delivered through these narratives, this reader senses inklings of humanity's native but easily lost sensitivity to ecological settings and empathy for other beings. The narratives intone mindfulness (mindful breathing and attentiveness), phenomenological experience (Husserl's epoche and Merleau-Ponty's sensuous perception), sensitivity between inner ecology and outer ecology, and the like, as paths to kindling such sensitivity, the root of empathy and care ethics.

Sensitivity with such far-reaching emotional and ethical implications is generally hard won, a product of serious cultivation and rumination, although quiet, attentive hikers in the woods are sometimes stirred to a sort of enlightenment, an experience of wholeness and connectedness, when surprised by, say, an unexpected birdsong or fawn sighting. David Strong writes of gaining sensitivity to ecosystems and the signals and interactions among inhabitants by *spending time* and *being quiet and attentive* in the wilderness. Given that our mindsets have been so deeply programmed with reductive, quantitative scientific pictures of nature as a cache of resources to the exploited for human consumption, a person needs to devote considerable effort and spend *considerable time* in the wilderness to shed those human conceits and achieve a direct, sensitive appreciation of an ecosystem and its inhabitants — on their own terms[6]. Henry Bugbee (1915-1999) writes of having various experiences in boats with oars and in submarines beneath the sea of feeling and contending with unpredictable contrary motions of water—forces of nature. [7] For him, this bestowed him with a deep realization that the world was not made for us, for human consumption, but that it is we who must adjust our hearts and feelings to grasp it and work with it, at one with it. (One is reminded of the sentiments of the great surfers, their practiced attunement with the waves, ability to ride the crest, and respect for the power

[6] See David Strong, 1995, *Crazy Mountains: Learning from Wilderness to Weigh Technology.* Albany: SUNY Press.

[7] See Henry Bugbee, 1958, 1999, *The Inward Morning: A Philosophical Exploration in Journal Form.*Athens, GA: University of Georgia Press.

of the sea, nature.) More recently, Colin Wirth compares the nature sensitivity of the Zen philosopher-monk Dogen (1200-1253) with that of Gary Snyder, both of whom practiced Zen meditation and communed with nature[8]. Whereas Dogen's communion with nature was permeated by his Buddhist compassion for every being in its suffering, Snyder also spent time with a community of Indigenous Americans in the Pacific Northwest, assimilating and entering into their way of life at one with nature, feeling their profound gratitude for nature's bounty. Finally, again, James Austin demonstrates the neurology of the enlightened satori mindset, which follows realization of the emptiness of the self or no-self (*anatman*: yielding the allocentric self at one with all) and the vacuity of things and reality (*shunyata*: there are no fixed atomic things with self-natures; everything arises and falls in context; Indra's Net). The wisdom associated with satori is *ipso facto* compassionate, and thus empathetic and consistent with an ethics of caring for all beings. But, again, it is hard-won (Austin, 2014).

Sensitivity to ecosystems and other beings can be inculcated in educational programs at schools. Besides offering the natural sciences in a more holistic and ecological manner highlighting the intelligence and adaptability of other beings, schools can teach mindfulness breathing exercises and basic meditation. Moreover, they can set up school gardens for students to care for garden plots. And, they can arrange fields trips to nature preserves for the students to experience ecosystems and view wildlife in their natural habitats, as well as to farms to experience farm life, care for livestock, and the production of food. This sort of schooling beyond the school walls already is a main staple of education in Finland.

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[8] See Colin Wirth, 2017, *Mountains, Rivers, and the Great Earth: Reading Gary Snyder and Dogen in an Age of Ecological Crisis.* Albany: SUNY Press.

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"The Anthropocene has still the rank of a scientific hypothesis. Yet, it has already sedimented in our imagination with its stories of climate change and mass extinctions, global pandemics and energy crisis, technofossils and oceanic plastic, social justice and new minerals that are changing the face (and the bowels) of the planet. Investigating this imagination from multiple angles, Narratives in the Anthropocene Era, brilliantly edited by Charles Travis and Vittorio Valentino, is an indispensable tool for situating these stories into the conceptual horizon of the environmental humanities".

(Serenella Iovino, University of North Carolina at Chapel Hill)

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