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TOWARD CLIMATE JUSTICE

~ Eco-Strategies for Survival ~

Edited by

Thomas Dutoit, Aleksander Kopka & Katarzyna Szopa

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Thomas Dutoit*, Aleksander Kopka, Katarzyna Szopa*****

Foreword

Jacques Derrida begins his book *Specters of Marx* with an avowal "I would like to learn to live finally" (Derrida 1994). To live, however, is not something one learns from oneself or from life as such. Rather, it is a challenge for heterodidactics concerned with what happens between life and death in their most implicit complication, namely, with what carries life beyond present life toward a living on, or in other words, toward survival. From that point of view, one learns how to live only "from the other and at the edge of life" (ibidem, xvii). Ultimately, one has to learn how to *live (on) together* with the other *otherwise*, that is, more justly: "No *being-with* the other, no *socius* without this *with* that makes *being-with* in general more enigmatic than ever for us" (ibidem, xviii). The obligation of justice has to be therefore addressed to others "who are not present, nor presently living, either to us, in us, or outside us" (ibidem, xviii), which not only means that justice has to be thought in terms of inheritance and generations, but must also attest to an irreducible dissymmetry between the self and the other. Specifically, this obligation must be concerned with those who are not taken—not yet, no longer—into account: those unrecognized, unacknowledged, excluded, exploited, deprived of dignity, worth, or conditions to sustain their lives. Can therefore the question of justice be thought today apart from deterioration of the conditions of *living (on) together*, and thus, apart from climate injustice? And should not we have to pose the question about togetherness in view of climate crisis?

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Although climate crisis is ultimately regarded as a universal condition shared by all inhabitants of the Earth, vulnerability to its ramifications nevertheless varies across the globe and is shaped accordingly to the degree of (economic) privilege in its different forms: while some people can still enjoy access to shrinking natural resources and relatively clean environment, others witness, and very often become victims, of destruction and extinction of whole ecosystems. That is why in these turbulent times of pandemics, recurring droughts and fires, an out of control pollution of air and water, we cannot turn a blind eye to social, economic, transgenerational, interspecies and environmental exigencies of justice.

Furthermore, we are obliged not only to act in the spirit of solidarity and both communitarian and singular responsibility, but also to address the issue of deepening economic inequalities between peoples and communities, driven by the insane accelerationist logic of economic growth. This logic has to be interpreted as an attempt against life and health, or more precisely, against conditions of life's reproduction and survival. As Luce Irigaray argues, capitalism only imitates a true growth while actually carrying through a lethal extraction of natural resources, biodiversity, our bodies and minds (Irigaray 2020, 99). Its delusive assurance of constant "progress" is, as Maria Mies puts it, always violent and contradictory: "progress for some means retrogression for the other side; 'evolution' for some means 'devolution' for others; 'humanization' for some means 'de-humanization' for others; development of productive forces for some means underdevelopment and retrogression for others. The rise of some means the fail of others. Wealth for some means poverty for others" (Mies 2014, 76).

Striving for justice would therefore have to involve challenging and transforming those norms which have facilitated or remained numb to exploitation and destruction of all signs of life in their diversity. This, in turn, would demand to address the question of sustainability of life in general and the conditions of its survival: "The quite simple answer, which nevertheless we always neglect, is: we just need breathable air, drinkable water, sunlight and sun heat favorable to life, and an earth both fertile and on which it is possible to live" (Irigaray 2020, 95).

One of the most alarming symptoms of the capitalistic reality obsessed with the (im)possibility of its own demise is the collapse of our collective imagination. Silvia Federici identifies this conjuncture with the current state of global affairs and warns that "the emergence of a world in which our capacity to recognize the existence of a logic other than that of capitalist development is every day more in question" (Federici 2019, 188). Fanning

the flames of the looming catastrophe induces us to clutch to not so time-distant reality because we are unable to imagine a different, possibly better scenario for a more just world. The latter however would require fundamental transformations of social and economic conditions. As Federici points out, "[s]ocieties not prepared to scale down their use of industrial technology must face ecological catastrophes, competition for diminishing resources, and a growing sense of despair about the future of the earth and the meaning of our presence on it" (Federici 2019, 189). Thus, the paralysis of our collective imagination and language places before us both a threat and a challenge. On the one hand, it urges upon us a necessity of an opening for the emergence of new intellectual and political projects; on the other, it exposes our failure to think of climate crisis in terms of social injustice.

The following interventions attempt mainly to respond to the problem of the paralysis of our imagination. Through the exploration of diverse philosophical perspectives, but also of literature and poetry, the authors search for new ways of insight, comprehension, and expression, which would allow us to activate our collective imagination and release its potential and richness. The revival of these abilities requires us to develop a new language in order to confront our intellectual inertia, protest the existing state of affairs, and propose new actions and solutions.

References

1. Derrida Jacques (1994), *Specters of Marx: The State of the Debt, The Work of Mourning & the New International*, London: Routledge.
2. Federici Silvia (2019), *Re-enchanting the World: Feminism and the Politics of the Commons*, Oakland: PM Press.
3. Irigaray Luce (2020), "How Could We Rescue the World Today?", *Environmental Philosophy*, 1 (17), pp. 93-100.
4. Mies Maria (2014), *Patriarchy and Accumulation On A World Scale: Women in the International Division of Labour*, London: Zed Books.

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A Glimpse into a True Democracy. An Interview with Luce Irigaray

ALEKSANDER KOPKA: Let me begin with justice. In Book V of the *Nicomachean Ethics*, Aristotle defines justice as the practice of perfect virtue displayed toward others, namely, the kind of justice which assumes its ultimate character precisely through relations with others. From this point of view, care about one's growth would be strictly connected to care about others. Given the emphasis that you put on our relational identity, is there a place for the notion of justice in your philosophy? If so, how can we display justice toward all living beings, and the natural environment in general, during the climate crisis?

LUCE IRIGARAY: Your first question made me laugh. How could Aristotle practice justice towards the other(s) given what he thought and wrote about the woman? What does the word 'other' mean for him—as for many authors of edifying moralistic discourses—if the value of the difference of the other(s), beginning with their natural difference, is not acknowledged? In a logic based on identity, sameness, equality, what can be the status of an other? Does this word not amount to a mere definition in/by a logos which does not take difference into account, except as a more or less identical, same, equal in a scale of values according to which the different always represents that which is inferior with respect to the model or the ideal?

Yes, I worry about justice in my work. However, given the culture, which is ours, the first concern is to care about rights regarding every being without entrusting the practice of justice to people who are unable to be equal to such a task, what could be their ethical claims on this subject. For this very reason, I worked a lot towards the re-thinking of civil rights which can ensure justice. In reality, our current rights, which supposedly have been defined in a neutral and in a neuter way, have been established by masculine

subjects educated according to a certain logic. I thus began with trying to define sexuate rights (cf. *Je, Tu, Nous; Thinking the Difference, Sexes and Genealogies; I Love to You*) and I struggled politically, notably within the framework of the Italian Communist Party and that of the European Parliament, to get these rights recognized and applied. This has been a really difficult undertaking! Most of the people who are presumed to be democratic have not yet truly understood that democracy is first a question of rights that allow each citizen to legally oppose any power, including the power of the state.

Aleksander Kopka: You argue that the sustainability of life should not come down to a competitive and conflictual form of survival and that survival should be based on the cultivation of life. Could you explain why we have become so obsessed with this conflictual form of survival and how we could overcome it?

Luce Irigaray: I do not take a great interest in 'survival', which—in my opinion—partakes in a culture that is coming to an end. Does not speaking about 'survival' and even about the 'sustainability of life' amount to considering life to be something that we could have at hand, and that we could handle by ourselves? Obviously, it is then no longer truly a question of life. Life is autonomous with respect to us and it really exists when it develops by itself. We must above all respect it and contribute to its development without aiming at substituting our work for the growth of life itself. The first words of the chorus in the tragedy *Antigone* by Sophocles are enlightening regarding the problem that the intervention of man in the functioning of nature raises.

Aleksander Kopka: With the rise of the capitalist system we have been witnessing and experiencing an unprecedented acceleration of our detachment and isolation from the so-called natural world. Through its insatiable drive to accumulate and appropriate, capitalism has distorted and impaired our relations of subsistence and sustainability with the natural world. However, is not capitalism rather a symptom of a deeper problem or a flaw in our culture and approach toward the natural environment and other, human and non-human, living beings? How can we prevent the ongoing destruction of the natural world and our ties with it?

Luce Irigaray: It seems to me that the greatest mistake of capitalism lies in its way of producing without taking a sufficient account of the autonomous production of living beings. It favors the manufacturing of products to

the detriment of the fruits of a natural growth. Acting in this way, capitalism has increased man's claim to substitute the potential of nature itself with his own work - a claim that exists from the beginning of our culture, as it is told by the chorus in the tragedy *Antigone*. The acceleration of such a process is notably due to the transformation of the means of production, especially through the use of machines and products which speed up the rhythm of a natural growth. Machines can produce more quickly and efficiently than humans can. Little by little, they have surpassed the human potential and the value of human work. Human beings had to endeavor to become as efficient as machines, which removes them from their belonging to the natural world.

Perhaps a means of remedying this removal from nature is to consider the human to be a living being among other living beings which are mutually dependent on one another. We must thus respect our respective rhythms of development so that each of us should bring to the other(s) what corresponds to our respective potential. From this viewpoint, it is important to remember that living beings, unlike machines, are sexuate; and to take into consideration the fecundity of sexuation and sexuate difference, not only at the level of reproduction but at the level of production—for example, of energy, relations, or culture.

ALEKSANDER KOPKA: In the famous 11th thesis on Feuerbach, Marx writes that "philosophers have hitherto only interpreted the world in various ways, the point is to change it." While according to Gramsci, Marx did not renunciate philosophy as a whole, he repudiated a certain type of philosophy, namely, a theoretico-speculative philosophy. In contrast to this theoretico-speculative way of philosophizing, as a staunch critic of disembodied, possessive, and phallocentric philosophy, you encourage us to move toward a philosophy which is concerned, as you argue in *In the Beginning She Was*, with the "cultivation of our relational identity." At the same time, you raise concerns about the shortcomings of both idealism and materialism. What is, therefore, the path from theory to practice in your philosophy? And how can your philosophy of sexuate difference, to use Marx's words, change the world?

LUCE IRIGARAY: I am not sure Marx has really changed the world. Has he not been mainly a theoretician who interprets and criticizes the existing world? To succeed in changing the world, it is necessary to modify its background—for example, to question the subject-object logic which underlies the con-

struction of our world and the general objectalisation that results from it. It is necessary to interrogate why subjectivity is determined by its relation to/with objects—be they material or spiritual—more than by its natural and material belonging, and its relation to/with other subjects. It is also crucial to propose other modes of production and not a mere appropriation of the same means of production by the workers.

Concerning your question about the path from theory to practice in my philosophy, I would first like to say that thinking for me is a practice. Second, I would like to stress the fact that my thought is inspired by a living practice—beginning with the one of my own life—before my practice becomes inspired by my theory. Next, I also would like to say that my thinking aims at shaking the foundation—or *upokeimenon*—of our culture, in particular by substituting a subject-subject logic for a subject-object logic, and also a logic of difference for a logic of sameness, identity, similarity, and equality. This entails us taking on the negative which corresponds with the partiality of our natural belonging instead of using the negative as we please—as is the case in almost our whole philosophical tradition—or as a negative evaluation or connotation of the world and the way of behaving—which also presupposes that we have the negative at hand.

I would like to add that to consider our subjectivity to be sexuate, as I suggest, could be a path to overcome the master-slave relation which undermines the foundation of our theories and practices and is the cause of many sorts of unfairness. Those of the latter that Marx condemns relate above all to having and not to being. And, for example, besides the fact that he does not envision the transformation of our subjectivity which is needed to surmount many forms of unfairness, he has not thought of some unfairnesses that we are facing today, notably of the problem of pollution, which is too often negated to preserve the employment of the workers. I could also allude to other points—for example, the problem that the subjection of a human being to mechanization and technology raises.

Aleksander Kopka: In your writings like *To Be Born*, you seem to be profoundly occupied with the problem of human development and education. What kind of changes in the way we educate ourselves and others must be made to address the issues of the cultivation of life and preservation of the natural environment? And since this question remains inseparable from the problem of language, what kind of changes in our language, and by consequence, in the ecologic discourse (if there is only one) must be made? I am asking you about language because I believe that this issue is all the more

important since, as you write in "What the Vegetal World Says to Us," "[o]ur removal from the vegetal world has been accompanied by the loss of language that serves the accomplishment and sharing of life…"

LUCE IRIGARAY: As I write in *To Be Born,* a human being cannot develop as a tree, in continuity with a seed. First, because a human being is conceived by a man and a woman and is only a man or a woman. Furthermore, a human's growth cannot be merely natural, it also needs to resort to culture for its achievement. The problem is that the cultural models which are ours are not faithful to our nature. Thus, we become split into our body and our mind, our body and our spirit, without being able to develop as a comprehensive being. The most important point is to discover a culture that serves the blossoming of our natural being instead of contributing to its sterilization and repression. To consider us to be individuals in the neuter is an example of this way of acting.

Our culture operates above all through language. It is thus essential to discover a language that can express the living instead of merely naming them in order to seize them through representation(s). Some indications about a possible path on this subject are provided by the text of Heidegger regarding his dialogue with a Japanese master. This text makes it clear that not all cultures use language like ours. However, even in our culture, we can try to develop communication without contenting ourselves with information. This presupposes the favoring of syntactic structures which allow for a dialogue between subjects, and not only about objects. It is also crucial to privilege a discourse which expresses our living being without subjecting it to constructed 'essences'—for example, a discourse of the here and now taking into account the particularity of our own living being and the one of the other(s), including their sensitive and sensuous aspects.

ALEKSANDER KOPKA: In *Through Vegetal Being* and your other writings, you bring forth the profound function of air and breathing for both our spiritual and natural life. You also describe breathing as the first gesture of life. Could you tell us something more about sharing universal breathing as *the* essential condition of life? How should it be reflected in our laws, rights, and policies? Why has been breathing, as the first gesture of life, forgotten and how can we remind ourselves of it?

LUCE IRIGARAY: It is first a matter of allowing each to breathe in their own way. This requires securing breathable air for all. Caring about the quality of air ought to be the first concern of the persons in charge of a country.

To breathe is the condition for being and remaining living. Unfortunately, this is not acknowledged—by the way, not even by Marx.

It is important that each can be but also must assume breathing by themselves. If that is not the case, some survive thanks to the breathing of others, as it happens too often. We still lack laws, rights, and politics that consider this elemental truth. Citizens ought to have civil rights that they could put forward to the state or any other person in charge regarding the pollution of air, even accusing them of being an accomplice to murder. May what we endure with Covid 19 bring to the attention of those who govern the importance of breathing, a thing that people who became ill from air pollution did not succeed in doing! Perhaps it was possible to ignore that our first need is to breathe because we were thinking of our subjectivity as an abstract mechanism and not as an emanation from our living being. In reality, as I have already said, our culture does not correspond to the cultivation of life but instead to its repression.

Aleksander Kopka: I would like to end with a question about democracy. Why do you think democracy is the answer for peaceful coexistence between living beings and reconciliation with nature? Is democracy essentially about sharing, and therefore, about sharing the Earth? Furthermore, is democracy primarily an "earth democracy" and an "air democracy"? What kind of actions, in the wake of what evidently became a crisis of democracies around the world (especially regarding the Western political regimes which dub themselves democratic), have to be undertaken for us to move toward liberation, happiness, and the sustainability of life?

Luce Irigaray: I would like to know the context of my work, to which your words refer, to answer more precisely. Surely, we must hope that citizens want to coexist peacefully. Besides an appropriate education, civil law ought to ensure this coexistence through rights that help citizens control their instincts and drives. These rights ought to be respected first by those who claim to govern the country in the name of democracy but who do not hesitate to divide the citizens and propose programs which contribute to such division, as well as to the destruction of the natural world, in order to win an election. Democracy ought to be a manner of organizing and governing the city that allows citizens to live in peace and be happy—making them responsible for that as much as is possible. Respect and care for the Earth and the air must have a share in a democracy, both being essential to the life and the well-being of every citizen.

I think that it is crucial to make citizens aware of their needs, desires, and rights. It would be important that they receive an education on this subject. I appreciate a politician like Gramsci who considers popular education to be one of his main undertakings. In order to vote democratically, citizens need a political training, which most of them lack. Thus, they vote under the pressure of appealing slogans and media discourses, the content of which they do not truly understand. Then, they come into conflict with the decisions of candidates for whom they voted blindly too.

Political programs must take into consideration the well-being of citizens, that is, not only the acquisition or possession of goods but also the development of their being and the quality of life. Encouraging the citizens to content themselves with claims to have more, instead of being more, is not a really democratic strategy. Citizens, then, end in being no one and nothing. And what could mean a democracy without citizens? And yet, I wonder whether we have not reached such a paradoxical situation…

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Philippe Lynes*

World, Earth, Planet: A Time and Place for Nihilation in Ecocriticism

Abstract

This essay argues that opening a space and a time for the questions of ecological, terrestrial and cosmic nihilation in ecocriticism, one that takes seriously the end of the relational notion of 'world,' implores us to imagine or invent alternatives for a more just living-together. While speculative realism, and object-oriented ontology in particular, have made important advances in describing the withdrawal of the real from its relations, I suggest that deconstruction affords us a more radical way to think this withholding, particularly where it intersects with the literary. Drawing from two unpublished seminars of Derrida's, I contrast speculative realist criticism in supernatural horror, romanticism and science fiction with a notion of habituating oneself to nothing; not to the thing, but to its radical and irreversible annihilation.

Keywords

Deconstruction, Ecocriticism, Environmental Humanities, Object-Oriented Ontology, Speculative Realism

Since its inception, deconstruction has operated by reinscribing carno-phallogocentric distinctions into broader contexts, distinctions including human and animal, life and death, organism and environment, but also philosophy and literature. As early as his 1968 "Différance," Derrida suggested that the thought of nature de-naturing itself, or *physis in différance*, constituted the site for a reinterpretation of *mimēsis*, and therefore the literary, outside of its opposition to the natural. (Derrida 1982, 17) A few years later, in *Dissemination*'s "Hors livre," the solicitation of *physis* as *mimēsis* came to

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situate a certain literary *beyond* of philosophy, an *outside* of the metaphysical Book of Nature, but also a beyond *of literature itself*. How, then, does the epoch of environmental disaster and annihilation invite us to reimagine this "beyond of literature—*or nothing*?" (Derrida 1981a, 54n31) How do matters stand for ecocriticism where and when this nothingness abysmally diffracts and reorganizes all such boundaries at increasingly incomprehensible scales? In what sense can a fabulation, imaging or phantasm of one's own nihilation—whether ecological, terrestrial or cosmic, by definition involving the impossibility of one's being there—be taken in a *realist* sense? What does deconstruction offer in this respect, and how might opening a place and a time for nihilation in ecocriticism constitute a strategy for climate survival?

It may be useful to briefly situate a few of these questions in the broader context of contemporary scholarship in the new realism, a loosely-defined constellation of concerns ranging from new materialism, post-continental naturalism and speculative realism, although this essay will focus specifically on the latter.[1] In marked contrast to what one might deem an affirmative, triumphant phase in the work of ecological mourning characteristic of so many contemporary discourses in the environmental (post)humanities, speculative realism has regularly confronted and interrogated the questions of annihilation, extinction and nothingness at stake in our current climate crisis. This can be gleaned from Ray Brassier's work on *that which is not* (especially in what he calls 'the anatomy of negation' in his readings of Alain Badiou and François Laruelle—not to mention Blanchot and Levinas), Quentin Meillassoux's accounts of the earth and universe *without us* (especially in his readings of *le rien* and *le néant* in Hegel and Heidegger—not to mention Mallarmé), Iain Hamilton Grant's *unbedingtes*, unconditioned or unthinged *Naturphilosophie* (especially through Schelling's rereading of Plato's *Timaeus*, whose *khōra* was so important to Derrida), Graham Harman's dark, non-relational, withdrawn objects (again through readings of Heidegger) and finally, their reinterpretation by Timothy Morton in terms of a *meontic*, eco-

[1] The (new) materialist dimensions of deconstruction have provided the most fertile ground for inquiries into its realism. See Crockett 2018, especially the chapter "Derrida, Lacan and Object-Oriented Ontology: Philosophy of Religion at the End of the World," Goldgaber 2020 (forthcoming at the time of writing), Kirby 2017, especially the chapter "Matter out of Place: 'New Materialism' in Review," as well as my Lynes 2019b in the special issue of *Philosophy Today*, 'New Concepts for Materialism.' For a fascinating account of the intersections between deconstruction, ecology, materialism and nothingness, see Barad 2018. This present essay could be heard in the same key as Barad's suggestion that "perhaps we should let the emptiness speak for itself" (Barad 2012, 4).

logical nothingness.[2] This latter notion has certain deconstructive resonances; in contrast to an *oukontic* nothing, absolute not- or non-being, the meontic nothing lies closer to what Heidegger questions in "What is Metaphysics?," or as he explains it in his 1968 Le Thor seminar, 'un-being [*Un-Seiendes*].' The μὴ ὄν "is no οὐκ ὄν, no nothing, no non-being, for it is there. But it is not a being, insofar as it is *not that* which lets it be as this being that it is. The οὐκ ὄν must here be distinguished from the μὴ ὄν, negation distinguished from privation" (Heidegger 2003, 39). Notably for Morton, meontic nothingness also expresses the ambiguous translatability of Derrida's infamous claim that "*there is nothing outside of the text* [there is no outside-text; *il n'y a pas d'hors-texte*]" (Derrida 1974, 158)—the (present) absence of some *thing*:

> It is the very sliding between one translation and the other that reveals this strange, not-quite-present nothing… Nothing(ness) happens. Nothing(ness) can be text, there is no out-side-text, in other words, the text is unable to talk about at least one entity that it must include-exclude in order to be coherent. As a result, nothing in the text is fully present. The nothingness in (and as) the text, departs from full presence (Morton 2012, 230).

Speculative realism and its offshoot object-oriented ontology (OOO) in particular have gone a long way in redefining the scope of ecocriticism in the 21st Century. Morton's work is the best-known in this context, drawing in insights from his earlier research on romantic and deconstructive criticism. But Morton claims that OOO constitutes a *post-deconstructive* thinking, even as it builds on Derrida's critique of the metaphysics of presence. The general textuality of meontic nothingness implies that there is no 'away' at the end of the world; "either the beyond is itself nonexistent (as in deconstruction or nihilism), or it's some kind of real away from 'here'" (Morton 2013a, 115). At play here is something similar to the transgression of nihilism into a certain 'affirmation' in Nietzsche, Heidegger, Blanchot, and Derrida. But these transgressions would have allegedly failed to detect the multitude of objects underlying the nihilist void; "Heidegger's sonar only returns an anthropocentric beep from the universe of things. OOO is like a bathysphere that detaches from the Heideggerian U-Boat to plumb the depths at which the sparkling coral reef is found" (Morton 2013b, 48).

[2] The arguments in this essay are adapted from my current book project *Dearth: The Nature of the Thing*, which examines deconstruction's proximities and distances to speculative realism, and all the figures just mentioned, in much more detail.

In other words, "the OOO universe is to be discovered 'beneath' nihilism, as if the deep water in which modern thought swims turned out to be hiding a gigantic, sparkling coral reef of things" (Morton 2013b, 47). Below nihilism would lie the nothingness flowing out in front of the coral reef of objects, the spacetime emerging from the rift between the ecological, relational, phenomenal mesh and withdrawn, singular, noumenal, uncanny strange strangers. However, because of their excessive spatiotemporal distribution, 'hyperobjects' like global warming allow us to grasp this rift between the real and sensual in a gesture that makes any totalizing notion of 'world' obsolete. Environmentalism, Morton writes, ought now distance itself from its preoccupation with the end of the world in the interest of terrestrial coexistence; "the ultimate environmentalist argument would be to drop the concepts *Nature* and *world*, to cease identifying with them, to swear allegiance to coexistence with nonhumans without a world, without some nihilistic Noah's Ark" (Morton 2013a, 100). We ought awaken "from the dream that the world is about to end, because action on Earth (the real Earth) depends on it. The end of the world has already occurred" (Morton 2013a, 7).

I agree with Morton that ecocriticism, and the environmental humanities more broadly, must refamiliarize themselves with and learn to dwell within this nothingness in our era of global warming and mass extinction. Like Morton, I also believe that this involves interrupting and moving beyond an unquestioned appeal to a *relational* notion of 'world.' More than any other Speculative Realist approach, OOO's insight that realism ought to be grounded upon how objects *withdraw* from their relations has informed its practice as literary criticism. In this sense, it lies in a certain proximity to the *interruption* of relationality, the relation *without* relation so important to Blanchot, Derrida, and Levinas. But to say it right away, it is not the notion of withdrawal that concerns me about speculative realism; rather, *it is that this withdrawal is not thought radically enough*, especially where the environmental humanities must confront the problem of nihilation in a *non-philosophical*, that is—*non-metaphysical* and *non-ontological* sense. Deconstruction, by contrast, not only offers us a different *récit* of this nihilation than that proposed by OOO, but one that dovetails in surprising ways with the other figures associated with the new realism. Like OOO, however, the post-continental naturalism of Laruelle, Catherine Malabou, Jean-Luc Nancy, and Bernard Stiegler has been deemed *post-deconstructive* in the scholarly literature.[3] As Ian James writes, "these thinkers embrace, in very different ways,

[3] See James 2018 and 2019. For my comparative study of Derrida and Stiegler on similar questions, see Lynes 2019a. For my readings of Malabou and Nancy, see Lynes 2018a.

a dimension of material immanence or worldly existence which return them to (albeit entirely novel) kinds of realism or ontological discourse, modes of thinking that Derrida would no doubt have questioned or refused" (James 2018, 85). Referencing our co-edited collection *Eco-Deconstruction: Derrida and Environmental Philosophy* (Fritsch *et al* 2018), James nonetheless notes that "Derrida's thinking has been very much pursued along the lines outlined in relation to the four thinkers treated here" (James 2018, 85n1).

My own sense is that the questions of the beyond, the nothing, the outside or the void fit strangely with that of 'immanence' James sees at work in the naturalism of these four thinkers. As Derrida explains regarding his philosophical relationship to Deleuze, "I resist […] this 'immanentism,' unless that is I have misunderstood what he meant by 'immanence'" (Derrida 1999, 76). More precisely, this resistance to immanence is where I situate what I take to be what is most *real* in deconstruction; the nihilating nothingness of spacetime. In *Speculative Realism: Problems and Prospects*, Peter Gratton similarly argues that Derrida was not a 'correlationist,' but rather sought a realism of *time*; "after all, is not the fact of the future, denied as real *now* in so much writing on time, the ultimate non-correlation—not *experienced* and therefore not able to be correlated to a thinking subject, but nevertheless real?" (Gratton 2014, 10). For me, however, this non-correlational time concerns not only the future but an immemorial past that has never been present. Or rather, as Derrida puts it in *Advances*, the promise of the future issues from a time of incalculable expenditure, irreversible loss of energy, consummation and incineration, a gift without *givenness-to*, *not yet* "the time of Kant, nor that of Husserl, nor that of Heidegger. The temporalization of this promise would be even more 'ancient'" (Derrida 2017, 22-23). This prechronological time would be "just as foreign to the egological horizon that structures a phenomenology of time (Husserl) as it would to the order or existential horizon of temporal ecstasies (Heidegger)"[4] (Derrida 2017, 32).

This essay therefore proposes a realist account of spatiotemporal nihilation in deconstruction, sketching out where this account complicates speculative realist literary criticism in romanticism, supernatural horror and science fiction, and asking what these complications might offer ecocriticism today. This will involve rethinking the relations between *world and earth*—indeed *phenomenon and thing-in-itself* in relation to a more deeply withdrawn *Other thing*: the *planet* to whose nihilation the literary may allow us to habituate ourselves. We might thereby enlist how Laruelle, in *En Dernière*

[4] For my other readings of this text, see Lynes 2017 and 2018b.

humanité: La Nouvelle science écologique, bridges science and literary fiction towards environmentalist ends with his notion of 'eco-fiction': "a new ecological science parallel to science-fiction" (Laruelle 2015, 11). Like Morton, Laruelle deems the notion of 'world' a philosophical vestige, too bound up with terrestrial, one might say 'correlational' rootedness. But eco-fiction passes beyond Heidegger's distinction between being and beings—from an OOO standpoint the withdrawn real and sensual, relational appearance, tool and broken tool—to dissolve the antinomy between ecology and philosophy, indexing the earth upon the universe while bracketing the 'world' and 'life' of philosophy. Ecology thereby engages a certain 'collapsus' in the speculative mirroring of earth and world, ordering the ecological finitude of life on earth not upon the world but upon the open and infinite universe. Such is "the good measure of any possible ecology that would present itself, thus redressed, as future or eco-fiction" (Laruelle 2015, 28). To extend ecology from the earth to the universe while passing beyond the question of the world "is a manner of rendering it fictional, not speculative, but quite the contrary to de-specularize it or to undo it from its mirror, to unburden it from its labors of identification, to conquer a 'stunted [*surbaissée*]' universality of which philosophy would no longer be the paradigm and mistress" (Laruelle 2015, 29-30). Where ecology shatters the speculative mirroring of earth and world, strange stranger and mesh, being and beings is where I will attempt to locate the site of the 'beyond of literature—*or nothing*.'

I begin in §I with a brief description of correlationism and its role in SR literary criticism, contrasting this with a few of Derrida's unpublished reflections on nothingness and the thing, and explore where these discourses intersect with questions of world, earth, and planet. In §§II-III, I put these deconstructive insights into practice by engaging speculative realist criticism in romanticism and science fiction, particularly where literary narratives of apocalypse and death confront the finitude of language. Drawing from recent deconstructive work in ecological poetics, I conclude in §IV by showing how making a place and time for nihilation in ecocriticism, one that takes seriously the end or withdrawal of the world and its specular mirroring in the earth, implores us to imagine or invent alternatives for a more just living-together.

§I: Correlationism and the Other Thing

Whether discussing romanticism, science fiction or supernatural horror, speculative realism's account of the *withdrawal* of the real from its relations has paradoxically provoked strategies to illustrate more *realistic* responses

to our environmental catastrophe. In two recent monographs devoted to SR literary criticism, Evan Gottlieb's *Romantic Realities: Speculative Realism and British Romanticism* and Brian Willems' *Speculative Realism and Science Fiction*, both authors claim that SR challenges anthropocentrism by taking nonhuman things seriously, a task deemed all the more urgent when the material dimensions of our ecological catastrophe exceed the purview of language and human knowledge. As Willems puts it, "the ecological crisis of the Anthropocene is seen not only to force relatively dark objects into our awareness, but demands new strategies to ensure their continued visibility" (Willems 2017, 197). Science fiction in particular, he suggests, is especially well-positioned to strategically represent the unrepresentable dark objects at its heart, by way of disruptions of vision and losses of language, but also symbiosis; speculative realist ecocriticism "is a strategy for imagining different futures when all seems hopeless. However, the form this imagining takes is often through the most frightening destruction of everything humanity holds dear. As it should" (Willems 2017, 5).

I agree with SR criticism that our ecological catastrophe forces a dark, withdrawn *thing* into our awareness, but somewhat otherwise than Willems imagines it, in that this *thing* can only be thought in and as its very annihilation. This is akin to a question that preoccupies Derrida in the third year of his still-unpublished 1994-5 seminar *Le Témoignage* (*Testimony* or *Witnessing*), the fourth installment in the 10-year *Questions de responsabilité* series of seminars. Here, Derrida recalls the stakes of a seminar almost 20 years earlier entitled *La Chose* (*The Thing*), beginning in 1975 and given over three years, on the interplay between literature and 'the thing' in Maurice Blanchot's *récits*, Heidegger's work on art and dwelling, and Francis Ponge's object-poetics.[5] In *Le Témoignage*, Derrida repeatedly asks 'comment s'habituer à rien?,' which can mean something like 'how to get used to nothing' or more clumsily 'how to habituate oneself to nothing.' As he elaborates,

> Even if '*après moi le déluge*,' even if at my death is the end of the world, and it's the end of the world, the nothing [*le rien*], one still had to either deny this or bear witness in spite of nothingness [*le néant*] indeed bear witness to nothingness. My death there will have been, the end of what is world for me there will be, end of the earth and of humanity there will be, after the exhaustion of the sun, etc. and yet, against this or even because of this, from this absolute despair, I hope to still bear witness.

[5] See Marder 2009 for a different, extremely worthwhile reading of this seminar in relation to a 'post-deconstructive realism.'

> It's of this nothing, this being nothing, this thing of the nothing (*res*) that I would like to speak in asking "comment s'habituer à rien." What of this nothing, of this *res* of this thing or cause when one must habituate oneself not to it, to the thing, but to its radical annulment, to its annihilation without return?[6]

To me, this question of habituating oneself to the annihilation without return of the thing ought to figure at the heart of any realist account of extinction. But Derrida's work is often critiqued by SR as remaining confined, or inextricably *correlated*, to the linguistic or textual. Although Brassier, Grant, Harman, and Meillassoux—the four thinkers who held the first conference on Speculative Realism at Goldsmiths College in 2007—varied immensely in their commitments, influences and projects, all agreed on a certain rejection of '*correlationism*,' of which deconstruction would simply be one of the more recent examples. Correlationism is the idea that, especially since Kant, philosophy has only been concerned with the *correlation* between thinking and being, subject and object, the mind and the real, and unable to step outside of this correlation to the real itself. However, another definition of correlationism can be traced to the pre-Socratics, as Heidegger notes in *Identity and Difference*. "One of Parmenides' fragments reads: τὸ γὰρ αὐτὸ νοεῖν ἐστίν τε καὶ εἶναι. 'For the same perceiving (thinking) as well as being.' […] thinking and Being belong together in the Same and by virtue of this Same" (Heidegger 1969, 27). As he adds in *What is Called Thinking?*, this saying is the basic metaphysical position of all Western-European thinking, only matched in its greatness by Kant. "'The conditions of the *possibility of experience* in general are at the same time conditions of the *possibility of the objects of experience*' (*Critique of Pure Reason*, A 158, B 197). The 'at the same time' is Kant's interpretation of τὸ αὐτὸ, 'the same'" (Heidegger 1968, 243). Hegel then "transposes and transmutes Kant's principle into the Absolute, when he says that 'Being is Thinking' (Preface to *Phenomenology of Spirit*)" (Heidegger 1968, 243).

The correlationisms of contemporary continental philosophy are deemed direct descendants of these formulations, best exemplified in Heidegger's succinct claim that "for the Greeks, things appear. For Kant, things appear to me" (Heidegger 2003, 36). As is well known, Kant distinguishes between *phenomena* or things as they appear *for us*, and *noumena*, or *things in themselves*. All of his successors would have allegedly followed him in claiming,

[6] Jacques Derrida, *Questions de Responsabilité IV: Le Témoignage*, session 2, page 22. Box 118, folder 13. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January-May, 2018.

in their own ways, that we can never *know* the thing-in-itself outside of its givenness to us. But what if the very distinction between noumenon and phenomenon, the thing-in-itself and the thing-for-us, itself remained *intra-philosophical*? What if the thing-in-itself's withdrawal from its relations as SR understands it merely constituted a surface effect of a deeper, more radical withdrawal? Derrida presciently asks a similar question in *The Thing*, concerning not only the thing-in-itself, *la Chose même* (the same Thing) of the philosophical tradition, but the Other thing, *la chose Autre* underlying all philosophical discourses regarding the thing.

> Which does not mean that it is simply something other [*autre chose*] than the philosophical thing, beside or outside of it, but perhaps simply what philosophy thinks without thinking it, without being able or wanting to think it, as philosophy, but remains the Thing of the philosophical thing, the secret or crypt of the thing-in-itself [*la chose même*] of the philosopher.[7]

Above all, this is not to simply propose the Other thing as a new and improved transcendental signified. Derrida cautions against a similar appeal to 'matter' in *Positions*, where materiality risks being reinvested with the logocentric senses of "thing, reality, presence in general, sensible presence, for example, substantial plenitude, content, referent, etc." (Derrida 1981b, 64). The Other thing is likewise not an ultimate referent "according to the classical logic implied by the value of referent, […] an 'objective reality' absolutely 'anterior' to any work of the mark, the semantic content of a form of presence which guarantees the movement of the text from the outside" (Derrida 1981b, 65). However, avoiding a naïve relation to meaning, the referent, sense or the signified is not to suppress these elements altogether; "what we need is to determine *otherwise*, according to a differential system, the *effects* of ideality, of signification, of meaning and of reference" (Derrida 1981b, 66). Such *effects* of reference, I suggest, are where the *Other thing* overflowing the metaphysical opposition between the same Thing or the thing-in-itself and the thing-for-us can be engaged in relation to *literature*. As he explains in his 1978 seminar *Du Droit à la littérature*, Kantian critique could never have concerned itself with anything like literature; it concerned science, philosophy, metaphysics, and aesthetic judgement.[8] However, and for essential

[7] Jacques Derrida, *La Chose III*, session 1, page 3. Box 13, folder 11-17. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January-May, 2018.

[8] The seminar's title can mean both *From Law to Literature* and *Of the Right to Literature*. In *Parages*, Derrida claims that *La Chose*, *Du Droit à la littérature*, as well as the

reasons, one cannot simply extend transcendental questioning to the literary object. If the Kantian question regarding the conditions of science could rely on the latter's very exigencies and methods in its inquiry, the same assurance is refused to the literary question. If there even is such a thing as literature, "it would have a wholly singular, indeed unique relation to reality, fiction, truth, and especially to language, a relation that can in no case be that of science to reality, to fiction and language."[9]

As Harman recalls, the interrogation of correlationism by the four initial proponents of SR entailed a *weirder* model of reality than realists ever assumed possible. As such, "it is no accident that the only shared intellectual hero among the original members of the group was the horror and science fiction writer H.P. Lovecraft" (Harman 2012b, 184). For Harman, Lovecraft's writing ought to be elevated to the same stage as Hölderlin's poetry for continental philosophy. If Kant's philosophy posits a *gap* between appearances and things-in-themselves, Lovecraft's skill is to find new gaps in the world; "no other writer is so perplexed by the gap between objects and the power of language to describe them" (Harman 2012a, 3). No other writer, he adds, "gives us monsters and cities so difficult to describe that he can only hint at their anomalies. Not even Poe gives us such hesitant narrators, wavering so uncertainly as to whether their coming words can do justice to the unspeakable reality they confront" (Harman 2012a, 9-10). But this failure of language to describe the thing-in-itself is precisely why Harman reads Lovecraft as a realist writer. Realism does not mean that we are able to state correct propositions about the real world;

> no reality can be immediately translated into representations of any sort. Reality itself is weird because reality itself is incommensurable with any attempt to represent or measure it. Lovecraft is aware of this difficulty to an exemplary degree, and through his assistance we may be able to learn about how to say something without saying it… When it comes to grasping reality, illusion and innuendo are the best we can do (Harman 2012a, 51).

unpublished 2/3 of *Donner le temps* and a seminar on Maurice Blanchot's *Thomas l'obscur* ought to be read as a single work. "The project that I still have to postpone was at first to recast and order one day in a single work all the notes of these seminars" (Derrida 2011b, 5).

[9] Jacques Derrida, *Du Droit à la littérature*, session 1, page 5. Box 14, folder 13-18. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January-May, 2018.

The twinned questions of a loss of language and a loss of world in our ecological crisis indicate the precise point where literature and philosophy, criticism and ontology, become blurred. A realist account of extinction, I've suggested, necessitates an interrogation of the *Other thing* beyond this gap between appearance and a still-metaphysical appeal to 'reality,' the referent or the transcendental signified. Eugene Thacker's *In the Dust of this Planet* provides an immensely helpful topological schema to illustrate this through images of world, earth, and planet. The central motif of horror, he writes, is a limit to our understanding, a world that is increasingly unthinkable, "a world of planetary disasters, emerging pandemics, tectonic shifts, strange weather, oil-drenched seascapes, and the furtive, always-looming threat of extinction" (Thacker 2011, 1). What he calls *the horror of philosophy* is thus where philosophy reveals its own limitations, "moments in which thinking enigmatically confronts the horizon of its own possibility—the thought of the unthinkable that philosophy cannot pronounce but via a non-philosophical language" (Thacker 2011, 2). This non-philosophical language is where one might situate the literary *other thing* outside the thing-for-us and the thing-in-itself. Thacker accordingly distinguishes between the world in which we live, the *world-for-us* or simply the *World*, and the *world-in-itself* or the *Earth*. But there is something in the world-in-itself that constitutes a horizon for thought, beyond the bounds of intelligibility, haunted by the specters of extinction and climate change. Thacker refers to this as the *Planet*, the world *without* us exceeding the correlationist reversal through which the world-in-itself becomes thought as a world-for-us.

> The world-in-itself may co-exist with the world-for-us—indeed the human being is defined by its impressive capacity for not recognizing this distinction. By contrast the world-without-us cannot co-exist with the human world-for-us; the world-without-us is the subtraction of the human from the world. To say that the world-without-us is antagonistic to the human is to attempt to put things in human terms, in terms of the world-for-us. To say that the world-without-us is neutral with respect to the human, is to attempt to put things in terms of the world-in-itself. The world-without-us lies somewhere in between, in a nebulous zone that is at once impersonal and horrific (Thacker 2011, 5-6).

Supernatural horror and science fiction constitute artistic and literary attempts to confront the world-without-us, the planet that recedes behind *both* the subjective 'world' *and* the objective 'earth'; "what is important in the concept of the Planet is that it remains a negative concept, simply that which remains 'after' the human. The Planet can thus be described as impersonal and anonymous" (Thacker 2011, 7).

§II: Romanticism and Death in the Earth

Readers of French theory may catch this '*impersonal and anonymous*' as a nod to Blanchot, whose *récits*, critical and theoretical works lie at the heart of Derrida's notion of the Thing. Our first comparative reading of deconstructive and SR literary criticism will thus engage Blanchot alongside British Romanticism. The poet William Wordsworth's relevance for ecocriticism has been contested by many, notably by Timothy Clark, remarking the poet's tendency to refer to nature as a mere psychic resource for human purposes. Gottlieb seems to agree that Wordsworth is at best ambivalent regarding anthropocentrism and correlationism, less concerned with displacing a human-centered perspective than seeking 'what is really important to men.' However, Gottlieb reads his poetry as anticipating the OOO notion that no intentional or sensual profile of a thing will ever exhaust its full reality. "Lines Left Upon a Seat in a Yew-Tree" for example, begins by describing precisely such absences. The yew-tree is described as 'lonely,' 'far from all human dwelling,' "here/No sparkling rivulet spread the verdant herb;/ What if these barren boughs the bee not loves?" While deconstructive criticism allegedly emphasizes Wordsworth's failure to establish and maintain more harmonious relations between the human and nature, Gottlieb reads this as "evidence of the world's resistance to being fully exhausted by human (or other) agency" (Gottlieb 2016, 27). If the world's natural powers are indeed deemed significant primarily insofar as they feed the human mind, "the agency attributed here to things in themselves is remarkable, *they* approach and communicate with humans, whose primary role is to be open and receptive to them" (Gottlieb 2016, 27).

This tendency to correlate things to their meaningfulness for human beings increases in Wordsworth's later poems, where the human cannot but transform the earth-in-itself into a world-for-us. Wordsworth's so-called "Lucy Poems," however, are said to constitute an exception to this growing correlationism. Gottlieb reads these poems as commenting on the elusive nature of reality, displaying an anxiety towards whether language can adequately signify what it aims at. Wordsworth mourns the untimely passing of Lucy in "A Slumber Did My Spirit Seal," but in a sense that complicates the relations between subject and object, human and nature. "A slumber did my spirit seal; I had no human fears: She seemed a thing that could not feel / The touch of earthly years. / No motion has she now, no force; She neither hears nor sees; Rolled round in earth's diurnal course, / With rocks, and stones, and trees." On Gottlieb's interpretation, Lucy is not dead in the conventional human-centered sense, nor does she find herself in any afterlife;

she has simply ceased to be what she once was; "being in the grave extinguishes only one's human consciousness, not one's earthly existence" (Gottlieb 2016, 44). Lucy thereby endures in the nonhuman time of the earth's diurnal course, becoming purely object-like, indeed immortal. Gottlieb thus reads an equivalent of Morton's 'dark ecology' in Wordsworth's happy mourning for Lucy's death and subsequent rebirth in the earth; the poet "seems to celebrate Lucy's absorption or encryption into a planetary crust that simultaneously removes her from human access and delivers her to a more-than-human state of earthly suspension" (Gottlieb 2016, 45). This reflects what Morton calls the ultimately melancholic aspects of dark ecology, "undermin[ing] the naturalness of the stories we tell about how we are involved in nature. It preserves the dark, depressive quality of life in the shadow of ecological catastrophe" (Gottlieb 2016, 45).

However, Lucy's death and rebirth in the earth can also be read as approximating Blanchot's frequent illustrations of double death. As he puts it in *The Space of Literature*, death itself is split between

> one which circulates in the language of possibility, of liberty, which has for its furthest horizon the freedom to die and the capacity to take mortal risks—and there is its double, which is ungraspable. It is what I cannot grasp, what is not linked to *me* by any relation of any sort. It is that which never comes and toward which I do not direct myself (Blanchot 1982, 103).

On the one hand, Lucy has died the possible, personal death that is bound to life, the world *for us*, but not the death that is impossible to die, the impersonal, anonymous death without any relation or correlation to her or anything else, death *without us*, death in the planetary crust. One might therefore wonder if Wordsworth's own ambivalence regarding anthropocentrism doesn't perpetually risk converting Lucy's death in the earth, in the world *in itself*, into a death in the world *for us*. Furthermore, if OOO is itself structured by this eternal philosophical reversal of the thing-in-itself and the thing-for-us, attested to by Harman's claim that "there is no room for 'nothingness' in ontology" (Harman 2002, 11), we might also ask where the speculative realist reading of Romanticism leaves us regarding the limits of this philosophical reversal: the impersonal and horrific subtraction of the human—indeed the extinction of every organic correlation—from the planet.

We can illustrate such an account otherwise through the last two chapters of Blanchot's first novel *Thomas the Obscure*, on which Derrida gave a seminar alongside *The Thing* and *Of the Right to Literature*. Unlike Words-

worth's happy mourning for Lucy, Thomas, after the character Anne's death, undertakes an impossible confounding of his own death with death itself, but thereby finds himself excluded from being, allowing the void of annihilation to see him. As with Wordsworth, objects and things approach and interpellate him, but not in a sense in which one could comfortably speak of their agency.

> A world is within my grasp, I call it world, just as, dead, I would call the earth nothingness. I call it world also because there is no other possible world for me. I believe, as when one advances towards an object, that I bring it closer, but it is it that comprehends me. It is it that, invisible and outside of being, perceives me and holds me in being. It itself, unjustifiable chimera if I were not there, I discern it not in the vision I have of it, but in the vision and the knowledge it has of me. I am seen (Blanchot 2005, 311-312).

There is no other possible world for Thomas than this impersonal world-without-him; the earth would constitute the merely privative nothing of the world-in-itself in relation to his personal death, that of the world-for-him. Thomas is, however, caught sight of by something that escapes the specular mirror play of world and earth, the philosophical *for us* and the *for itself*. Being contemplated by the void allows Thomas to undertake a creation against the act of creation itself, to populate the void with singular entities incapable of reproduction, beings created out of absences; dragonflies *without* elytra, trees *without* fruit, flowers *without* flowers, birds *without* heads. For Derrida, all these beings' lacks are germs for the future-to-come; the toads *without* eyes "crawled on the ground seeking to open their eyes capable of sight for the future alone" (Blanchot 2005, 316). It is only in the absence of any wholly relational world that this romantic space of springtime resurrection, indeed de-extinction, can come about. Or rather, any strategic delay or deferral of planetary nihilation must somehow be thought in its relation *without* relation to the imaginary space of eco-fiction. As Blanchot defines this space in "Two Versions of the Imaginary,"

> When there is nothing, the image finds in this nothing its necessary condition, but there it disappears. The image needs the neutrality and the fading of the world; it wants everything to return to the indifferent deep where nothing is affirmed; it tends toward the intimacy of what still subsists in the void. This is its truth. But this truth exceeds it. What makes it possible is the limit where it ceases. Hence its critical aspect, the dramatic ambiguity it introduces and the brilliant lie for which it is reproached. It is surely a splendid power, Pascal says, which makes of eternity a nothing and of nothingness an eternity (Blanchot 1982, 253).

§III. Eco-Science-Fiction: Loss of Language, Loss of World

I mentioned above that SR literary theory examines an interplay between the withdrawal of a world in our age of environmental catastrophe and the consequent loss of a language that can adequately express this situation. For Brian Willems, speculative realism and science fiction come together in their attempts to imagine or invent alternative responses to this crisis, to ensure the continued visibility of the relatively dark objects forced upon our awareness by the Anthropocene disaster. Willems' key conceptual tool for explaining this disruption of sight is what he calls the 'Zug effect,' a trope in science fiction referring to nonsense within sense, impossibility within possibility, and whose purpose is to paradoxically represent non-correlationist worlds. The Zug effect gets its title from Damon Knight's 1964 novel *Beyond the Barrier*, where the character Naismith (himself a Zug) observes a series of 'dark objects' through a shimmering disk called the Barrier control network, seemingly opening onto another room; some of these dark objects are human, some machinic or robotic, as well as boxes, sarcophagi and vases. Willems cites the following passage to illustrate: "'Is this an actual entranceway into that room,' Naismith asked, fumbling for words, 'or a—a viewscreen?' Prell looked at him curiously, 'what's the difference?' Naismith realized, in confusion, that there was no difference, in the question as he had asked it: the two phrases… were almost identical" (in Willems 2017, 15). These dark objects for Willems are "paradoxically, signifiers of unknowability, and thus are a moment of unknowability within knowability" (Willems 2017, 16). The Zug effect thus engages two things: "a kind of vision that sees relatively dark objects and a way to imagine worlds in which such objects exist. The Zug effect is irrational, weird and unanticipated; but it is also reality because it draws its power from the withdrawn nature of objects, their dark side" (Willems 2017, 37). As such, science fiction corresponds to what Harman might call a dark object realism, doubled between withdrawal and connection, absence and presence, difference and similarity, separation and gathering.

This interplay of gathering and distancing is at the heart of Derrida's readings in *The Thing*, often articulating the viewpoints of Heidegger (who emphasizes appropriation, authenticity, gathering, jointure, the ownmost, the proper and proximity) and Blanchot (who emphasizes distance, expropriation, interruption and withdrawal). Taking the example of the bridge from Heidegger's "Being Dwelling Thinking," Derrida explains that

> Heidegger insists on the bridge as gathering, on the thing insofar as it grants, gathers, continues, turns according to the *ring*, while Blanchot insists on the interruption, the discontinuity, the discretion that the bridge signifies, the gap between the shores, the precarious fragility of the symbolic, the symbolic not only as precarious but insofar as it comes to dissimulate the Other, the Other as other shore, insofar as it gathers into the Same what remains Other (unknown, unpresentable, etc.).[10]

However, he adds in "Pas," Blanchot's thought expresses a certain annulment of this opposition between gathering and expropriation, availability and inaccessibility—not according to any *ring* or circle, but rather through the ex-appropriating figure of a non-dialectical *pas*, rendered as 'pace/nots' in English translation, both the step of transgression and its negation. As he cites "Two Versions of the Imaginary," "*Pas* is the Thing, *la Chose*. 'distancing is here at the heart of the thing'" (Derrida 2011b, 17). This distancing, itself withdrawing from the object-oriented reversal between the real world-in-itself and the sensual world-for-us, stands in an immensely complex relationship to language. As he explains in *The Thing*,

> The thing being nothing, nothing singular, determinable, nothing one could encounter as such, it has no place outside of language, outside effects of nomination since The Thing is like the name, nominality par excellence. It only takes place in language, it that has no name, no proper name: it is name and language but as it is not called [*elle ne s'appelle pas*] and has no name (capable of having them all), it is a sort of language without name and a sort of name without language. And yet if there is something that one generally places outside of language, as the referent itself, it is indeed the thing.
>
> One must thus reconsider everything on the basis of this situation where the outside of language par excellence appears immanent to language and constitutive of language and where, inversely, language is constituted in itself by this strange outside.[11]

This situation constitutes the horror of philosophy that cannot but be expressed in a non-philosophical language, one within which the Other thing, the planet, or the world-without-us strangely takes place as its nihilation. In light of our reflections on the simultaneous loss of a world and of a language capable of representing this loss, Willems' reading of Cormac McCarthy's post-apocalyptic novel *The Road* is instructive. Following an unspecified

[10] Jacques Derrida, *La Chose II*, session 3, page 7. Box 13, folder 11-17. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January-May, 2018.

[11] Jacques Derrida, *La Chose I*, session 2, page 5. Box 13, folder 1-3. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January-May, 2018.

catastrophe, a boy and his father follow a road south. The father was born before this cataclysm and the boy after, a difference manifested in their use of language. The father's language, which he is seemingly the last person alive to speak, references a world that has been lost, a world it still tries in vain to make live-on. It utilizes specific technical vocabularies to signify the natural and artificial things they come across in terms of their use-value, not unlike Heidegger's notion of world as referential contexture, or how the objectification of words through language contributes to the calculating enframing of nature in view of its availability for the standing reserve. These objects, however, are now no longer known; the boy's language thereby references the loss of this world, the end of this usefulness, a certain habituation to nothing as the thing's radical annihilation; "the ponderous counterspectacle of things ceasing to be," as Willems cites McCarthy (Willems 2017, 43). If the father's language remains one of light and speech, the white mythology of the metaphysics of presence, the boy's is one of darkness and silence, one that interprets things not in terms of their bygone use-value for a world that no longer exists, but at times in terms of their current value for survival. A boat, for example, is seen as a potential storage chest of food and supplies rather than a device for a Sunday sailing trip; "if nothing else the boy is not a part of the father's world of the names of things, however, it is more accurate to say that the boy is not a part of the world at all. The boy is not a part of the world because the world has ended" (Willems 2017, 41).

The world of *The Road* thereby attests to a more radical linguistic withdrawal that Willems helpfully maps onto Thacker's distinctions between the world-for-us, the world-in-itself and the world-without-us. The world-for-us is the world represented by the father's language, the world that has now disappeared; the boy converts objects resistant to his understanding, those of the world-in-itself, into those of a world-for-us by focusing on their survival value. But if the absence of a world paradoxically makes the world available to the boy, what takes place when even this availability can no longer be assured? In *The Road*, the world *without* us "is found in the notion of things that exist in excess of the human use of them. The end of the world is found in this excess" (Willems 2017, 43). In the loss of the use-filled language of the father, what is unknown in the thing—its shadowy, withdrawn nature—also *remains unknown* for the boy, "not-of-this-world, and thus more closely related to things in the world rather than the context that makes sense of those things" (Willems 2017, 2). What this analysis suggests is that simply remarking objects' excess over or falling away from their lin-

guistic, practical or technological use-value, their givenness to merely indirect metaphorization or paraphrasing (a common trope of object-oriented literary criticism), is not enough to express the thing's withdrawal from the philosophical categories of phenomenon and noumenon. Above all, this oscillation between the for-us and the in-itself is inadequate to illustrate the thing's ambiguous, uncanny relation to literary language, not only that of science fiction or supernatural horror, but to the institution of *mimesis as* nature's originary denaturing: the beyond of literature *or nothing*.

§IV. There is no Earth

Cary Wolfe has published what I take to be some of the most important work in the environmental posthumanities and animal studies, and his contribution to the *Eco-Deconstruction* collection, "Wallace Stevens' Birds, or, Derrida and Ecological Poetics" allows us to tie together many these threads in concluding.[12] For both Stevens and Derrida, he writes,

> 'the question is indeed that of the world,' as Derrida puts it, but for both, 'the world is gone' … in the sense that the very thing that makes the world available to us—the performative for Derrida, the *factum* of the poem for Stevens…—is also the very thing that makes the world 'as such' (in Heidegger's sense) *unavailable* to us (Wolfe 2018, 334).

To illustrate this unavailability, Wolfe cites Stevens' poem "Of Mere Being"; "The palm at the end of the mind, / Beyond the last thought, rises / In the bronze décor. // A gold-feathered bird / Sings in the palm, without human meaning, / Without human feeling, a foreign song." The bird here, like Shelley's skylark, Keats' nightingale and Poe's raven, "brings news from another, unearthly realm, infusing the poet's own song with something not exactly known but not exactly understood" (Wolfe 2018, 317). Stevens' reference to a foreign song without human meaning or feeling displays a logic that Derrida would call 'heterogeneous' to idealism. Especially in his later poetry, Stevens concerns himself with things as they are, with a real object, thing or fact attested to by the poem itself, and not the 'epistemological' correlations between thinking and being, mind and world, phenomenon and noumenon. If Stevens writes that 'The world must be measured by eye,' both the eye and the 'I' of the first person singular, the *Notes Toward a Supreme Fiction* refer

[12] This chapter was recently republished as "Never Again Would Birds' Song Be the Same" in Wolfe 2020, 84-118.

to an "eye without lid, mind without any dream— / These are of minstrels without any minstrelsy, / Of an earth in which the first leaf is the tale / Of leaves, in which the sparrow is a bird / Of stone, that never changes." For Wolfe, the eye needs a lid to introduce an impersonal spacing into the personal 'I,' one that

> holds the sound of one's own voice at a distance of a before and an after—'It was when I said'—that divides the 'I' (as in Emerson's 'transparent eye-ball'—'I am nothing, I see all') from itself. And it is in that space of 'between'—'between that disgust and this,' as Stevens puts it in 'The Man on the Dump'—that the 'mind' can have its 'dream,' that imagination can enact its 'purifying change' (Wolfe 2018, 320).

To recall the passage from Blanchot's *Thomas the Obscure*, Thomas' being seen by something escaping the representational play of earth and world, or the epistemological correlations of noumenon and phenomenon, allows him to make a world surge forth so that all species might live-on a little longer, a dream of change enacted from the 'between' of the imagination, 'a new knowledge of reality,' as Stevens puts it in "Not Ideas About the Thing but the Thing Itself." But this dream can only come about when the world has gone away, subtracting itself from the reciprocal interplay of its proximity and distance. The new knowledge of reality for Wolfe therefore arises from an exposure to the 'outside,' albeit an exposure that consists in 'blinking.' The contingency of the blink of the eye and the factual necessity of the outside allow for the event of the thing to come about in its singularity. But what interests me most in this situation is what Derrida in *The Thing* calls the singularity of *nothing*;

> the thing is a singularity, the singularity of nothing. It is something that is nothing. It is neither a concept, nor an essence, nor an existence. […] And yet there is The thing, what we call The thing, which we sometimes adorn with a capital letter and that fascinates, indeed terrorizes us as this singularity of nothing, at once familiar, very near and mysterious, anonymous, abysmal, maddening, obscene, seductive, *unheim-lich*.[13]

What does it mean for this interplay between necessity and contingency—incidentally so important to Meillassoux—to bring about the thing as the singularity of nothing, and how does this nothingness relate to the matters of earth and world? Wolfe draws from Derrida's *The Beast and*

[13] Jacques Derrida, *La Chose I*, session 2, page 4. Box 13, folder 1-3. Jacques Derrida papers. MS-C001. Special Collections and Archives, The UC Irvine Libraries, Irvine, California. Accessed January–May, 2018.

the Sovereign, echoing the drama of Heidegger and Blanchot in *The Thing* almost thirty years earlier (namely the former's bridge and the latter's infinitely distanced shores, the poet Paul Celan now playing as Blanchot's understudy with the line '*die Welt ist fort*'). On the one hand, humans and other animals incontestably share the same world; one could call this the objective earth, including the sea and sky, where all terrestrial beings dwell. On the other, they incontestably do not; one simply has to picture the world--for-us where the human has elevated itself onto a separate ontological and ethical plane over and above the rest of the living, the trillions of lives it actively or passively commits to extinction, not to mention the inorganic and abiotic environment whose degradation is inextricable from these losses. But more radically, Derrida claims that no living being in fact shares the same world; "the difference between one world and another will remain always *unbridgeable*. Between my world… and any other world there is first the space and time of an infinite difference, an interruption that is incommensurable with all attempts to make a passage, *a bridge... There is no world, there are only islands*" (Derrida 2011a, 30-31 emphasis modified). For Wolfe, this in fact constitutes the most radically ecological claim of Derrida's theses on world. "This fact—that 'the world is gone,' and not just for nonhuman life but also for humans, thus linking human and nonhuman life in their shared finitude (indeed, in the finitude of their finitude)—is precisely where ethics and ecological responsibility begin" (Wolfe 2018, 325). To push this even further, might this *unbridgeable* distancing of the island shores, when *there is no world*, bring one to also risk saying that *there is no earth*, that terrestrial coexistence must be envisioned and sought from a dearth of ground that is *nowhere*, if nowhere *else*?

Like the SR readings of romanticism and science fiction we encountered above, the withdrawal or end of the world implores us to imagine or invent alternatives for a more just living together. For a deconstructive ecocriticism, however, for which what is most real is the nothingness of spacetime, this withdrawal is that of a world-without-us whose extinction in a sense has always already happened. It is the withholding of a planet to whose nihilation—even after the exhaustion of the sun, as Derrida remarks—one is nonetheless implored to bear witness by habituating oneself to nothing. Here, Derrida's questions are not far removed from the conclusion of Brassier's *Nihil Unbound*. As he draws from the solar catastrophe described by Jean-François Lyotard in *Postmodern Fables* and *The Inhuman*, "'everything's dead already if this infinite reserve from which you now draw energy to defer answers, if in short thought as quest, dies out with the sun.' *Every-*

thing is dead already" (Brassier 2007, 223). These words should be heard all the more intensely when the threat of the sun's extinguishment pales in comparison to its one time preventable, yet now irreversible intensifying warming. Nonetheless, similar implications for the literary remain; for Lyotard, "fabulation calls for a kind of spatiotemporal and material emptiness, in which linguistic energy is not invested in the direct constraints of its exploitation as making, knowing and know-how" (Lyotard 1999, 94-95). This aneconomic investiture of energy in the imagination, beyond any production or use-value, instead allows us to open, or rather *leave* a place and time for nihilation in ecocriticism. From nowhere and nowhen, we encounter the imaginary as the supplement of the real, we solicit nature *as* the literary itself in view of a hopefully, but in no way necessarily, more survivable future. It may be from this impossible standpoint, at any rate, that an ecostrategy for living-on ought be negotiated, and that the path of ecocriticism toward climate justice might be reimagined.

Bibliography

1. Barad Karen (2012), *Was ist das Maß des Nichts? Unendlichkeit, Virtualität, Gerechtigkeit*, Ostfildern: Hatje Cantz.
2. Barad Karen (2018), "Troubling Time/s and Ecologies of Nothingness: Re-turning, Remembering and Facing the Incalculable", [in:] Fritsch *et al.* (eds.) (2018), pp. 206-248.
3. Blanchot Maurice (1982), *The Space of Literature*, trans. Ann Smock, Lincoln: University of Nebraska Press.
4. Blanchot Maurice (2005), *Thomas l'obscur: Première version (1941)*, Paris: Gallimard.
5. Brassier Ray (2007), *Nihil Unbound: Enlightenment and Extinction*, New York: Palgrave Macmillan.
6. Crockett Clayton (2018), *Derrida after the End of Writing: Political Theology and New Materialism*, New York: Fordham University Press.
7. Derrida Jacques (1974), *Of Grammatology*, trans. Gayatri Chakravorty Spivak, Baltimore: Johns Hopkins University Press.
8. Derrida Jacques (1981a), *Dissemination*, trans. Barbara Johnson, Chicago: University of Chicago Press.
9. Derrida Jacques (1981b), *Positions*, trans. Alan Bass, Chicago: University of Chicago Press.
10. Derrida Jacques (1982), *Margins of Philosophy*, trans. Alan Bass, Chicago: University of Chicago Press.
11. Derrida Jacques (1999), "Hospitality, Justice and Responsibility: A Dialogue with Jacques Derrida", [in:] Kearney and Dooley (eds.) (1999), pp. 65-83.
12. Derrida Jacques (2011a), *The Beast & The Sovereign Volume II*, trans. Geoffrey Bennington, Chicago: University of Chicago Press.

13. Derrida Jacques (2011b), *Parages*, ed. John P. Leavey, Stanford: Stanford University Press.
14. Derrida Jacques (2017), *Advances*, trans. Philippe Lynes, Minneapolis: University of Minnesota Press.
15. Fritsch Matthias *et al.* (eds.) (2018), *Eco-Deconstruction: Derrida and Environmental Philosophy*, New York: Fordham University Press.
16. Goldgaber Deborah (2020), *Speculative Grammatology: Deconstruction and New Materialism*, Edinburgh: Edinburgh University Press.
17. Gottlieb Evan (2016), *Romantic Realities: Speculative Realism and British Romanticism*, Edinburgh: Edinburgh University Press.
18. Gratton Peter (2014), *Speculative Realism: Problems and Prospects*, London: Bloomsbury.
19. Harman Graham (2002), *Tool-Being: Heidegger and the Metaphysics of Objects*, Chicago: Open Court.
20. Harman Graham (2012a), *Weird Realism: Lovecraft and Philosophy*, Winchester: Zero Books.
21. Harman Graham (2012b), "The Well-Wrought Broken Hammer: Object-Oriented Literary Criticism", *New Literary History*, 43, 2, pp. 183-203.
22. Heidegger Martin (1968) *What is Called Thinking?*, trans. J. Glenn Gray, New York: Harper & Row.
23. Heidegger Martin (1969), *Identity and Difference*, trans. Joan Stambaugh, New York: Harper & Row.
24. Heidegger Martin (2003), *Four Seminars*, trans. Andrew Mitchell and François Raffoul, Bloomington: Indiana University Press.
25. James Ian (2018), "*État Présent*: Post-Deconstructive Thought and Criticism", *French Studies*, 73, 1, pp. 84-102.
26. James Ian (2019), *The Technique of Thought: Nancy, Laruelle, Malabou and Stiegler after Naturalism*, Minneapolis: University of Minnesota Press.
27. Kearney Richard and Dooley Mark (eds.), *Questioning Ethics: Contemporary Debates in Philosophy*, London: Routledge.
28. Kirby Vicki (ed.) (2017), *What if Culture was Nature all Along?*, Edinburgh: Edinburgh University Press.
29. Laruelle François (2015), *En Derniere humanité: La Nouvelle science écologique*, Paris: Éditions du cerf.
30. Lynes Philippe (2017), "Auparadvances", [in:] Derrida (2017), pp. ix-xlvii.
31. Lynes Philippe (2018a), *Futures of Life Death on Earth: Derrida's General Ecology*, London: Rowman & Littlefield International.
32. Lynes Philippe (2018b), "The Posthuman Promise of the Earth", [in:] Fritsch *et al.* (eds.) (2018), pp. 101-120.
33. Lynes Philippe (2019a), "Biodeconstruction in the Neganthropocene", *CR: The New Centennial Review*, 19, 3, pp. 65-98.
34. Lynes Philippe (2019b), "The Imagination", *Philosophy Today*, 63, 4, pp. 941-955.
35. Lyotard Jean-François (1999), *Postmodern Fables*, trans. Georges Van Den Abbeele. Minneapolis: University of Minnesota Press.
36. Marder Michael (2009), *The Event of the Thing: Derrida's Post-Deconstructive Realism*, Toronto: University of Toronto Press.

37. Morton Timothy (2012), "Ecology without the Present", *The Oxford Literary Review*, 34, 2, pp. 229-238.
38. Morton Timothy (2013a), *Hyperobjects: Philosophy and Ecology at the End of the World*, Minneapolis: University of Minnesota Press.
39. Morton Timothy (2013b), *Realist Magic: Objects, Ontology, Causality*, Ann Arbor: Open Humanities Press.
40. Thacker Eugene (2011), *In the Dust of this Planet: Horror of Philosophy Vol. 1*, Winchester: Zero Books.
41. Willems Brian (2017), *Speculative Realism and Science Fiction*, Edinburgh: Edinburgh University Press.
42. Wolfe Cary (2018), "Wallace Stevens' Birds, or, Derrida and Ecological Poetics", [in:] Fritsch *et al.* (eds.) (2018), pp. 317-338.
43. Wolfe Cary (2020), *Ecological Poetics or, Wallace Stevens's Birds*, Chicago: University of Chicago Press.

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Sharing (Out) Democracy. On the Democratic Injunction for Climate Justice

Abstract

In my paper, I offer a synthesis of several approaches to the question of democracy and interpretations of the notion of sharing (out). By gathering the voices of such thinkers as Luce Irigaray, Jacques Derrida, and Jean-Luc Nancy, I argue that truly democratic policies must be thought in terms of sharing (out) and inspired by an insaturable justice. However, as I evidence, democracy cannot be considered apart from the question of climate crisis or our relations to non-human others and the natural environment. Eventually, I come to the conclusion that what those vibrant voices have in common is an emphasis on the question of responsibility for other living beings, affirmation of the singularity of every living being, and deep distrust of capitalist imperialism.

Keywords

Environment, Democracy, Breathing, Climate Justice, Language

> It is thus impossible to be simply "democratic" without asking what this means, for the sense of this term never stops posing difficulties, almost at every turn, indeed, every time we have recourse to it (Nancy 2010, 37).

In his book *The Experience of Freedom*, Jean-Luc Nancy calls attention to a certain lack in the philosophy of democracy. What is lacking is the thought of freedom which, contrary to freedom understood as sovereign power and autonomy of the subject over oneself, consists in introducing existence

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into the space of relations. As Nancy argues, freedom has to be therefore reinterpreted as the mode of both "the discrete and insistent existence of others in my existence, as originary for my existence" and "the other existence insisting in my identity and constituting (or deconstituting) it as *this* identity" (1993b, 69). According to this perspective, any singular being is from the outset thrown into the world of relations to the extent that the possibility of existing essentially coincides with the possibility of entering into relations. Consequently, freedom as interpreted by the Western Tradition, that is, as the faculty of absolute ontological independence, would amount to suffocation of existence from the lack of its exposure to others.

While this throwing of singularities into relation does not rely on any predetermined bond or their common being but rather happens in the place of withdrawal of any identity, it supposes an ontological openness through spatialization of every singular being by virtue of their constitutive sharing (out).[1] Thus, for Nancy, each existence cannot be brought into being otherwise than as sharing (out): "If being is sharing, *our* sharing, then 'to be' (to exist) is to share" (1993b, 72), or even, "to be abandoned in this sharing" (1990, 243). In sharing (out), therefore, one does not arrive as a preconstituted subject but rather through partition and participation inscribes oneself in the free space of movements and meetings. Freedom in the mode of sharing (out) as an effective de-centering of the ontological dominance of subjective autonomy is thus "singular/common before being in any way individual or collective" (Nancy 1993b, 74). Furthermore, the free space of sharing (out) is "opened, freed, by the very fact that it is constituted or instituted as space by the trajectories and outward aspects of singularities that are thrown into existence" (ibidem).

[1] Usually, in Nancy's texts, *partage* is translated as "sharing." However, Pascale-Anne Brault and Michael Naas propose to translate it as "sharing (out)." While I will not interfere with each translator's decision in the cited passages, in my comments, I will use the phrase "sharing (out)" in reference to Nancy's notion of *partage*.

As Todd May explains in *Reconsidering Difference*, sharing (out) clusters together two different meanings of partition and participation, dividing something and taking part in something undivided: "Taken together, sharing indicates a movement in which division and undivision are in an economic relation, an unstable mutual engendering in which neither shared nor participant retains its boundaries" (1997, 32-33). At the risk of making a mere rhetoric transformation of this quote, I would like to up the ante of this complication by bringing it to the following, presumably more radical conclusion: as the originary complication of these two movements, sharing (out), in its both foreignness and susceptibility to economic circumscription, must also involve affirmation of an economic, incalculable excess. Moreover, participation can only take place by means of division and differing which preclude any unity, i.e. a mere effect of sharing, from ontological completion.

By challenging the primacy of the metaphysics of the subject, this approach offers a complete, formal and practical, reorientation of our relations with the world and with other living beings. These relations are not something which furnishes our transcendental self-containment, but are constitutive of our living (on) (together) as sharing (out): "[W]e are brought into the world, each and every one of us, according to a dimension of 'in-common' that is in no way 'added onto' the dimension of 'being-self,' but that is rather co-originary and coextensive with it" (Nancy 1991, xxxvii).[2] However, what we as singularities have in common is otherness and not any determinable substance of our commonality. Hence, not only are we other for one another but also "infinitely other for the Subject of [our] fusion, which is engulfed in the sharing" (Nancy 1991, 25). We are together to the extent that togetherness is otherness. Moreover, we are not only exposed to one another but also to our and others' mortality and fortuitousness: "The otherness of existence consists in its nonpresence to itself, which comes from its birth and death. We are others—each one for the other and each for him/herself through birth and death, which expose our finitude" (Nancy 1993a, 155). We are therefore situated in a perspective which emphasizes our constitutive vulnerability and dependency on the referral to the other. In this situation, we cannot rely on some organic or symbiotic sentiment, which could define our life as living together but rather we are destined to engage in incommensurable, to use Nancy's vocabulary, responsibility, which, at the outset, consists in suspension of any ontological claim of predetermined relatedness (or, on the other hand, of transcendental non-accountability).

A similar suspicion of a fixed bond with the environment can be found in David Wood's eco-phenomenological critique of deep ecology. As he argues, every relatedness which we try to ground in a governing synthesis with a living environment has to be incessantly interrupted.

> If every living being does not merely have a relation to its outside, to what is other than itself, but is constantly managing that relationship economically (risking death for food, balancing individual advantage with collective prosperity, etc.), then however much it may be possible, for certain purposes, to treat such an environment collec-

[2] While I remain skeptical of Nancy's choice of words in describing being together as "the proper mode of being of existence as such" (What this properness would consist in? Can we even speak about properness under such conditions?), he immediately adds to this claim that being as such is, from the outset, put into play, risked and exposed (1993a, 155). Furthermore, in *The Experience of Freedom* Nancy explicitly says that "freedom can in no way take the form of property" (1993b, 70).

> tively, that treatment will be constantly open to disruption from the intransigence of its parts. Important as it is to see things in relation to one another, and tempting as it then is to see these spaces, fields, playgrounds of life, as wholes, that wholeness is dependent on the continuing coordination of parts that have, albeit residual, independent interests. At the same time these "things" we call environments, niches, and the like, are themselves subject to what we might, after Derrida, call the law of context. And context is an iterative and porous notion (Wood 2003, 226-227).

If every relation, as Woods suggests by adducing Jacques Derrida, is subjected to the law of iterability as "the nonpresent *remaining* of a differential mark" (Derrida 1984, 318), then our living together has to be devoid of "any center of absolute anchoring" (Derrida 1984, 320). From this point of view, politically speaking, one would be unable to "restore a transparency or immediacy of social relations" (Derrida 1984, 329), and by the same token, relations with the natural environment.

In a similar vein to Nancy, Derrida inscribes in his deliberations on the aporetic character of living together an ethico-political demand which pertains to the affirmation of "a fracturing openness in what one calls *un ensemble* [whole, gathering, ensemble]" involving the interruption of any ultimate or founding identity or totality: "The authority of the whole [*ensemble*] will always be the first threat for all 'living together.' And inversely, all 'living together' will be the first protestation or contestation, the first testimony against the whole [*ensemble*]" (Derrida 2013, 21). Derrida argues therefore that the first step of living together consists in rebellion and resistance against its totalization (2013, 35). It is our ethical obligation to contest completion and cohesion of togetherness in order, or at order's verge, to leave the future of our living together opened, and consequently, to leave our living together opened to the coming of those unfamiliar living others. For one of the inevitable threats of an enclosed living together is to deem those living others unworthy of living and therefore to leave them outside the *ensemble* of the *semblables*. If we restrict ourselves to those who are familiar, then even such a straightforward command as "you shall not kill" will install a hierarchy or preference of our commitment to preservation and sustainability of life. Once established, hierarchy could be used for justification of exploitation and destruction of different forms of life and disregard for their rights (both existing and to come).

Thus, as unthinkable as it should be to renounce such a command, the latter at the same time cannot seek a complete justification with regard to the hyperbolic demand of justice. Every decision must pass through this aporetic experience of undecidability which cannot find comfort in estab-

lished rules and definitions of what constitutes a life worthy of protection and care. Derrida argues that this milieu or ether of aporetic undecidability is precisely where "responsibility must breathe" (2007a, 31).

> To avow this aporia does not suffice, but it is the first condition of a responsible lucidity and a first gesture to open the best possible negotiation [...] all the way to the point where 'living together' commits life to all the living, to the gaze of all the living, to the gaze and even beyond the gaze, and even there where no sacrifice can leave my conscience at rest, as soon as one faults or assails the life of a living other, I mean of an animal, human or not (Derrida 2013, 38-39).

In *Rogues*, in his commentary on Nancy's dislodgment of freedom as mastery in favor of pre-subjective freedom as sharing (out), Derrida broadens further the scope of living together when discussing the aporia of the political and democracy, namely, the irresolvable complication of the calculable and incalculable. While calculable measure as the "technical measure of equality" provides access to the incommensurability of singularity, the following question still stands: where does "this measure of the immeasurable, this democratic equality" (Derrida 2005b, 53) of those who are committed to living together end? Do nation-state or international laws leave a satisfactory answer to the questions of "what counts" and "how to count"? Or, as Derrida wonders, should we extend this democratic measure of equality

> [...] to the whole world of singularities, to the whole world of humans assumed to be like me, my compeers [*mes semblables*]—or else even further, to all nonhuman living beings, or again, even beyond that, to all the nonliving to their memory, spectral or otherwise, to their to-come or to their indifference with regard to what we think we can identify, in an always precipitous, dogmatic, and obscure way, as the life or the living present of living [*la vivance*] in general? (2005b, 53)

Now, since the aporia of measurability of and accountability for the immeasurable is strictly tied to the reformulation or deconstruction of the concept of freedom which no longer, at least for Nancy (and for Derrida, who shares with Nancy "the same deconstructive questioning of the political ontology of freedom" [Derrida 2005b, 43]), applies for the countable and measurable subject as the faculty of free will and the power to act assumed by "the dominant discourse about democracy" (Derrida 2005b, 44), then

> [...] freedom is extended to everything that appears in the open. It is extended to the event of everything in the world—and first of all in the "there is" [*le "il y a"*] of the world—that comes to presence, including whatever comes in the free form of

> nonhuman living being and of the "thing" in general, whether living or not. […] The whole question of "democracy" might be configured around this transcendental force: how far is democracy to be extended, the people of democracy, and the "each 'one'" of democracy? To the dead, to animals, to trees and rocks? (Derrida 2005b, 54)

The extension of freedom would therefore bring an obligation to respond to the call which is coming from the outside, and as such, it would be integral to the task of democracy as thoughtful transcending beyond what is acknowledged. Consequently, if politics wants to stay true to the injunction of justice, the reinvention of democracy has to be inspired by what does not belong to the scope of the calculable, the conditional, and the possible. And even though the unconditionality "that the opening to the other brings" is heterogeneous to politics as the domain of what is possible, the former remains inextricable from the latter. In fact, it is the aporetic (and thus, hyperpolitical or hyperethical) imperative to take the unconditional each and every time into account, even if it "remains unrealizable" (Nancy 2010, 16) and ultimately impossible to be determined. Furthermore, since this opening to the other is connected to an impairment of the authority of the subject, "a certain unconditional renunciation of sovereignty [as, for example, man's undisputed reign over "nature" or non-human living beings—AK] is required a priori" (Derrida 2005b, xiv).

Because of the paradox binding the necessity of political activity (and activism), which requires some kind of sovereign power in use, *and* the unconditional opening to the other, which requires renunciation of the sovereign power, the tension between conditional law and unconditional justice remains unsolvable and political activity can never reach, or even think, the limit of its satisfaction and saturation. Accordingly, our response to the other takes place through the complication of two contradictory movements. On the one hand, we should be committed to render a fair and reasonable account of what or who appears in the open. On the other, we should attest to the infinite alterity of the singular other, irreducibly distanced from us by "the space and the time of an infinite difference, an interruption that is incommensurable with all attempts to make a passage, a bridge, an isthmus […]" (Derrida 2011, 9).

Derrida's emphasis on sharing (out) [*partage*] as "coinscription in space, or with a view to space" (Derrida, Stiegler 2007, 66) of singularities, conditioned by the play of *différance*, and Nancy's stress on "the first thrust of freedom," which attests to "the common absence of measure of an incommensurable" (Nancy 1993b, 75), expose what in *The Politics of Friendship* Derrida calls "the heteronomic and dissymmetrical curving of a law of orig-

inary sociability" (2005c, 231). Such a shift in political thinking imposes on us the previously mentioned (aporetic) understanding of responsibility as "responsibility that assigns freedom to us without leaving it with us, as it were—we see it coming from the other" (Derrida 2005c, 231-232). What that means is that responsibility, just like freedom, comes neither from the place of autonomy nor concentration of sovereign power and execution of authority over others, but from the (non-)place of the other. According to Derrida, this infinite heterogeneity and dissymmetrical curving ought to inspire any attempt at social bonding, especially when we talk of unfettered democracy:

> Such a dissymmetry and infinite alterity would [...] indeed be incompatible with all sociopolitical hierarchy as such. It would therefore be a matter of thinking an alterity without hierarchical difference at the root of democracy [...] this democracy would free a certain interpretation of equality by removing it from the phallogocentric schema of fraternity (PF 232).[3]

Fair Democracy

For Derrida, democracy, in order to defy hierarchical differences and not to yield to economic calculation, has to be thought in terms of an infinite promise: "the idea, of democracy to come, [...] is the opening of this gap between an infinite promise [...] and the determined, necessary, but also necessarily inadequate forms of what has to be measured against this promise" (Derrida 2006, 81). Therefore, in the pursuit of the democratic promise devoid of any anticipation, we are thrown into the opening in which any expectation of return (as a closure of the economic circle) is relinquished and any right (like that to property) is ultimately renounced (Derrida 2006, 82).

Analogically, for Nancy, this coinscription in the politically undeterminable and insaturable opening consists in sharing (out) of the incalculable. Obviously, sharing (out) does not come down to the order of exchangeable goods and measurable value, but rather the share of what is without value, which exceeds any calculation and politics (Nancy 2010, 17). While Nancy categorically states that "[t]here is here a share of the incalculable that is, no doubt, the share most resistant to appropriation by a culture of general calculation—the one named 'capital'" (Nancy 2010, 16)—the share which

[3] With regard to the question of fraternocracy, Derrida expresses his suspicion over Nancy's use of the term "fraternity" on pages 56-62 of *Rogues*.

thus cannot be exhausted by the reign of capital, I argue that sharing (out) cannot also be immunized against the threat of (among others, capitalistic) appropriation and exploitation, as it does not install impermeable borders or put a limit on those threats.

Nevertheless, Nancy takes this stand when he brings a charge against capitalism as "the choice of a mode of evaluation" and "the result of a decision on the part of civilization: value *is* in equivalence" (Nancy 2010, 23). According to Nancy, the growth of capital as an economic, and consequently, political (for politics is currently motivated by the value of equivalence, and thus, instructed by market economy) paradigm surrenders us to the indifference of equivalence and the indefinite reproduction of the cycle of production and alienation. Therefore, what we call liberal or bourgeois democracy in capitalist society has remained complaisant to the real governing power of the economic forces of accumulation. That is why Nancy points out that we should not reduce our thinking of democracy to opposition to totalitarianisms because they, in fact, "stem from the failure of democracy to produce sense, and to be more than an administrative apparatus of capitalism" (Nancy, Engelman 2019, 100). We also should not ignore the fact that, in recent history, the diffusion of democracy has been closely associated with the expansion of capitalism. At the same time, we should not take this connection for granted. Since "[d]emocratic politics opens the space for multiple identities and for their sharing (out)" (Nancy 2010, 26), capitalism, with its ambiguous relation to democratic citizenship, may create an illusion of the possibility of social transformation through extension of citizenship rights without the necessity of abandoning the capitalistic paradigm. However, as Ellen Meiksins Wood argues, "capitalism, while in certain historical conditions conducive to 'formal democracy', can easily do without it—as it has done more than once in recent history" (2016, 248). Furthermore, because of its "indifference to the social identities of the people it exploits" (266) and its essential independence of extra-economic conditions, it gives us a false sense of equality between people while remaining very effective in exploiting any extra-economic oppression for its own gain. Going back to Nancy, we can argue that capitalism relies on equivalence which only creates an illusion of equality while remaining a basis for non-equivalence of economic domination (Nancy 2010, 24). As such, the capitalistic market, both in its economic and political sphere (if these two spheres can still be decoupled), rather than contributing to freedom, creates a space of exploitation and coercion. Nancy's position is therefore consistent with Meiksins Wood's diagnosis that the idea of progress and social transformation under

the aegis of capitalist economy "is just a sleight of hand which invites us to imagine, if not a smooth transition from capitalist democracy to socialist (or 'radical') democracy, then a substantial realization of democratic aspirations within the interstices of capitalism" (Meiksins Wood 2016, 271).

A similar accusation against the alliance of capitalist economy and liberal democracy can be found in Derrida's *Specters of Marx*. Derrida objects there to the triumphant discourse on behalf of this alliance, which is considered if not political fulfillment, then, at least, the ideal orientation which marks out progress of the history of humanity. This triumphant position, as Derrida notices, plays down contemporary cataclysms, crises, catastrophes, and genocides by deeming them as a mere empirical phenomena, which in no way can impair the status of this ideal orientation of liberal democracy. Derrida argues that while democracy (as democracy to come) cannot be hopeless, it nevertheless has to remain foreign to any teleology (which include any display of neo-evangelization in the name of liberal democracy) and heterogeneous, or even rebellious, to law and power (Derrida 2005b, xv). Moreover, Derrida wonders how we can still ignore "this obvious macroscopic fact, made up of innumerable singular sites of suffering" (2006, 106): examples of unprecedented destruction of human and non-human lives and, although he does not mention this, the environment. This exploitative character of capitalist economy is emphasized once again by Meiksins Wood:

> [...] the essential irrationality of the drive for capital accumulation, which subordinates everything to the requirements of the self-expansion of capital and so-called growth, is unavoidably hostile to ecological balance. If destruction of the environment in the Communist world resulted from gross neglect, massive inefficiency, and a reckless urge to catch up with Western industrial development in the shortest possible time, in the capitalist West a far more wide-ranging ecological vandalism is not an index of failure but a token of success, the inevitable by-product of a system whose constitutive principle is the subordination of all human values to the imperatives of accumulation and the requirements of profitability (2016, 265-266).

As a response to this destructive tendency, Meiksins Wood proposes a radical, democratic alternative to the imperatives of accumulation and market economy in general: "What I mean is not simply 'economic democracy' as a greater equality of distribution. I have in mind democracy as an economic regulator, the *driving mechanism* of the economy" (2016, 290), which would promote not only democratic organizing, but also emancipation from coercion characteristic to the market-based imperatives. However, as something which exceeds the economy for the purpose of inspir-

ing it, democracy would have to remain heterogeneous to the economic order. Otherwise, it would simply remain bound by the constraints imposed by this order. In that case, every democratic action would be justifiable only on condition that it was cost-effective. Similarly, every plan of protection of the environment or non-human lives (which, as I will show, can be seen as a democratic imperative) would have to be, first and foremost, justifiable economically to be considered applicable, practicable, or even reasonable.

In a similar vein, Nancy argues that to displace economic domination (Nancy 2010, 24), dislodge the very foundations of general equivalence, put into question its false infinity (Nancy 2010, 31),[4] and by consequence, call in question the morality of liberal individualism, a new nonequivalence of the unique and singular which emerges out of the common should become the destiny of democratic politics. The latter, as politics which "withdraws from all assumptions" (Nancy 2010, 32) and support "the possibility of not being measured in advance by a given system" (Nancy 2010, 24), must be committed to justice as the excess of responsibility which goes beyond any ontological and economical determinations. For Nancy, it means that justice "can only reside in the renewed decision to challenge the validity of an established or prevailing 'just measure' in the name of the incommensurable" (Nancy 1993b, 75). For Derrida, in turn, this commitment would involve messianic eschatology as "a structure of existence" (Derrida 2008, 250) which opens the future for the coming of the incommensurable and unexpected. Only such a messianic structure would attest to the kind of kenosis to which democracy should aspire.

> What has to be 'saved' by this kenosis, if it is the irruption of a future that is absolutely non-reappropriable, has to have the shape of the other, which is not simply the shape of something in space that cannot be reached. That which defies anticipation, reappropriation, calculation—any form of pre-determination—is *singularity.* There can be no future as such unless there is radical otherness, and respect for this radical otherness. It is here—in that which ties together as non-reappropriable the future and radical otherness—that justice, in a sense that is a little enigmatic, analytically participates in the future (Derrida, Ferraris 2001, 21).

What can such a perspective offer? It might seem a little disappointing not only because it does not prescribe any ready-made solutions just as it does not instruct us how to conduct ourselves during turbulent times, but also because our political efforts must always disappoint the democratic

[4] That is, "the infinite of the interminable growth of accumulation, the cycle of investment, of exploitation and reinvestment" (Nancy 2007, 46).

exigency of justice. In other words, if there is one thing we are destined to, it is failure to fulfill our infinite obligation towards the other(s). On the other hand, we should *not* fail in accepting, welcoming or even being haunted by this democratic challenge, and if we are always failing in our actions, which are measured against this infinite (or should we say, incommensurable) promise of democracy, the challenge is to fail well.

Nevertheless, Nancy urges to put this obligation "into actuality, into work, into labor" (Nancy 2010, 25), even if this work remains devoid of any assured destination. What Nancy proposes is an inversion which would turn "the insignificant equivalence reversed into an egalitarian, singular, and common significance. The 'production of value' becomes the 'creation of meaning.' This hypothesis is fragile, but perhaps it is a matter of grasping it, not as an attempt at a description, but as a will to act" (Nancy 2007, 49). Consequently, and following in Derrida's footsteps, Nancy argues for trying to make the impossible possible, which would require of us to take "a boundless leap outside of the calculable and controllable reality" (ibidem), but without giving up on the calculable, our day-to-day activism, institutions, political *praxis*. As Derrida avows, "the truth is that one must do the impossible, and the impossible would perhaps be the only measure of any 'must' [*il faut*]" (2013, 30), "a measureless measure [*mesure* sans *mesure*] of the impossible" (Derrida 1992, 29). However, rather than being a merely formal proposition, this exigency has to inform our experience and inspire our actions.

The aporetic injunction to make the impossible possible, to live together while remaining faithful to the obligation toward the singularity of the other, which each time interrupts the whole of living together, attests to the insatiability of the democratic cause, for, as Nancy contends, "[i]f democracy has a sense, it would be that of having available to it no identifiable authority proceeding from a place or impetus other than those of a desire—of a will, an awaiting, a thought—where what is expressed and recognized is a true possibility of being *all together*, *all and each one among all*" (2010, 14). That is why Nancy argues that democracy must in some way be communist, but this thinking would obviously necessitate to reimagine what the common might mean: to begin with, we cannot uphold the classical concepts of community and intersubjectivity. Another, explicitly non-totalitarian way of thinking of communism—and this is a postulate of both Derrida and Nancy—is necessary: "where the common is anything but the common" (Derrida, Ferraris 2001, 25), namely, where "we have community that does right by interruption" (25). If democracy is not aspiring to do the impossible,

to wit, to find out how to live together in respect of a singular interruption, then it is "but the management of necessities and expediencies, lacking in desire, that is, in spirit, in breath, in sense" (Nancy 2010, 15).[5] As such, it remains restricted to calculation, and thus, devoid of its spirit. And yet, democracy has to be faithful to its spirit *qua* breath which must inspire our every postulation and political activity (30) without falling prey to idealism or spiritualism, namely, without being detached from the material, factual conditions of our dwelling. For the breath of democracy is anything but disaffection and cold sublimity.

Air Democracy

Democracy is therefore about breathing and being able to breathe. When Nancy at one point postulates that in looking for democracy one must learn how to listen (Nancy 2010, 28), we could also argue that one has to learn how to breathe and how to share air (if those two things are not the same).

In ancient Greek, the word *pneuma* means both breath and spirit. For Luce Irigaray those two spheres—material and spiritual—are inseparable: in order to flourish, in every sense, one has to breathe well: "Breathing is the first and the last gesture with regard to life" (Irigaray 2016, 21) and life cannot be reduced either to the idealist or the materialist perspective.

[5] According to Nancy, this spiritual character of democracy, far from being idealistic, is "the breath of man, not the man of a humanism measured against the height of man as he is given […] but man who infinitely transcends man" (2010, 15). However, could thinking of democracy overcome Nancy's, if not humanistic, then at least seemingly anthropocentric and openly fraternalistic perspective? In *The Experience of Freedom*, Nancy states that what grants us humanity is not being human as a pre-constituted subject. For Nancy, the essence of humanity belongs to being-in-common which arises from sharing (out). At the same time, Nancy states that "[o]n the archi-originary register of sharing […] there are no 'human beings'" (1993b, 73). Thus, if humanity arises "from relation" (which is not already ontologically determined, and therefore, which does not belong to the order of presence-to-itself), then it can only arise from our relation (or perhaps, less ontologically determinable referral) to the other of whom we cannot tell yet (or at all) "human." Therefore, our humanity can and should *also* (or—phenomenologically speaking—*first of all*) arise from our relations with non-humans or not-yet-humans. If these relations were exclusive to humans, they would have to presuppose some kind of understanding of what human *is*. Consequently, in our humanity, in our infinite task of transcending man, we rely on the other, and thus, inevitably, on non-human others, perhaps even on inanimate non-humans. It seems therefore necessary for democracy to account also for those relations. Consequently, democracy should also be committed to the exigency of justice which is not profoundly anthropocentric. Climate justice might be its example or its display.

Although its crucial function has been forgotten, and that forgetfulness has led to "a separation between body and soul (Irigaray 2015a, 254), "breathing is what allows for a passage from vegetative to spiritual life" (Irigaray 2016, 22), and as such, it is a condition *sine qua non* for both the preservation and transcending of biological life.

In Irigaray's view, when addressing the question of life, we have to take into account both cultural and natural conditions of its sharing and its growth. Hence, Irigaray's critique is aimed at the cultural constructs and values ("To claim one is environmentalist before questioning our cultural tradition does not really make sense" [Irigaray 2015b, 101]) which constrain our lives and pervert our relation with others, beginning with the relation between man and woman and ending with the relation between human and vegetal life: "our social rules and conventions are based on the neutralization of the living more than on its respect and its cultivation" (Irigaray 2016, 89).

It is by starting from sexuate difference[6] that we recognize the other is different than me, which, in turn, "leads us to recognition of other forms of diversity" (Irigaray 2000, 12).[7] Thus, the paradigm of subjectivity as a model for all living beings arranged according to a hierarchy as the model's more or less imperfect copies, namely, the dominant paradigm of the Western Tradition, is replaced with the unconditional respect for sexuate difference. The latter must consequently be followed by the ethical realization that every other is infinitely different than ourselves and irreducible to any abstract construct. This realization, in Irigaray's view, not only has an essential impact on our relations with others, but also results in our reconciliation with nature. Irigaray, therefore, just like Nancy, rejects social reality in which every member of a society is measured, in the name of individualism, against the same abstract model of civic subjectivity with disregard for singular differences.

Starting from the relation between man and woman, "the most basic and universal place where ethics must be exercised" (Irigaray 2015a, 253), the respect for sexuate difference offers a "new approach to democracy" (Irigaray 2000, 22). The latter relies from now on a dialogical bond between

[6] Irigaray uses neologism "sexuate" [*sexué(e)*] instead of "sexual" [*sexuel(le)*] in order to emphasize the relational character of sexuate difference. As such, the latter cannot be viewed solely from the perspective of either cultural or biological sex. Also, sexuate difference should not be simply confined to sexual orientation or preference since it exceeds a mere sexual drive (cf. Szopa 2018, 176-189).

[7] As Irigaray states elsewhere, "1 have been searching for a possible way of safeguarding Being, without, for all that, contributing to the power of the one. I have therefore promoted Being two" (2004b, 233).

two equal but irreducibly different living beings, which becomes the first display of biodiversity (Irigaray 2015b, 103): "[t]he sharing out of political responsibility can only help to bring about some change here if it is founded on two different identities" (Irigaray 2000, 37), and furthermore, "[d]emocracy begins through a civil relationship, protected by rights, between a man and a woman, a male citizen and a female citizen, each and every citizen" (39). Such a perspective becomes a "basis for [a] 'renewal of the moral and democratic foundations'" (22).[8]

Now, since *both* the domination and violence which we witness or experience in our human relations (especially in the case of the oppression of women) *and* the exploitation and mastering of nature find, according to Irigaray, the same root in our perverted culture, then we cannot simply tackle one issue and ignore the other. As she argues, "[t]he removing of woman from herself originates in a man's domination over nature" (2004c, 167). Likewise, in a recently published discussion with Noam Chomsky, he emphasizes the importance of more comprehensive approach towards contemporary challenges. While the question of climate justice remains one of the most urgent issues for humanity, it cannot displace other struggles. We should therefore build a general awareness about those troubling and urgent issues in hope that it will contribute to our knowledge of interrelation between different forms of oppression and what causes them: "Such awareness and understanding presupposes a much broader sensitivity towards the tribulations and injustices that plague the world—a deeper consciousness that can inspire activism and dedication, deeper insight into their roots and linkages" (Chomsky 2020, 75). Thus, since the democratic injunction has as its aim universal happiness and well-being, which can be realized only by living together through respectful and responsible sharing of the world, then we must "build a new form of democratic civilization which is not solely or primarily concerned with the possession of good but rather, first and foremost, with respect for individual existence" (Irigaray 2000, 25). Hence, even though the democratic task cannot lose sight of the question of the human, it has to be extended beyond the circle of our species.

Now, while for Irigaray air is an elementary condition for biodiversity, it also provides us with a political perspective which encourages the dismantlement or transformation of oppressive and authoritarian structures and institutions resulting in the turn from totality to plurality and diversity.

[8] Cf. Irigaray 2004b, 233.

> If we were capable of forming every whole while taking air into account, our totalities would lose their systematic and authoritarian nature. They would also remain capable of transformation in order to enter into relations with an other, or to form a community with others, without each losing their singularity (Irigaray 2016, 24).

Breath and air thus play an integral part in this democratic critique ensued by the affirmation of the vegetal world—a world which does not comply to the economy of calculation (Irigaray 2000, 168) but rather, at the most basic level, realizes a universal and seemingly *aneconomic* vision of sharing: "the trees or other plants purified my breath without asking for anything in return" (Irigaray 2016, 21). There is however another, much more fragile kind of economy at stake—one which barely merits keeping its name, especially if we identify economy with calculability and measurability (just as is the case with market economy). Breathing exemplifies this vulnerable economy. In fact, breathing's very nature is equated by Irigaray with this economy. It serves therefore as both an example and an exemplar insofar as it is not subjected to any rigid rules. Rather, it "varies depending on whatever and how we embody our existence" (Irigaray 2016, 97). That is why Irigaray uses such words as "gift" and "gratitude", "sharing" and "celebration" when she talks about this "universal economy of living beings" (Irigaray 2017, 131). The contribution of the vegetal world (as an unselfish provider of air) to this universal economy, which is an economy of peaceful coexistence, sustainability and growth of life,[9] must therefore be exemplary, and although our role in this economy is different than that of the vegetal world, the disinterest of the vegetal world, which is anything but indifference or apathy,

[9] A similar point is raised by Vandana Shiva in her book *Earth Democracy*, where she speaks of democracy which restores sanctity of life in all beings (2015, 7) and recognizes diversity as something to be "celebrated as the essential condition of our existence" (55). Consequently, she proposes to replace market-based economies with living economies, which are non-violent, decentered, and oriented toward sustainability of life in its biodiversity. Living economies are based on ecologically conscious co-production, co-ownership, and responsible sharing. From this point of view, living economies coincide with a democratic paradigm in which rights and ownership are restored to local communities, and power, rather than being centralized, is dispersed and exercised mainly at the local level. As a result, the communities could take control over their livelihoods and access to natural resources. This approach would stand against "the dominant [capitalistic—AK] culture of death and destruction" and "abstract constructions created by the dominant powers in society" (99). Concurrently, it would allow people to create their own, more adequate response to the issues of environmental protection and survival. At the same time, this democratic paradigm would attest to a universal (global) idea "that we all share one common humanity and one commonality with all beings and life forms" (79).

gives us an idea about our attitude towards the environment: the vegetal world "says to us that it is not fitting to take advantage of the environment in which we live without making our contribution to it" (Irigaray 2017, 128).[10]

Hence, breathing provides access to this most originary and intimate, both spiritually and physically, experience of our interdependence with the natural world and other living beings. A form of communion, if not communism, a bond which cannot be subsumed under any rigid category of traditionally anthropo- and phallo-centric political ontology, but which is founded on always vulnerable principles of gratitude and responsibility, takes place. A new citizenship, not authorized by any political institution, is sensed[11] and finds its legitimacy in the experience of sharing.

[10] Now, if we interpret ethics in the hyperbolical way Derrida does, namely, as the "essentially" non-metaphysical "obligation that engages my responsibility with respect to the most dissimilar [*le plus dissemblable, the least 'fellow'-like*], the entirely other, precisely, the monstrously other, the unrecognizable other" (Derrida 2009, 108) and cannot be exercised simply in accordance with duty, then the task of contributing to the growth of the environment will exceed any prescribed measures, challenge the logic of "good conscience," and transgress any ecological presuppositions. This approach is different from Irigaray's who, despite her affirmation of radical difference, makes metaphysical gestures, that is, the gestures of a metaphysician of life. First of all, indeed in a metaphysical way, she announces that we have forgotten "of a word capable of saying life as such" (Irigaray 2017, 132), assuming later existence of the referent, that is, "life as such": "We must start from life again as the only value that can be universally shareable […] We must thus focus on what we have in common and the way of safeguarding this common good" (Irigaray 2016, 91). "Only life is universal, and starting from life we can build a human culture and accomplish humanity" (Irigaray 2016, 89). We also have to remember of her commitment to the notion of auto-affection and the possibility of the return to the self, which is strictly connected with the question of transcendental autonomy (which is established through the "return to the solitude and the silence of [one's] own soul" [Irigaray 2004c, 167]). And finally, Irigaray assumes the presence of the other's intimate self which is, however, "neither to be seen nor to be seized" (Irigaray 2015a, 265). We have to, nevertheless, keep in mind that, as opposed to the traditional metaphysics, for Irigaray every life is "sexuated," and therefore, relational through and through. That is why this singular autonomy is paradoxical and very problematic, especially if we want to contain it within traditionally metaphysical language. The question remains if there is possibility to even think of a language capable of enacting such a description. Even Irigaray states that "[p]roducing a universalizing discourse, without being unjust or oppressive, is extremely difficult, perhaps impossible (2004a, 220).

[11] Irigaray talks here about "the sensibility toward coexisting with the other, thanks to a measure of respect, rationality and thought" (Irigaray 2000, 117). Therefore, no renunciation of intellect is prescribed and the incalculability of the other must be eventually mediated by the calculable (*logos*).

> Air put us into living relations even if we did not assume the same role with respect to it. Through air, I participated in a universal exchange from which my tradition cut me off. Thus, I was alone and not alone. I took part in a universal sharing. Gradually, I experienced such an involvement, and this brought me comfort, gratitude, and also responsibility. I became a citizen of the world, first as an inhabitant of the earth who joined in a sharing of air (Irigaray 2016, 22).[12]

Breathing teaches us how to be autonomous singularities, for it allows us to dwell in the world on our own, that is, relying on our own breath.[13] However, at the same time, breathing shows us that we cannot be fully detached from the world. Thereby, we have to think of autonomy in a different way (at least if we want to uphold the infinite difference between singularities instead of falling prey to symbiotism or reductionism): the myths of pure autarchy and neutralized individuality must remain but abstract ideas, which truly stand against the lessons we can draw from breathing: we rely on others just as we are responsible for them. That is why care for growth and cultivation of our own, both spiritual and physical, life is interrelated with care for the environment. And according to Irigaray's diagnosis, we have disregarded this simple fact because we have forgotten how to breathe, to wit, we have forgotten to take breathing seriously. We have therefore disregarded the injunction of justice which, according to Irigaray, can find its fulfillment in governing devoted to the development of all living beings (Irigaray 2016, 89).

Irigaray argues that this disregard stems from our crooked logic which we apply to the surrounding world and to our inner selves, and which may "result from a contempt for and finally a forgetting of a word capable of saying life as such" (Irigaray 2017, 132). Consequently, our world must remain

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[12] Now, since for Irigaray, as she states in the introduction to the part IV of her *Key Writings*, working for the constitution of democratic societies is based on an active weaving of relations between citizens, then we have to ask what this new kind of citizenship based on a universal sharing with nature brings to the democratic project. If we are to be such citizens, then we have to be vested with both rights and duties with regard to the environment. So, if this citizenship takes into account, or rather consists in our sharing with the world, then not only are we responsible for cultivation of life and care for the natural environment but we also must be endowed with rights to live in a peaceful coexistence with the natural world. In other words, the fundamental issues of civil liberty or freedom could not be considered apart from rights like those to clean air or clean water. Consequently, destruction of biodiversity and devastation of the natural environment should be interpreted as both an assault on civil rights and a crime against humanity.

[13] For Irigaray, cultivation of breath is crucial, above all, in the process of emancipation of women (Irigaray 2004c, 165-171).

impoverished as long as our language fails to address the question of sexuate difference and the infinite singularity of the other. Moreover, in her diagnosis, Irigaray welds these two issues, of natural exploitation and barrenness of language, together: "[t]here are two quite fundamental problems which we have to confront today: the exhaustion of natural reserves and the exhaustion of the reserves of meaning and truth in discourse" (2004a, 214). Therefore, it comes as no surprise that Irigaray attaches exceptional weight to the question of language, which she puts simultaneously in both archeo*logical* and teleo*logical* perspective: we have forgotten how to bond with nature and each other; our language has been used as a tool for appropriation of the other, and consequently, it has been incapable of expressing the universal sharing as dwelling in the world; ultimately, deep changes to our culture and language, which consist in disclosure of sharing and favoring communication over mastery, are necessary.

> Our removal from the vegetal world has been accompanied by the loss of a language that serves the accomplishment and sharing of life [...] It is then the question of a language that lets, and even gives, each one its own being, and, in a way, entrusts to each one the responsibility for its destiny. Now, instead of a living being reaching its appearing only thanks to a human thinking, supported by a *logos*, it is its appearing as disclosure of life that sets us thinking (Irigaray 2017, 134).

> All the living beings are more interrelated, whatever their difference(s), than our discourses let us assume, a deficiency which does not contribute toward the respect for our common belonging and for the environment that is necessary to it (Irigaray 2015b, 106).

In practical terms, we lack syntax and words which could express our interrelationship with nature or contribution of the vegetal world to the preservation of life (Irigaray 2017, 129). We are thus unable to speak of care for life and its growth in the way which could emulate the attitude of the vegetal world towards other living beings. Because our language increases our alienation from the world and each other, it is inefficient in addressing our differences and interests and in defining, in a comprehensive way, the aims and policies which should be set by ecological ethics and modern politics: "Our language is more and more coded, and the technical means we employ to express ourselves and communicate from a distance make it gradually weaker and dead" (Irigaray 2016, 90). Since "[t]he way we have to welcome the other, outside or inside of us, does not yet exist in discourse" (Irigaray 2015a, 260), language becomes thus a domain of both individual and common responsibility, and it is up to us to transform lan-

guage so we could mirror the ideas of sharing and cultivation of life in rights and policies. With that in mind, we have to reelaborate the existing laws and mobilize international institutions accordingly to the demands which are arising from the environmental crisis we are facing. Simultaneously, we have to reinvent our role in the living world to come. As Irigaray avows in her book on democracy, "I have tried to discover new words that preserve sensitive awareness in the working out of a civil and political relationship" (Irigaray 2000, 28).

Similarly, Franco Berardi, for whom breathlessness is tragically the sign of our times (Berardi 2018, 15),[14] insists on an urgent necessity for a transformation of our language. As opposed to measured and conventional use of language, which is subjected to the capitalist logic of economic exchangeability, Berardi seeks for help in poetry. While language may be entrapped within the confines of social communication, which nowadays relies on market economy, it is nevertheless immeasurable and illimitable. In his view, it is up to poetry to bear witness, in its excessiveness, to the boundlessness of language and to allow us to abandon meanings which have been failing us, to open our world to the other and to step toward the yet unknown. In poetry, therefore, to use Nancy's words, the incalculable can be—always inexhaustibly, imperfectly, and infinitely—shared (out) (Nancy 2010, 17).

> What we are accustomed to call "the world" is an effect of a process of semiotic organization of prelinguistic matter. Language organizes time, space, and matter in such a way that they become recognizable to human consciousness. This process of semiotic emanation does not reveal a natural given; rather, it unfolds as a perpetual reshuffling of material contents, a continuous reframing of our environment. Poetry can be defined as the act of experimenting with the world by reshuffling semiotic patterns (Berardi 2018, 20).

[14] While the statement "I can't breathe" has emerged today in a certain context of state violence against the African-American community, it can pertain to so many forms of political and economic oppression. On so many levels, and across so many dividing lines, of which division by class, race or sex is perhaps the most incisive, this breathlessness, in its figurative and literal take, becomes an inevitable outcome of years of coercion, invigilation, exploitation, and negligence. How can one breathe if there is a cop's knee on one's neck? How can one breathe when air is so polluted? How can one breathe when one is being exploited in one's workplace? How can one breathe when one is a prisoner of one's own household? How can one breathe when the state apparatus is designed to spy on people and is so eager to criminalize investigative journalism? How can one breathe in African-American communities? How can one breathe in Gaza? How can one breathe in the Amazon Jungle in Brazil under Jair Bolsonaro? How can one breathe in Amazon's warehouses?

Poetry, in its broad understanding as an unrestrained invention within the boundless realms of language, may thus be a tool of "semiotic insolvency" (32) and political defiance. The latter, as a response to a spasm of society (which Berardi defines as both physical and psychological corespiration of its singular members) afflicted by breathlessness, inevitably relies on invigoration of people by means of political imagination and nonconventional and daring solutions. Invention of new acts of language is therefore necessary to escape the totalitarianism of measurability and to "enable the imagination of new infinities" (31) in a response to the looming crises. In search for air, in our leap towards democracy and justice, we dream again of new forms of international solidarity, cooperation in our struggles, and resistance. As Chomsky points out, "the struggles against injustice and oppression must develop interactions and mutual support in their own ways" (Chomsky 2020, 85, cf. 81).

Heir Democracy (Conclusion)

While Berardi, in *Breathing. Chaos and Poetry*, adduces Hölderlin's words about absence of any ultimate measures on earth, something Nancy would have certainly subscribed to, Derrida refers to Hölderlin's belief that through language we are inheritors by virtue of our very existence.

> We receive as our share the possibility of sharing, and that is none other than the possibility of inheriting […] We inherit nothing, except the ability to inherit and to speak, to enter into a relation with a language, with a law, or with "something" that makes it possible for us to inherit, and by the same token, to bear witness to this fact by inheriting… (Derrida, Stiegler 2007, 132)

For Derrida, however, the fact that we are inheritors through and through coincides with the fact that our lives are structured by mourning and survival: "To survive in the usual sense of the term means to continue to live, but also to live *after* death" (Derrida 2007b, 26), which implies that our lives rely and are permeated by the possibility of death. However, we can never experience death as our own but only through others, which does not mean that we are not mortal and death is for us any less real, but on the contrary—every passing moment is marked by the imminence of death and the pressing necessity that one day we will die. Before that happens, however, we will survive people we love, and those whose deaths will remain anonymous to us. We will survive disappearing and perishing worlds of monstrous and *immontrable*, *méconnaissable* and non-human others. And at

some point, we will be survived by other inheritors who will then take responsibility for what will remain after us. Derrida refers to the knowledge that one must always go before the other in one of his elegiacal texts: "Friends know this, and friendship breathes this knowledge, breathes it right up to expiration, right up to the last breath" (Derrida 2003, 171). Living *on* is thus a question of breathing *on*, and it entails the insistent thought of respiration as expiration—something which Derrida encapsulates in an eerie phrase "I posthume as I breathe."[15]

Now, since this interruption of life by death is the very condition of living (on), it must imply that the alterity of past and future has its constitutive share in our lives to the point where no pure identity, totality or simple presence can ultimately be preserved. Consequently, "'living together' no longer has the simplicity of a 'living' in the present pure and simple" (Derrida 2013, 20). And since "our" "living together" is permeated by mourning and structured by survival, it can never be exhausted or contained. Thereby, we are endowed with irreducible responsibility for something which was never in our possession or given as such, namely, responsibility for both the past and future. This demand implies that an unforeseeable future remains to be open.

This assignation of responsibility cannot therefore be thought otherwise than as inheritance. That is why Derrida states that "[i]t would be necessary to think life on the basis of heritage, and not the other way around" (Derrida, Roudinesco 2004, 4). As he explains, because of the irreducible tension between the passivity of heritage and affirmative decision, we are never in the position to choose an inheritance. Rather, we are "violently elected" to keep the inheritance alive (3), but without illusion of its final salvation. From this perspective—which radically repudiates any ethical dogma serving as a good conscience, and which emphasizes the need for vigilance, reinterpretation, and "active transformation" of existing conditions—responsibility based on the reaffirmation of the heritage incites us to refrain from injuring or putting to death (4).

[15] As he later explains, "in saying 'I posthume as I breathe,' I thought I meant that nothing is, like breathing itself, as natural, spontaneous, habitual, unreflective, reflexive, indispensable to life as being obsessed with the postmortem, fascinated, worried and interpellated, and I thought I was playing in crossing the sense of what comes after death, the flair of breathing, and what comes after burial" (Derrida 2011, 173-174). Aside from the obvious existential anxiety, this phrase can also express more ethical concern about the fate of those already dead and those who are not yet born but who, in the originary dimension of survival, will come after us.

As Derrida argues in *Specters of Marx*, "without this responsibility and this respect for justice concerning those who are not there, of those who are no longer or who are not yet present and living, what sense would there be to ask the question 'where?' 'where tomorrow?' 'whither?' " (2006, xviii). As such, justice carries life beyond present life toward living on (xx) and it cannot be conditioned by present existence or essence (220).

How could we thereby address those critical issues of climate justice, were we not concerned with ghosts of the past and the future: those numberless victims of exploitation and the degradation of the natural environment, those victims of what Derrida calls "capitalist imperialism"? As he points out, no ethics and politics is thinkable without taking this non-contemporariness as our point of departure, which always leaves the question of future open and unquelled. If there is any gist of democracy, perhaps it is this unquenchable desire for justice fueled by "the recognition that we never live in a (sufficiently) democratic society. This critical work is more than critical, this deconstructive task is indispensable for democratic breathing space, as for any idea of responsibility…" (Derrida 2005a, 140).

Bibliography

1. Berardi Franco "Bifo" (2018), *Breathing. Chaos and Poetry*, South Pasadena: Semiotext(e).
2. Chomsky Noam (2020), *Internationalism or Extinction*, New York: Routledge.
3. Derrida Jacques (1984), "Signature Event Context", [in:] idem, *Margins of Philosophy*, trans. A. Bass, Chicago and London: The University of Chicago Press.
4. Derrida Jacques (1992), *Given Time: I. Counterfeit Money*, trans. P. Kamuf, Chicago and London: The University of Chicago Press.
5. Derrida Jacques (2003), *The Work of Mourning*, eds. P. A. Brault, M. Naas, Chicago and London: The University of Chicago Press.
6. Derrida Jacques (2005a), *Paper Machine*, trans. R. Bowlby, Stanford: Stanford University Press.
7. Derrida Jacques (2005b), *Rouges: Two Essays on Reason*, trans. P. A. Brault, M. Naas, Stanford: Stanford University Press.
8. Derrida Jacques (2005c), *The Politics of Friendship*, trans. G. Collins, London and New York: Verso.
9. Derrida Jacques (2006), *Spectres of Marx*, trans. P. Kamuf, London and New York: Routledge.
10. Derrida, Jacques (2007a), "Abraham, the Other", trans. B. Bergo, M. B. Smith, [in:] B. Bergo *et al.* (eds.), *Judeities: Questions for Jacques Derrida*, New York: Fordham University Press, pp. 1-35.
11. Derrida Jacques (2007b), *Learning to Live Finally: the Last Interview*, trans. P. A. Brault, M. Naas, London: Palgrave McMillan.

12. Derrida Jacques (2008), "Marx & Sons", trans. G.M. Goshgarian, [in:] M. Sprinker (ed.), *Ghostly Demarcations*, London and New York: Verso, pp. 213-269.
13. Derrida Jacques (2009), *The Beast & the Sovereign, vol. 1*., trans. G. Bennington, Chicago and London: The University of Chicago Press.
14. Derrida Jacques (2011), *The Beast & the Sovereign, vol. 2*., trans. G. Bennington, Chicago and London: The University of Chicago Press.
15. Derrida Jacques (2013), "Avowing", trans. G. Anidjar, [in:] E. Weber (ed.), *Living Together: Jacques Derrida's Communities of Violence and Peace*, New York: Fordham University Press, pp. 18-41.
16. Derrida Jacques and Ferraris Maurizio (2001), *A Taste for the Secret*, trans. G. Donis, Cambridge: Polity Press.
17. Derrida Jacques and Roudinesco Elisabeth (2004), *For What Tomorrow…*, trans. J. Frost, Stanford: Stanford University Press.
18. Derrida Jacques and Stiegler Bernard (2007) *Echographies of Television: Filmed Interviews*, trans. J. Bajorek, Cambridge: Polity Press.
19. Irigaray Luce (2000), *Democracy Begins Between Two*, trans. K. Anderson, London: The Athlone Press.
20. Irigaray Luce (2004a), "How Can We Speak with Socialism as Our Horizon?", [in:] idem, *Key Writings*, London and New York: Continuum, pp. 214-223.
21. Irigaray Luce (2004b), "Politics and Happiness", [in:] idem, *Key Writings*, London and New York: Continuum, pp. 230-234.
22. Irigaray Luce (2004c), "The Age of Breath", [in:] idem, *Key Writings*, London and New York: Continuum, pp. 165-171.
23. Irigaray Luce (2015a), "Ethical Gestures Towards the Other", [in:] L. Irigaray, M. Marder (eds.), *Building a New World Luce Irigaray: Teaching II*, Basingstoke and New York: Palgrave Macmillan, pp. 253-271.
24. Irigaray Luce (2015b), "Starting from Ourselves as Living Beings", *The Journal of the British Society for Phenomenology*, 46, 2, pp. 101-108.
25. Irigaray Luce (2016), "Luce Irigaray", [in:] L. Irigaray, M. Marder, *Through Vegetal Being. Two Philosophical Perspectives*, New York: Columbia University Press.
26. Irigaray Luce (2017), "What the Vegetal World Says to Us", [in:] M. Gagliano *et al.* (eds.), *The Language of Plants: Science, Philosophy, Literature*, Minneapolis: University of Minnesota Press, pp. 126-135.
27. May Todd (1997), *Reconsidering Difference: Nancy, Derrida, Levinas, and Deleuze*, University Park: The Pennsylvania State University Press.
28. Meiksins Wood Ellen (2016), *Democracy Against Capitalism. Renewing Historical Materialism*, London and New York: Verso.
29. Nancy Jean-Luc (1990), "Sharing Voices", trans. G. L. Ormiston, [in:] G. L. Ormiston, A. D. Schrift (eds.), *Transforming the Hermeneutic Context. From Nietzsche to Nancy*, Albany: State University of New York Press, pp. 211-260.
30. Nancy Jean-Luc (1991), *The Inoperative Community*, trans. P. Connor *et al.*, Minneapolis and Oxford: University of Minnesota Press.
31. Nancy Jean-Luc, (1993a), *The Birth of Presence*, trans. B. Holmes *et al.*, Stanford: Stanford University Press.
32. Nancy Jean-Luc (1993b), *The Experience of Freedom*, trans. B. MacDonald, Stanford: Stanford University Press.

33. Nancy Jean-Luc (2007), *The Creation of the World or Globalization*, trans. F. Raffoul, D. Pettigrew, Albany: State University of New York.
34. Nancy Jean-Luc (2010), *The Truth of Democracy*, trans. P. A. Brault, M. Naas, New York: Fordham University Press.
35. Nancy Jean-Luc and Engelman Peter (2019), *Democracy and Community*, trans. W. Hoban, Cambridge and Medford: Polity Press.
36. Shiva Vandana (2015), *Earth Democracy*, Berkeley: North Atlantic Books.
37. Szopa Katarzyna (2018), *Poetyka rozkwitania. Różnica płciowa w filozofii Luce Irigaray*, Warszawa: Instytut Badań Literackich PAN.
38. Wood David (2003), "What Is Eco-Phenomenology?", [in:] C. S. Brown, T. Toadvine (eds.), *Eco-Phenomenology*, Albany: State University of New York Press, pp. 211-234.

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Political Responsibility for Climate Change

Abstract

Global structural injustices are harms caused by structural processes, involving multiple individuals, acting across more than one state. Young develops the concept of 'political responsibility,' to allocate responsibility for structural injustice. In this paper, I am going to argue that when considering the climate crisis Young's model needs to be adapted—to have *agency* as a basis for allocating political responsibility instead of *contribution*. This is a more intuitive way to allocate responsibility for the climate crisis given its nature as a threshold problem, and the subtle structural positions occupied by the individuals involved.

Keywords

The Climate Crisis, Responsibility, Structural Injustice, Agency, Iris Marion Young

Introduction

The question of how to allocate responsibility for the climate crisis is a serious issue in environmental justice. How the concept of 'responsibility' is constructed will have a bearing on which individuals are responsible and the sort of actions they must undertake to discharge this responsibility. Most approaches to this problem consider it to be an ethical issue (Jamieson 2002; O'Neil 1992). In this paper, I will be using a political approach,[1] considering the climate crisis as a global structural injustice that certain individuals have a political responsibility to mitigate.

[1] A political approach is advocated by Vanderheiden (2008), among others.

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In *Responsibility for Justice*, Iris Marion Young creates a model to allocate 'political responsibility'[2] for the harms caused by the sweatshop industry. The sweatshop industry is a paradigm example of a global structural injustice; it involves the participation of a large number of dispersed individuals, many of whom do not violate legal or moral requirements, but whose actions nevertheless end up harming other individuals. In Young's model, responsible individuals are identified based on their *contribution* to the sweatshop industry.

Young then extends this model to the climate crisis, on the basis that it is also an instance of global structural injustice. While I agree that the climate crisis is an instance of global structural injustice, I will be disagreeing with Young's uncritical extension of the model she uses to allocate responsibility for the sweatshop industry to the climate crisis.

In this paper, I will argue that when considering the climate crisis, Young's model should be adapted to have *agency* (the ability a person has to change oppressive structural processes), not *contribution* (a person causing, perpetuating or reinforcing oppressive structural processes) grounding the allocation of political responsibility.[3] This paper has two main aims:

(1) To adapt Young's late work on political responsibility to apply to the climate crisis;

(2) To argue for an agency-based model of responsibility for the climate crisis using the concept of political responsibility.

First, in S1, I will present Young's concept of political responsibility and the social connection model. I will also draw attention to a principle underlying Young's social connection model, the C-H relationship, which allocates responsibility based on contribution. In S2, I will show some problems that arise with the social connection model when a more detailed analysis of social-structural positions is considered. In S3, I will propose an alternative agency-based prevention model. However, before analyzing the concept of political responsibility, it is important to note how the climate crisis differs from other types of global structural injustice.

[2] Political responsibility is broadly defined by Young (2011) as forward-looking and shared by individuals, with the aim to rectify injustice. I will give a more detailed definition in Section 1.

[3] Other arguments for agency being primary include: the argument from capability (Vanderheiden 2008) the Ability to Pay Principle (Caney forthcoming).

How is The Climate Crisis Unique?

Other global structural injustices, such as the sweatshop industry, are spatially targeted; individuals in the developed West have economic demands that give rise to harms to individuals in the global south, namely through the creation of sweatshops. The sweatshop industry also predominantly involves injustices arising from relationships between human agents. However, the climate crisis has markedly different features to the sweatshop industry, it is:

- Temporally targeted: injustices are directed at a future set of entitles and are caused by the actions of past and current generations, who have contributed to structural processes that involve emitting large quantities of greenhouse gasses (GHG).
- Agents-Agents+: Jamieson (2015, 24) describes the harms that arise from the climate crisis as 'vast damages to much that we care about: human lives, […] species, natural ecosystems.' This encompasses significant harm to more than just human agents (as in the sweatshop industry) meaning that harmed entities in the case of the climate crisis must be extended to encompass things like species and natural ecosystems.
- A threshold problem: it is currently very difficult to prevent, and will after a certain time be more difficult to rectify, the harms to harmed entities *qua sufferers of the climate crisis*. Empirically, this is because climate change is a threshold problem; once a certain atmospheric concentration of greenhouse-gasses has been emitted, there is nothing that can be done (considering our current technology) to reverse its effect (Jamieson 2015, 30-34).

These features make the climate crisis different from other global structural injustices and are important to consider when modeling responsibility. In the rest of this paper, I am going to argue that political responsibility should be used when allocating responsibility for the climate crisis, but that Young's specific social connection model should be adapted, based on the features of the climate crisis just outlined.

S1. Contribution and the Social Connection Model

S1.1. Political Responsibility

The concept of political responsibility is used by Young to allocate responsibility for the sweatshop industry, the climate crisis, and other global structural injustices. According to Young, political responsibility has three important features. One of these is being forward-looking; political responsibility allocates duties or actions to relevant individuals to rectify an injustice (Young 2011, 93). Young intends for this to directly contrast with the predominantly backward-looking nature of moral responsibility, which seeks to allocate blame for a moral wrong. Young believes that since precise blame is so difficult to allocate in cases of global structural injustice, it should be replaced with the allocation of a responsibility to rectify the relevant injustice.

The second feature of political responsibility is that it falls on individuals. It is specifically the responsibility of formally unassociated individuals to organize to bring about change. This could involve changing one's own carbon-emitting actions while convincing others to do so too or organizing pressure groups to change company or governmental policy.

The final feature is that it is shared. Young follows Larry May's definition of shared responsibility as 'personal responsibility for outcomes or the risk of harmful outcomes, produced by a group of persons' (May, Strikwerda 1994, 34). Shared responsibility distributes through a collection of individuals in a specific way (Young 2011, 14): It is a responsibility that an individual personally bears, but which comes with the awareness that others bear it too. It involves acknowledging the collective of which one is a part and can only be discharged through collective action (Young 2011, 110).

The applicability of political responsibility to a group-action problem like the climate crisis is clear; an individual bears the responsibility to organize, to prevent the climate crisis from reaching a certain severity, with the awareness that others have this responsibility too.

S1.2. The Social Connection Model and the Liability Model

So, after we have established the concept of political responsibility, the next question is, which agents possess political responsibility? Young uses the 'social connection model' to identify these agents.

She argues that her social connection model differs in important ways from the 'liability model,' which is frequently used to allocate legal and moral responsibility (Young 2011, 96). The liability model (traditionally construed) determines responsibility for injustice along the following lines:

LM: A is responsible for a harm to B iff A has harmed B on the normative standard of legal/moral responsibility.[4]

The liability model connects a 'person's deeds linearly to the harm for which we seek to assign responsibility' (Young 2011, 96). However, if the features of structural injustice mentioned previously are considered, it is clear that this way of allocating responsibility does not work. Since moral/legal wrongs are not necessary for the harms arising from global structural injustices to occur, it is possible that in certain cases the moral and legal normative standards will fail to pick out any agents at all. Similarly, the causal connection between any particular A and B is not straightforward in cases of global structural injustice and may be impossible to determine, especially in the case of climate change (Jamieson 2015, 23). When considering responsibility for global structural injustice, the liability model, therefore, does not allocate responsibility in a useful way.

For cases of global structural injustice, Young proposes the social connection model of responsibility, which is based on the normative standard of political responsibility. The social connection model sees the multiple agents contributing to certain structural processes as responsible for the agents that are harmed by these processes. Due to the conceptual tool of political responsibility, the social connection model can distribute the demands of responsibility without appealing to the notions of blame, guilt, or fault. It does not isolate perpetrators, instead, the responsibility of individual agents is to organize into groups and discharge their political responsibility through collective action (Young 2011, 95). After the allocation of responsibility, the specific actions each individual is supposed to take are shaped by Young's four parameters of agency: power, privilege, interest, and collective ability (Young 2011, 103).

S1.3. The C-H Relation

It is important to note that the focus on contribution means that the social connection model is not entirely forward-looking in approach. Although it is free of backward-looking notions of blame, it is still backward-looking insofar as it relies on causal responsibility in determining which agents to allocate political responsibility. Young states that the social connection model:

[4] Here C can be an individual, corporation or nation.

> Shares with the liability usage […] a reference to causes of wrongs in the form of structural processes […] that individuals bear responsibility for structural injustice because they contribute by their actions to the processes (Young 2001, 105).

According to the social connection model, the attribution of political responsibility to an agent is grounded in that agent's past contribution to structural processes. Specifically, Young sees the two groups of agents implicated in global structural injustice as standing in a contributor-harm relation (Young 2011, 53):

> *C-H Relation*: Where H are agents harmed, and C are unassociated individual agents who contribute to the structural processes that give rise to harms.

However, Young is vague about what counts as a contribution (Barry, Ferracioli 2013, 253).[5] She describes contribution as causing harm 'indirectly, collectively, and cumulatively through the production of structural constraints on the actions of many and privileged opportunities for some.' Young (2011, 97, 125) further states that all contributors should have the same amount of responsibility and should not try to divide and measure it.

Considering this, the social connection model can be formalized as follows:

> Social Connection Model: iff 1) an injustice inflicted on A & A_1 & … & A_n is an outcome of structural processes and 2) B & B_1 & … & B_n contribute by their actions to structural processes that give rise to this injustice, then agents A & A_1 & … & A_n have a political responsibility to transform structural processes in order to rectify the injustice inflicted on B & B_1 & … & B_n.[6]

In the next section, I am going to argue that some issues arise from this grounding in contribution which makes the social connection model unsuitable to allocate responsibility for the climate crisis.

S2. Issues with the Social Connection Model

Three problems arise with Young's social connection model: some individuals in more subtle social-structural positions[7] are not taken into account, some individuals who intuitively seem to have political responsibility are not

[5] Also referred to as 'participation' (Young 2011, 106), 'passive support' (Young 2011, 81, 87) or 'connection' (Young 2011,106-107).

[6] Here all C and H are individuals.

[7] Schiff (2013) criticises Young's account of power as 'thin and instrumental' for not considering the complex ways that different types of power (and agency) can arise from structural processes.

allocated political responsibility, and some individuals are allocated political responsibility that is almost impossible to discharge. In the next sub-section, I will focus on the first problem, and employ Haslanger's discussion of social structures to bring out some of the subtleties in an individual's position that challenge the C-H Relation.

S2.1. Haslanger's Analysis of Social Structures

Haslanger (2015, 415) describes social structures as having two dimensions: schemas and resources. Schemas are virtual patterns of thought and behavior that provide scripts and constraints for agents in their interactions with each other and their environment. Resources are defined as the material objects, actions, and knowledge that actualize these schemas and give them a material dimension.

Young (2011, 56) describes the tendency of individuals to 'reify' structural processes; to see them as unchangeable and objective. Haslanger (2015, 3) provides a more detailed account of how this comes about, through the ability of schemas and resources to reinforce each other and the tendency for individuals to reproduce these reinforced structures. Her analysis also draws attention to an important difference between contributors and harmed-contributors. Consider the following scenario:

> Two island nations, called Helios and Ogygia, rely heavily on fossil fuels. Their industries and infrastructure are set up to use coal and crude oil. Both have been emitting similar amount of GHGs for a similar period of time. Grocery shops sell food in plastic bags, electricity is produced in coal-fired plants, petrol cars are common, and there are only minimal recycling policies in place. Most residents of Helios and Ogygia use fossil fuels, do not recycle, and consider this to be normal.
>
> Since neither are large nations, Helios and Ogygia do not make up a significant portion of global emissions. They are also both middling in terms of per-capita emissions when compared to other nations.
>
> For the past twenty years, Helios has been experiencing severe hurricanes and tornadoes. As a result, its income from tourism and its crop yields have radically decreased, and Helios is having trouble remaining economically afloat. There is significant evidence that the hurricanes and tornadoes are due to human-induced climate change. Meanwhile, Ogygia, has a comfortable, stable climate. Crops grow well, it gets a lot of income from tourism, and its economy is booming.

In the above example, the resources that residents of Helios and Ogygia have access to, like petrol cars and plastic bags, reinforce the schemas that normalize GHG emitting behavior. The schemas involved are those of aspiring to

high living standards and economic progress/profit, regardless of the environmental cost. The residents of Helios and Ogygia themselves reproduce these schema-resource structures through their everyday actions, for example basing choices on what is easy, profitable, or efficient, reifying the structural process and making the emission of GHGs appear normal and unchangeable.

However, despite both contributing to GHG emissions, there are significant differences between residents of Helios and residents of Ogygia. Helios is a harmed-contributor, while Ogygia is an unharmed-contributor. This results in the two islands having different policies available to them; Ogygia can use its economic wealth to shift its industries to rely on renewable fuel, while Helios cannot. Young's allocation of responsibility, purely based on contribution, fails to make this subtle distinction between Ogygia as a contributor and Helios as a harmed-contributor.

In the next sub-section, I will examine three other examples that highlight similar issues in more detail. I will argue that the social connection model is not subtle enough to take into account the specific social-structural positions of agents, fails to attribute responsibility in certain circumstances when it should and attributes responsibility that is impossible to discharge.

S2.2. Considering Agents

1. Innocent, moderately powerful agents

Some individuals contribute only a negligible amount to the global structural processes that give rise to climate change, but for certain reasons have moderate levels of agency. Currently, rural Fijians fit this description.

As a country, in combination with many others, Fiji makes up a vanishingly small amount of emissions.[8] Young does not give clear conditions for what counts as enough of a 'contribution' to structural processes to give rise to responsibility. But if viewed in these terms, based on their almost non-existent emissions, it is unlikely that individual Fijian's would be considered contributors (Moore 2013, 37). Nevertheless, the Fijian government has used the agency they have to open Fiji's borders to members of other islands if their homes are destroyed by rising sea levels, something which no other country has done (Weiss 2015).

[8] Fiji emitted 2.9MT in 2010. The USA emitted 6.1GT. There is an even larger difference between their cumulative historical emissions. See: https://www.climatewatchdata.org.

Although not as powerful as larger countries, in virtue of their proximity to these islands, Fiji can be seen as having moderate power in preventing an unjust state of affairs (individuals on sinking islands becoming stateless).

Consider the following case: a family that lives in a rural part of the island who are not currently under the poverty line. As a result of the Fijian policy to take in refugees from other Islands that are sinking, they allow a person from another island to live on or near their land. This involves the rural family and wider community working together to re-structure the allocation of land in their area of the island. This would be an instance of the family taking political responsibility due to their moderate amount of agency (being close to the sinking islands, having the means to take on an extra person, the inaction of other states), despite hardly contributing to structural processes.

It intuitively seems like the Fijian family has a political responsibility to take on the extra person or to organize with other members of the community to make space for another person. A model grounded in agency would allocate political responsibility to the family/community, while one grounded in the *C-H Relation* would not.

One possibility for the Social Connection Model is to say that the rural Fijians are in fact contributors, despite their minimal emissions, and therefore allocate responsibility to them. However, if extended to all minimal pollutants like the rural Fijians, the *C-H Relation* would allocate the same level of responsibility to almost everyone on earth (since individual pollutants do not get much lower than the Fijians), as Young defines responsibility as something that should be divided equally between all contributors. This is too wide and coarse-grained of an allocation of responsibility to be useful.

2. Almost innocent, powerful agents

Some individuals could have a lot of power to mitigate the climate crisis without being significant contributors. Consider a scientist who for her whole life has been careful to not let her carbon footprint go over the level that is required to be a contributor to climate change. She runs a lab in New Zealand (a low per-capita pollutant) that has been similarly careful. She and her scientific community have discovered a chemical synthesis that will significantly help mitigate current emissions.

Intuitively, having sufficient agency seems to be enough to give these scientists in New Zealand a responsibility to use their research and organize to help mitigate the climate crisis despite their lower contribution.

According to Young's social connection model, which is grounded in the *C-H Relation*, the scientists would not have a political responsibility to mitigate the climate crisis, as they have not really contributed. However, if political responsibility were grounded in agency, political responsibility would be allocated to these individuals. The allocation grounded in agency seems much more intuitive, and in-keeping with the conceptual focus that political responsibility has on rectification.

Indeed, Young's grounding of political responsibility in contribution seems like an appeal to a principle of fairness: that it would be unfair for a collection of individuals to bear the burden of mitigating climate change if they have not contributed to it. However, when the climate crisis is considered, the principle of fairness is outweighed by other concerns.

Karenin (2014, 607) makes a useful distinction between an individual's responsibility to their co-responsibility bearers, and to the third party that is owed responsibility. In the case of the climate crisis, the moral weight of the potential harms to the third party (permanent harms to all life on earth) in this case outweigh the moral weight of fairness between countries and organizations.

To emphasize this point about fairness, a parallel can be drawn between the climate crisis and a large meteor strike. Both will irreversibly change the climate (although the meteor is likely to have added damage to a particular area). In the case of the meteor strike, it seems clear that nations and organizations have got their values wrong if they argue about fairness or equal distribution in mitigating or preventing the meteor strike. The countries with the ability to do so have a responsibility to prevent the meteor strike and take up the slack if other countries default. The climate crisis is occurring on a much slower scale; however, the damages are similar in many ways, and the same principles of agency as primary should be employed.

3. Not so innocent, powerless agents

Agents in this group would be people living under the poverty line in the US. They are likely to be fairly significant polluters, using inefficient central heating, plastic, maybe an old petrol car. However, it doesn't seem like responsibility should fall on them in virtue of their contribution alone, as they are constrained by poverty.

Recall Young's (2011, 125) description of political responsibility as 'something all contributors bear and should not try to divide and measure.' Using the *C-H Relation*, impoverished agents would be allocated the same

amount of political responsibility as other more able agents. However, due to their lack of agency, they will be far less able to use the four parameters of agency, (power, privilege, interest, or collective ability) to discharge this responsibility. This is also a problem based on the values built into Young's account. In Young's account, after the allocation of political responsibility based on contribution, the four parameters of agency (mentioned in Section 1) are used to allocate the actions required of an individual. However, enabling action and rectification of injustice is what political responsibility itself, by definition, wants to do. It seems like the political responsibility determined by contribution is not doing much here, even by the standard of Young's account itself.

This identifies the third problem with the *C-H Relation*; the 'not so innocent, powerless agents' will be allocated political responsibility that is almost impossible to discharge. Furthermore, when the climate crisis is considered in general, there will be increasingly large numbers of individuals in this position in the future. Before a certain point in time, most or some agents are only contributors to the climate crisis, while after a certain point in time all agents will be both harmed and contributors to that very harm. This leads to an impasse in terms of mitigating the climate crisis: as harmed-contributors tend to have less agency, it would be even more difficult for them to rectify or prevent further harms from happening to them.[9] If these contributors are allocated responsibility, as they would be in Young's model, their responsibility would also be impossible to discharge. If responsibility was allocated to individuals based on agency rather than contribution, this problem could be avoided.

S3. Agency and the Prevention Model

As previously stated, there are reasons to move away from the *C-H Relationship* when considering responsibility for the climate crisis. Firstly, having contribution as a basis does not distinguish between contributors and harmed-contributors. It also fails to allocate responsibility to individuals who intuitively seem to have responsibility, and it can lead to responsibility that is impossible to discharge. In this section, I will attempt to give a positive account of political responsibility allocated based on agency. First, I will say some more about the position of agency within social structures.

[9] This is accentuated by the fact that climate change is a threshold problem.

S3.1. More on Agency within Structures

Agency and responsibility are closely linked concepts. Agency can be further analyzed into internal and external agency, with external agency being the physical actions one is capable of doing, and internal agency being the courses of action of one is capable of realistically envisaging oneself doing. Resources place constraints on external agency while schemas place constraints on internal agency. Different structural injustices will place constraints on external and internal agency to differing extents. However, within a structure's tendency to reproduce there is also some potential to use agency to bring about change. Sewell (1992, 4) states:

> If enough people or even a few people who are powerful enough act in innovative ways, their action may have the consequence of transforming the very structures that gave them the capacity to act.

This has clear consequences for an account of responsibility. Indeed, the combination of agency and structural injustice can be seen as what gives rise to responsibility. Agency and responsibility also work to reinforce each other. A model of responsibility can increase an individual's internal agency, as it gives a concrete direction in which they can channel their agency. Once this more concrete conceptual direction is established, it could also make an individual aware of specific aspects of their external agency. For instance, going back to the two islands mentioned previously, Ogygia and Helios, awareness of responsibility may make them aware of their ability to organize with others—residents of Ogygia could start a petition to prevent the use of plastic bags.

S3.2. The A-H Relation

Agency is a good candidate for allocating political responsibility, as it has a more immediate relation to an individual's ability to act to change processes that give rise to structural injustice.[10] Similarly, the aspect of Young's political responsibility as the responsibility to rectify injustice is also closely linked to agency, as agency is more important than contribution in determining a person's ability to rectify injustice.

Therefore, the *A-H Relation* is a better distinction to use when allocating political responsibility:

[10] Scheffler (2003) endorses an account of responsibility based on individual agency.

A-H Relation: Where H are the agents harmed, and A are the unassociated individual agents who possess the relevant agency to transform structural processes.

If agency were the grounds for political responsibility, a large amount of political responsibility would be allocated to the scientists in New Zealand, some would be allocated to the Fijian family, and far less would be allocated to impoverished Americans. These three cases suggest that agency should be the primary consideration when allocating political responsibility. While in many cases of structural injustice contribution and agency will overlap, these three groups of agents demonstrate that this is not always the case. Therefore, when speaking about cases of global structural injustice like the climate crisis, a better way of grounding responsibility is the *A-H Relation*. Next, I am going to propose a specific model that applies the *A-H Relation*.

S3.3. The Prevention Model

PM: iff 1) an unjust state of affairs S is an outcome of structural processes and 2) A v A v … v A_n could contribute to the prevention of S and 3) this contribution to the prevention of S does not involve excessive cost to any particular A, then agents A v A_1 v … v A_n have a political responsibility to transform structural processes in order to prevent unjust state of affairs S.

By using political responsibility as a normative framework, this model still possesses three essential features of political responsibility: being forward-looking, held by an individual, and shared. The focus on 'prevention' (as opposed to rectification in Young's account) intends to be a focus on a future state of affairs. This avoids some of the issues that come with ascribing responsibilities to future agents. A 'state of affairs' includes species and ecosystems, which is relevant to the harms given rise to by the climate crisis. It is also more in line with how international climate crisis policy is adopted. Due to recent improvements in climate modeling, there is a much clearer sense of the harm that we are responsible to prevent. For instance, the focus of the Paris Agreement was to prevent a rise in temperature above 2°C (essentially to prevent a certain state of affairs). Lastly, focus on a state of affairs allows for political responsibility with a single aim, which would help enable agency.

'Excessive cost' is a limiting factor on an agent's responsibility to contribute to prevention. This takes into account more subtle features of an individual's situation and type of agency, as it varies from agent to agent what

would count as excessive cost.[11] It is also an empirical question to a certain extent. For instance, the Fijian family should not take an extra member, or re-organize their land to do so, if it would push them below the poverty line.

While the social connection model would attribute political responsibility in line with the *C-H Relation* in the three cases above, the prevention model would attribute political responsibility in line with the *A-H Relation*. The latter attribution is favorable because it offers more intuitive attributions of political responsibility in the first two cases and it does not allocate political responsibility that is almost impossible to discharge in the third case.

As a final note, with Haslanger and Sewell's account of structure in mind, a more detailed specification of political responsibility for the climate crisis can be given. The specific political responsibility of many individuals (who do not have sympathetic governments like Fiji) is to organize to influence governments and corporations to transform resources. This would involve exercising external agency.

Many individuals who continue to reproduce the structural processes that give rise to the climate crisis already have internal agency: they are aware of the fact that the climate crisis is occurring and have some awareness of the economic-progress and high-standard-of-living schemas that guide this, even if they would not articulate it in these terms.[12] The problem is therefore more likely to be located in the resource dimension; the fact that the resources to act in ways that do not reproduce these structures are unavailable. This suggests that Young's second type of political responsibility, to organize to influence government and corporate policy is the more pressing aspect of political responsibility to be taken up. I have argued that this specific political responsibility should be allocated to individual agents based on their degree of agency.

A purely forward-looking model of responsibility, such as the prevention model is controversial for not acknowledging climate debt. However, due to the climate crisis being a threshold problem, allocating responsibility based on agency to prevent a certain state of affairs perhaps outweighs these considerations (Pickering, Barry 2012, 667).

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[11] The idea of excessive cost as a limiting factor is taken from Jameson's (2015, 38) 'Intervention Model.'

[12] For instance, using the UK as a case study: 95% of adults in the UK think that the climate crisis is at least partly due to human activity. 35% think it is mainly due to human activity (Phillips *et.al.* 2018).

Conclusion

The framework of global structural injustice is particularly useful for analyzing the climate crisis. Young's concept of political responsibility is more appropriate to the specific features of structural injustice than other concepts of responsibility. However, Young's grounding of political responsibility in the *C-H Relation* runs into problems when more subtly implicated agents are considered. This is in turn a problem for her social connection model. As a result, in the case of the climate crisis, the *A-H Relation* and PM are a better way to allocate responsibility. This is because grounding political responsibility in the *A-H Relation* takes into account the subtleties of the position of an individual in the structural processes that give rise to the climate crisis.

Bibliography

1. Arendt Hannah (1994), *Eichmann in Jerusalem: A Report on the Banality of Evil*, New York: Penguin.
2. Barry Christian and Ferracioli Laura (2013), "Young on Responsibility and Structural Injustice", *Criminal Justice Ethics*, 32, pp. 247-257.
3. Caney Simon (forthcoming), "Distributive Justice and Climate Change", [in:] S. Olsaretti (ed.), *Oxford Handbook of Distributive Justice*.
4. Cudd Anne E. (2006), *Analysing Oppression*, Oxford: Oxford University Press.
5. Climate Watch: "Fiji, U.S. Washington, DC: World Resources Institute, 2018", [online] https://www.climatewatchdata.org [accessed: 12.03.2019].
6. Fricker Miranda (2007), *Epistemic Injustice: Power and the Ethics of Knowing*, Oxford: Oxford University Press.
7. Haslanger Sally (2012), *Resisting Reality: Social Construction and Social Critique*, Oxford: Oxford University Press.
8. Haslanger Sally (2015), "Distinguished Lecture: Social structure, narrative and explanation", *Canadian Journal of Philosophy*, 45, 1, pp. 1-15.
9. Jamieson Dale (2015), "Responsibility and The Climate Crisis", *Global Justice: Theory Practice Rhetoric*, 8, 2, pp. 23-42.
10. Karnein Anja (2014), "Putting Fairness in its Place: Why There is a Duty To Take Up The Slack", *The Journal Of Philosophy*, 11, pp. 593-607.
11. Levy Marc (2014), "Trends in Climate Stress: Implications for Instability over the Coming Decade", Paper prepared for Political Instability Task Force conference, "Over the Horizon".
12. Moore Margaret (2013), "Global Justice and the Connection Theory of Responsibility", [in:] M. Johnson (ed.), *Political Responsibility Refocused*, Toronto: UTP, pp. 21-41.
13. May Larry and Strikwerda Robert (1994), "Men in Groups: Collective Responsibility for Rape", *Hypatia*, 9, 2, pp. 134-151.

14. Meyer Lukas H. and Roser Dominic (2010), "Climate Justice and Historical Emissions", *Critical Review of International Social and Political Philosophy*, 13, 1, pp. 229-253.
15. Okin Susan Moller (1989), *Justice, Gender and the Family*, New York: Basic Books.
16. Pickering Jonathan and Barry Christian (2012), "On the concept of climate debt: its moral and political value", *Critical Review of International Social and Political Philosophy*, 5, pp. 667-685.
17. Phillips D. Curtice *et al.* (2018), "The climate crisis: Social divisions in beliefs and behavior", *British Social Attitudes. The 35th Report, London: The National Centre for Social Research*, [online:] http://www.bsa.natcen.ac.uk/media/39251/bsa35_climate_change.pdf [accessed: 12.03.2019]
18. Scheffler Samuel (2003), *Boundaries and Allegiances: Problems of Justice and Responsibility in Liberal Thought*, Oxford: Oxford University Press.
19. Schiff J.L. (2013), "Power and Responsibility", [in:] M. Johnson (ed.), *Political Responsibility Refocused*, Toronto: University of Toronto Press, pp.42-62.
20. Sewell William H. (1992), "A Theory of Structure: Duality, Agency, and Transformation", *American Journal of Sociology*, 1, pp. 1-29.
21. Singer Peter (1972), "Famine, Affluence, and Morality", *Philosophy and Public Affairs*, 3, pp. 229–43.
22. Strawson Peter F. (1962), 'Freedom and Resentment', [in:] G. Watson (ed.), *Proceedings of the British Academy: Volume 48*, Oxford: Oxford University Press, pp. 1-25.
23. Vanderheiden Steve (2008), "Equity, Responsibility, and Climate Change Mitigation", [in:] *Atmospheric Justice: A Political Theory of Climate Change*, Oxford: Oxford University Press, pp. 222-258.
24. Weiss Kenneth R. (2015), "The Making of a Climate Refugee", *Foreign Policy*, [online:] https://foreignpolicy.com/2015/01/28/the-making-of-a-climate-refugee-kiribati-tarawa-teitiota/ [accessed: 12.03.2019].
25. Williams Bernard (1997), "Moral Responsibility and Political Freedom", *Cambridge Law Journal*, 56, pp. 96-102.
26. Young Iris Marion (2011), *Responsibility for Justice*, Oxford: Oxford University Press.
27. Young Iris Marion (2003), "Political Responsibility and Structural Injustice", *Lindley Lecture,* University of Kansas: University of Kansas Press.

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Karen Barad*

After the End of the World: Entangled Nuclear Colonialisms, Matters of Force, and the Material Force of Justice[1]

Abstract

This essay is an invitation to take up the nature and problematics of hospitality in its materiality. It begins and ends with the Marshall Islands, at the crossroads of two great destructive forces: nuclear colonialism and the climate crisis. In the aftermath of sixty-seven US nuclear bomb "tests" visited upon the Marshall Islands, the concrete "dome" built on Runit Island by the US government was an act of erasure and a-void-ance—an attempt to contain and cover over plutonium remains and other material traces of the violence of colonial hospitality that live inside the Tomb (as the Marshallese call it). Taking the physicality of the hostility within hospitality seriously, and going into the core of the theory that produced the nuclear bomb, I argue that a *radical hospitality*—an infinity of possibilities for interrupting state sanctioned violence—is written into the structure of matter itself in its inseparability with the void.

> How shall we remember you?
>
> You were a whole island, once. You were breadfruit trees heavy with green globes of fruit whispering promises of massive canoes. Crabs dusted with white sand scuttled through pandanus roots. Beneath looming coconut trees beds of ripe watermelon slept still, swollen with juice. And you were protected by powerful *irooj,* chiefs birthed from women who could swim pregnant for miles beneath a full moon.

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> Then you became testing ground. Nine nuclear weapons consumed you, one by one by one, engulfed in an inferno of blazing heat. You became crater, an empty belly. Plutonium ground into a concrete slurry filled your hollow cavern. You became tomb. You became concrete shell. You became solidified history, immoveable, unforgettable.
>
> From the poem "Dome Poem Part III: Annointed" by Kathy Jetñil-Kijiner[2]

At the core of Quantum Field Theory, a theory of nature's transience, is the radical undoing of the separation between being and nothingness. Time is out of joint. It is diffracted, broken apart, exploded, scattered in multiple directions. Each moment is an infinite multiplicity where other moments are here-now in particular constellations. "Now" is not an infinitesimal slice, but an infinitely rich condensed node in a changing field diffracted across spacetime (Barad 2017a).

The Dome

Let us begin at the "end." With an island that has been given the colonializing title "the end of the Earth."[3] Here we find a dome. This dome has been dubbed both the "most toxic place on Earth" and an "Edenic paradise." Here at the crossroads between nuclear and climate catastrophes is the end of the time… and the beginning.

The dome is located in the Marshall Islands, on a chain of islands called Enewetak Atoll. Few Americans have heard of Enewetak, though some recall something about Bikini. Bikini Atoll is associated in the American imagination, if it is at all, with the "first and only" thermonuclear bomb test—but it was neither the first nor the only one. The particular thermonuclear or hydrogen bomb test that got so much fanfare was 1000 times the size of the bomb dropped on Hiroshima. The eerie sci-fi cloud of the Bravo test lingers, though the fact that it was one of 23 nuclear bombs exploded at Bikini has long faded. It's not that the 67 nuclear and thermonuclear bombs that the US detonated on the Marshall Islands between 1946 and 1958 have been kept secret; on the contrary, unlike the Manhattan Project, much was

[2] This poem and the two other dome poems can be found on Kathy Jetñil-Kijiner's website: https://www.kathyjetnilkijiner.com/dome-poem-iii-anointed-final-poem-and-video/. I thank her for her kind permission to use her remarkable video performance of her powerful poem in my talk.

[3] On the myth of islands, that is, "island laboratories" as isolates, see Elizabeth M. DeLoughrey (2012).

made of this Cold War spectacle that turned the island nation into a laboratory and display case for flexing military muscle. But the extent of the violence and the ongoingness of what Winona LaDuke calls "radioactive colonialism" is one of the few things radioactive that has not been absorbed; or rather, like other forms of colonialism, the temporality of radioactive colonialism is not of a past that is passed, or even decays with time, but rather, an ongoingness that is present; and at the same time, as it were, the particularity of its nuclear nature is such that it has already colonized the future as well, making evident that nuclearity in its specificity radically scrambles, if not disassembles, the imperialist universalizing sequentiality of past-present-future (LaDuke, Churchill 1985).

The majority of the 67 nuclear bombs, 43 of them, were exploded on Enewetak. Four of Enewetak's 40 islands were completely vaporized by thermonuclear bomb tests. Two thermonuclear blasts each left two-kilometer wide craters on the edge of Runit Island. In the late 1970s, the US government, in the process of washing its hands of the radioactive mess they left in the Marshall Islands, did a rudimentary "clean up." Four thousand US servicemen were deployed to the Marshall Islands to do the dirty work, which included putting hundreds of pieces of plutonium, the debris of a detonation gone wrong, into plastic bags and throwing them into the crater, along with other nuclear debris from the tests. This constituted a "cleanup" of approximately 0.8 percent of the total radioactive waste. The servicemen had no protective gear or education about handling nuclear waste. The crater, which is made of coral, a very porous material, was then covered over by a dome of concrete.

Alson Kelen, climate change activist, master navigator and shipbuilder, founder and director of Waan Aelõñ in Majel, former mayor of Bikini Atoll, President of the Council of NGOs, and member of the National Nuclear Commission, points out that the dome sits at a juncture, a crossroads between two great destructive forces: "The dome," he says, "is the connection between the nuclear age and the climate change age" (Kelen 2017).[4] For the Marshall Islands are at the leading edge of climate change. A 60-centimeter increase in sea level by the end of the century may inundate three-quarters of the country. According to USGS data, many atolls in the Marshall Islands will be uninhabitable within decades.

[4] Full quotation: "*That dome is the connection between the nuclear age and the climate change age. It'll be a devastating event if it really leaks. We're not talking just the Marshall Islands, we're talking the whole Pacific Ocean*—Alson Kelen, Marshallese community leader." Many thanks to Thom van Dooren for pointing out the numerous titles held by Mr. Kelen.

In a 2014 *New York Times* editorial, "A Pacific Isle, Radioactive and Forgotten," Columbia University climate change scholar Michael Gerrard, writes:

> A task force of the federal government's National Research Council warned in 1982 that the dome might be breached by a severe typhoon. But a 2013 report sponsored by the [U.S.] Department of Energy saw no reason to worry. 'Catastrophic failure of the concrete dome,' it said, 'and instantaneous release of all its contents into the lagoon will not necessarily lead to any significant change in the radiation dose delivered to the local resident population.' The reason, according to the report, was that the radiation inside the dome was 'dwarfed' by the radiation in the sediments in the lagoon. Thus a leak from the dome would be *no added threat because it is dirtier on the outside than the inside* (Gerrard 2014, emphasis mine).

Gerrard continues:

> Runit dome embodies injustices in many ways. The fact that all these weapons were exploded there, the fact that this plutonium was left behind, the fact that the [US military] workers who worked there [to clean up a failed plutonium bomb] have not been compensated, and very importantly the fact that the entire nation is endangered by sea level rise which is caused mostly by the greenhouse gas emissions of the major emitting countries of which the US was historically number one. These are an accumulation of injustices (ibidem).

We might add to Gerrard's list: the fact that the Marshallese have suffered and continue to suffer from very high rates of cancer as a result of radioactive fallout; the fact of severe birth defects, that Marshallese women have given birth to "jellyfish" and "grapes" as they themselves have described it;[5] the fact that the Marshallese have the second highest rates of type 2 diabetes in the world as a result of eating Spam and other canned foods for decades after being told that the fish and fruits of their islands were too contaminated to ingest; and the fact that the Marshallese, who have been allowed by the Compact of Free Association (COFA) Treaty to move to the US and work without green cards, and without being granted citizenship, are currently the most impoverished ethnic group in the United States.

[5] "The most common birth defects… have been 'jellyfish' babies. These babies are born with no bones in their bodies and with transparent skin… Many women die from abnormal pregnancies, and those who survive give birth to what looks like purple grapes, which we quickly hide away and bury." This quote is attributed to Marshall Islander Lijon Eknilang who appeared before the International Court of Justice (ICJ) in The Hague in November 1995 (Cohen 2010; see also Rose Johnston & Barker 2008, 14-15, 130, 144, 147). Johnston and Barker explain that, "If these reproductive problems had existed before the testing program, they would have had proper Marshallese names, as do other illnesses…" (Rose Johnston & Barker 2008, 147).

The Politics of Matter, the Matter of Politics

Matter fell from grace during the twentieth century. It became mortal. Very soon after that it was murdered, exploded at its core, torn to shreds, blown to smithereens. The smallest of smallest bits, the heart of an atom, was broken apart with a violence that made the earth and the gods quake. In an instant, in a flash of light brighter than a thousand suns, the distance between Heaven and Earth was obliterated. J. Robert Oppenheimer, lead scientist on the Manhattan Project, remembers marking the moment by reciting a verse from the *Bhagavad Gita*: "Now I am become death, the destroyer of worlds."[6]

There was a time when matter stood outside of time. But in the intervening years between the two world wars, physicists broke with a more than thousand year-old tradition, inherited from the Greeks, and placed matter in the hands of time. Quantum field theory (QFT)—a mixture of quantum theory, relativity, and field theory—was responsible for this radical change in the order of things.

Physicists began working on QFT starting in the late 1920s, but quickly ran into difficulties—most seriously, the so-called "infinities problem," which was not resolved before the war. The war effort interrupted the development of the theory, at least in the West, because many of the same physicists who were hard at work on QFT were called on to work on and take the lead on the development of new military technologies. This is not a coincidence. Nuclear physics developed alongside and inside—with-in—QFT, and many of the top physicists around the world were working on QFT and nuclear physics. Skills, techniques, approaches to cracking hard problems, and more, were traded back and forth between military research and the most abstract efforts in physics. In significant ways, the war effort for physicists around the globe, was continuous with work in "pure" theoretical physics; or more precisely, it was dis/continuous in a problematizing of the

[6] This translation is J. Robert Oppenheimer's. Oppenheimer was the lead scientist on the Manhattan Project. The story that has been widely shared is that he uttered this verse upon seeing the first atomic bomb test. This is contested. (Thanks to Liz DeLoughrey for pointing this out.) In any case, Oppenheimer did say the following in a 1965 TV Broadcast: "We knew the world would not be the same. A few people laughed, a few people cried. Most people were silent. I remembered the line from the Hindu scripture, the *Bhagavad Gita*. Vishnu is trying to persuade the Prince that he should do his duty, and to impress him, takes on his multi-armed form and says, 'Now I am become Death, the destroyer of worlds.' I suppose we all thought that, one way or another." From TV clip available online as "J. Robert Oppenheimer: 'I am become Death, the destroyer of worlds'" (Opphenheimer).

assumed discontinuity or dichotomy between continuity and discontinuity.[7] Tracing the entanglements of the construction of a quantum field theoretical account of nature and the development of a weapon that unleashed nature's fury goes to the core of this project. For now, I focus on exploring the radical possibilities that exist inside the theory for exploding the structures of violence that not only resulted from the theory but were integral to the practice of theorizing. If quantum physics provides useful conceptual tools for understanding the politics of matter and the matter of politics in the "nuclear age," it is in part because quantum physics and the atom bomb are directly and profoundly entangled: the theory and the bomb inhabit and help constitute each other. Just like the ontology (hauntology) it suggests, quantum theory is shot through with the political.

Quantum Field Theory: Life and Death, Time-Being, and the Structure of Nothingness[8]

During this period, the nature of time and being were together remade. No longer an independent parameter relentlessly marching forward into the future, time is neither a continuum nor a series of discrete moments that follow in succession. Time is diffracted, imploded/exploded in on itself: each moment made up of a superimposition of all moments (differently weighted and combined in their specific material entanglement). And directly linked to this indeterminacy of time is a shift in the nature of being and nothingness.[9]

Newtonian physics subscribes to the Democritean notion that nature has but two elements—atoms and the void. In classical Newtonian physics, the void, is mere nothingness—it is that which literally doesn't matter. The void provides a backdrop against which that which matters—namely,

[7] Given the troubling of dichotomies—that is, the act of cutting into two in the making of binaries—in agential realism, I regularly use a slash to signify the limit of the limit: the intra-active "cutting together-apart" between terms on either side of the slash. So for example, "dis/continuity" is to be understood as a short-hand for the reworking of the usual dichotomous or discontinuous distinction between "continuity" and "discontinuity" (see especially, Barad 2010).

[8] The next two sections draw on my previous work on explicating QFT (e.g., see Barad 2017b).

[9] Note that my interpretation of the energy-time indeterminacy principle is consistent with my interpretation of the indeterminacy principle for position-momentum (Barad 2007). Notably, this differs from some other interpretations. For further justification, see Karen Barad, *Infinity, Nothingness, and Justice-to-Come* (Barad, forthcoming).

matter—can be mapped in space and time; where space and time are absolute—universal fixed homogenous coordinates that have their existence independently of all matter, and of each other. And matter, discrete bits of substance, are immutable. These bits can move about, and change their motion according to the application of forces that are external to the bits of inert matter. Newton's equations are designed to account for their motion. Motion unfolds predictably against the backdrop of absolute space, while time marches forward without regard for anyone or anything. In this way, the very nature of change is theorized as matter in motion, where the movement is determined by the whims of external forces.

Twentieth-century physics challenges these notions of space, time, matter, and the void. According to quantum field theory, matter is not some given that pre-exists its interactions, and, the void is not determinately empty. Indeed, matter is always already caught up with the in/determinate dynamics of the no-thingness of the void. At the core of quantum field theory is the indeterminacy of time-being, and this gives rise to the fact that nothingness is not empty, but on the contrary, it is flush with the dynamism of the in/determinacy of time-being, the play of the non/presence of non/existence. As a result of a primary ontological in/determinacy, the void is not nothing (while not being something), but rather a desiring orientation toward being/becoming, innumerable imaginings of what might yet be/have been. Nothingness is material (even) in its non/presence.

So called "virtual particles" are the quanta of the in/determinate play of nothingness; they are and are not (there) as a result of the energy-time indeterminacy relation. Virtual particles are quantized indeterminacies-in-action. Virtual particles are not present (and not not present), but they are material. In fact, most of what matter is, is virtual. Virtual particles do not traffic in a metaphysics of presence. They do not exist in space and time. They are ghostly non/existences that teeter on the edge of the infinitely fine blade between being and nonbeing. Virtuality is admittedly difficult to grasp. Indeed, this is its very nature.

Virtuality is the material wanderings/wonderings of nothingness where every possible path is tested out. Virtuality is the ongoing thought experiment the world performs with itself. Indeed, quantum field theory tells us that the void is an endless exploration of all possible couplings of virtual particles, a "scene of wild activities."

The quantum vacuum is more like an ongoing questioning of the nature of emptiness than anything like a lack. The ongoing questioning of itself (and indeed, "it" and "self") is what generates, or rather is, the structure of noth-

ingness. The vacuum is no doubt doing its own experiments with non/being. In/determinacy is not the state of a thing but an unending dynamism.

The fact that the void is not empty, mere lack or absence matters. The question of absence is surely as political as that of presence. When has absence ever been an absolute givenness? Is it not always a question of what is seen, acknowledged, and counted as present, and for whom? The void—a much-valued apparatus of colonialism, a crafty insidious imaginary, a way of offering justification for claims of ownership in the "discovery" of "virgin" territory—the particular notion that "untended," "uncultivated," "uncivilized" spaces are *empty* rather than plentiful, has been a well-worn tool used in the service of colonialism, racism, capitalism, militarism, imperialism, nationalism, and scientism.[10]

QFT: A Touchy Subject, or the Finitude and Transience of Matter in its Infinite Un/doing

Birth and death, it turns out, are not the sole prerogatives of the animate world; so-called inanimate beings also have finite lives. "Particles can be born and particles can die," explains one physicist. In fact, "it is a matter of birth, life, and death that requires the development of a new subject in physics, that of quantum field theory. […] Quantum field theory is a response to the ephemeral nature of life" (Zee 2010, 3-4).

When it comes to quantum field theory, it is not difficult to find trouble—epistemological trouble, ontological trouble, a troubling of kinds, of identities, of the nature of touching and self-touching, of being and time, to name a few. It is not so much that trouble is around every corner; according to quantum field theory, it inhabits us and we inhabit it, or rather, trouble inhabits everything and nothing—matter and the void.

How does quantum field theory understand the nature of matter? *Pace* Democritus, particles do not take their place in the void; rather, they are constitutively inseparable from it. And, as we just saw, the void is not vacuous. It is a polyrhythmic structured nothingness, a dynamic play of the indeterminacy of non/being. The void, or what quantum physicists call the "vacuum," is an extravagant inexhaustible exploration of virtuality, where virtual particles are having a field day performing experiments in being and time.

[10] For a further elaboration of this point, see Barad "Troubling Time/s" (Barad 2017b).

Let us start with the electron, one of the simplest particles. According to classical physics, it is a point particle—a particle of zero dimensions and devoid of structure. Now, even the simplest bit of matter causes all kinds of difficulties for quantum field theory. For, as a result of time-being indeterminacy, the electron does not exist as an isolated particle but is always already inseparable from the unruly activities of the vacuum. In other words, the electron is always (already) intra-acting with the virtual particles of the vacuum in all possible ways.

For example, an electron will emit a virtual photon (the carrier of the electromagnetic force) and then reabsorb it. This possibility is understood as the electron electromagnetically intra-acting with itself: that is, touching itself, since touch is but an electromagnetic intra-action, and photons are the quanta of electromagnetic fields. Part of what an electron is, is its self-energy intra-action.

But this single exchange of a photon with itself is not a process that happens in isolation either. All kinds of more involved things can and do occur in this frothy virtual soup of indeterminacy that we ironically think of as a state of pure emptiness. For example, in addition to the electron exchanging a virtual photon with itself (that is, touching itself), it is possible for that virtual photon to enjoy other intra-actions with itself: for example, the virtual photon can metamorphose/ transition—change its very identity. For example, an electron can emit a virtual photon that then transforms into a virtual electron-positron pair, that subsequently annihilate each other and morph back into a single virtual photon before it is reabsorbed by the electron. (A positron is the electron's antiparticle—it has the same mass but the opposite charge and goes backward in time. Even the direction of time is indeterminate.) And so on.

This "and so on" is shorthand for an infinite set of possibilities involving every possible kind of intra-action with every possible kind of virtual particle it can intra-act with. That is, there is a virtual exploration of every possibility. And this infinite set of possibilities, or infinite sum of histories, entails a particle touching itself, and the particle that transmits the touch transforming itself, and then that touch touching itself, and transforming, and touching other particles that make up the vacuum, and so on, ad infinitum. An alchemical orgy of sorts! (Not everything is possible given a particular intra-action, but an infinite number of possibilities exists.) Every level of touch, then, is itself touched by all possible others. Particle self-intra-actions entail particle transitions from one kind to another in a radical undoing of kinds—queer/trans*formations or trans*mutations. Hence the electron is an

encounter with the infinite alterity of the self. *Matter is an enfolding, an involution, it cannot help touching itself, and in this self-touching it comes in contact with the infinite alterity that it is*.

What is being called into question here is the very nature of the "self," and in terms of not just being but also time. That is, in an important sense, the self is dispersed/diffracted through time and being.

Commenting specifically on the electron's self-energy intra-action, the physicist Richard Feynman, who won a Nobel Prize for his contributions to developing QFT, as well as being a chief scientist who helped engineer the Manhattan Project, expressed horror at the electron's monstrous nature and its perverse ways of engaging with the world: "Instead of going directly from one point to another, the electron goes along for a while and suddenly emits a photon; then (horrors!) it absorbs its own photon. Perhaps there's something '*immoral*' about that, but the electron does it!" (Feynman 1985, 115, my emphasis).[11] This self-energy/self-touching term has also been labeled a perversion of the theory because the calculation of the self-energy contribution is infinite, which is an unacceptable answer to any question about the nature of the electron (such as what is its mass or charge?). Apparently, touching oneself, or being touched by oneself—the ambiguity/undecidability/indeterminacy may itself be the key to the trouble—is not simply troubling but a *moral* violation, the very source of all the trouble.

The "problem" of self-touching, especially self-touching the other, is a perversity of quantum field theory that goes far deeper than we can touch on here. The gist of it is this: this perversity that is at the root of an unwanted infinity, that threatens the very possibility of calculability, gets "renormalized" (obviously—should we expect anything less?!). How does this happen? Physicists conjectured that there are two different kinds of infinities/perversions involved in this case: one that has to do with self-touching and another that has to do with nakedness. That is, in addition to the infinity related to self-touching, there is an infinity associated with the "bare" point particle, that is, with the metaphysical assumption we started with that there is only an electron—the "undressed," "bare" electron—and the void, each

[11] NB: My agential realist reading of QFT is not identical to Feynman's (here presented for a "general audience" not for the purposes of finding a rigorous interpretation of the theory) or any others, just as my agential realist interpretation of quantum mechanics is unique, and one of a number of (competing) interpretations of quantum physics. For more on my agential realist interpretation of QFT and my quantum field theoretical further elaboration of agential realism see Barad, *Infinity, Nothingness, and Justice-to-Come* (Barad, forthcoming).

separate from the other. Renormalization is the systematic cancellation of infinities: an intervention based on the idea that the subtraction of (different size) infinities can be a finite quantity. Perversion eliminating perversion.

The cancellation idea is this: the infinity of the "bare" point particle cancels the infinity associated with the "cloud" of virtual particles; in this way, the "bare" point particle is "dressed" by the vacuum contribution (that is, the cloud of virtual particles). The "dressed" electron—the electron in drag—that is, the physical electron, is thereby renormalized, that is, made "normal" (finite). (I am using technical language here, except for the bit about "drag"!) Renormalization is the mathematical handling/taming of these infinities. That is, the infinities are "subtracted" from one another, yielding a finite answer. Mathematically speaking, this is a *tour de force*. Conceptually, it is a queer theorist's delight. It shows that all of matter, matter in its "essence" (of course, that is precisely what is being troubled here), is a massive overlaying of perversities: an infinity of infinities.

To summarize, quantum field theory radically deconstructs the ontology of classical physics. The starting point ontology of particles and the void—a foundational reductionist essentialism—is undone by quantum field theory. According to QFT, perversity and monstrosity lie at the core of being—or rather, it is threaded through it. All touching entails an infinite alterity, so that touching the other is touching all others, including the "self," and touching the "self" is a matter of touching the stranger within. *Even the smallest bits of matter are an unfathomable multitude. Each "individual" always already includes all possible intra-actions with "itself" through all possible virtual others, including those (and itself) that are noncontemporaneous with itself. That is, every finite being is always already threaded through with an infinite alterity diffracted through being and time*. Indeterminacy is an un/doing of identity that unsettles the very foundations of being and nonbeing. The void in its dynamics of indeterminacy marks an interruption, an undoing of self: the outside—the void allegedly surrounding all matter—is constitutively inside matter "itself."

Of Hospitality

Questions of colonialism and hospitality are thoroughly entangled, and nuclear colonialism is no exception. At a time when Western countries, settled through invasion and colonization, are erecting fences and criminalizing refugees (people fleeing for their lives often as a direct result of violence perpetuated by first world countries unleashing war, colonialism, climate

change, and other harms against the refugees and their homelands), and hospitality itself is considered a crime (as in the recent sentencing of US citizens who left jugs of water in the desert for migrants attempting to cross the southern border of the US, the Spanish fireman who faces 20 years in an Italian prison for rescuing migrants at sea, and the Stansted 15 who were convicted for intervening in the forced return of refugees), evidence of the entanglement of colonialism and hospitality saturates the daily news. This phenomenon is not something new, but rather constitutes an ongoing violence that condenses around questions of hospitality and who is a welcome guest. And while the inclination to insist on absolute hospitality may be a ripe temptation, it is crucial that we remember that hospitality has also been a mechanism of invasion and conquest.

The rhetorics of hospitality were also part of the atmospherics of nuclear violence visited upon the Marshall Islands. In an important report on the fallout—the "hardship, pain, suffering, and… damages"—that resulted from the US nuclear weapons tests on the Marshall Islands, the authors of *Consequential Damages of Nuclear War: The Rongelap Report*, Barbara Johnston & Holly Barker write:

> *The Rongelap Report* tells the story of the myriad of changes that occur to a community whose lives and lands are heavily contaminated with radioactive fallout. In 1946, after evacuating the people of Bikini and nearby atoll communities in the Marshall Islands, the United States detonated two atomic weapons: the same type of bomb that was dropped on Nagasaki in 1945. In 1947 the United Nations designated the Marshall Islands a US trust territory. *Over the next eleven years, this US territory played host to another sixty-five atmospheric atomic and thermo-nuclear tests*. The largest of these tests, code named Bravo, was detonated on March 1, 1954. This 150megaton hydrogen bomb was purposefully exploded close to the ground. It melted huge quantities of coral atoll, sucking it up and mixing it with radiation released by the weapon before depositing it on the islands and inhabitants in the form of radioactive fallout (Johnston & Barker 2008, 15, 17, my emphasis).

This paragraph is dense with triggers. Just for starters, there is the stunning temporality of the establishment of this "trust" whereby the United Nations designates the US as trustee of the Marshall Islands after the US exploded two nuclear bombs there in 1946. But for now I'd like to focus on a phrase that stands out for its irony, and leaves the reader tripping at the threshold of its invitation to examine it further; the phrase is: "played host." It says: "Over the next eleven years, this US territory played host"! This is not insignificant phrasing! This "playing at being a host"—not being a host but "playing" at it—seems to point to a troubling of the legitimacy of

the "host." Indeed, it seems that it is in the nature of the idiom itself that "playing host" seems to call into question what constitutes (actually) being a host.

Tripping over the threshold of this phrasing we cannot not ask: Who is hosting whom here? Zooming out a bit but staying with this same uncanny sentence, what cannot go unnoticed is the horrifying nature of this particular welcome: "[T]his US territory played host to another 65 atmospheric atomic and thermo-nuclear tests." In other words, on a literal reading: the host was a territory given to one entity by another entity to whom it didn't belong. The territory in question was legally designated as belonging to the US, by an institution dealing in international law. Who, then, were the guests? They were, as we read, none other than "another 65" nuclear and thermonuclear bombs—talk about hospitality!

The idiom of "playing host" here, not only calls into question who it is that is doing the hosting (by proxy: the US), but also points to the performative nature of the ghastly repetitions of incalculable violence that constitute the "host" as such. Hence, the notion of "playing" at "hosting" harkens to the multiple and compounding injustices, or rather, a superposition of injustices that result from this so-called *hospitality*, including but not limited to the permanent uninhabitability, that is, the made-inhospitable nature of the very islands that were interpellated into this role.

Clearly the reference to this unconventional and explosive relationship of alleged "hospitality" or indeed, hostility—which, Derrida notes, is etymologically inside the very definition of hospitality—begs a very important question that takes us to the ethical core of relations among entities, whether individuals or nation states: What is the basis for "playing host"? What are the conditions of possibility for hosting? Does not the very notion of hosting, of being a host rather than playing host, already entail some privileged relation to not only place, but to a specific place where one welcomes guests? What, then, constitutes an ethical and just relation of hospitality?

Derrida's interrogation of the notion of hospitality takes as its core concerns the questions of politics and ethics. And yet, it remains to ask how hospitable Derrida's analysis of hospitality is to the situation at hand? To put it even more directly: Does Derrida trip over the threshold he sets between linguistic and physical forms of violence in his examination of nuclearity? What are we to make of his near exclusive focus on textuality that winds up eliding both the destructive force of physical violence and the possibilities of its interruption in their materiality? If we go to the core of the matter, to the very site of this destructive potentiality—literally, not metaphorically—

might we come to understand that the possibilities of a radical hospitality inhabit that destructive potentiality and are written into the very materiality of the world? Let's begin by reviewing some key aspects of Derrida's analysis.

Using a deconstructive analysis, Derrida demonstrates the aporia of hospitality (Derrida 1999; 2002; 2005a; 2005b). On the one hand, he argues, in offering absolute or unconditional hospitality the host gives up sovereignty—the exclusive authority over the place and its bodies, including the sovereign's—and becomes hostage to the guest who becomes the host's host (Westmoreland 2008, 7). Indeed, in the case of the Marshall Islands and other "tropical paradises," where hospitality is epitomized, extremized and exoticized, it this very tension between sovereignty and hospitality that is at issue and as Oceanist scholar Paul Lyons points out, under colonial relations it is the indigenous host who is under siege: "the greater the colonial impulse, the more such hospitality is recoded into settler/colonist's terms, or even turned into evidence against hosts regarded as amiable beyond their means" (Lyons 2006, 11; see also Williams & Gonzalez 2017).[12] And, furthermore, the difficulty is not solved by turning to conditional hospitality, for conditional hospitality both depends upon absolute hospitality as its condition of possibility and necessarily operates through exclusion, through the imposition of a limit in delimiting who is welcome where and when (that is, juridical considerations), thereby defying its own commitment to hospitality. As such conditional and unconditional hospitality are not oppositional, but rather simultaneously constitute and inhabit one another (Westmoreland 2008). Hence, the im/possibility of hospitality.

[12] The heart of Paul Lyon's essay is the ethico-political responsibility of non-native scholars to engage in "a shared understanding of hospitality" that "requires a recognition that ignorance rather than discursive proprietorship is the necessary and defining condition of the malihini, and that this entails both active listening and, giving the discursive history, introspection about motivations for researching and writing about the region at all" (Lyons 2006, 15, 14). It is noteworthy that this notion of hospitality entails responsibility on the part of the guest; as such it cuts against the grain of colonialist notions in very important ways. In this, my first attempt to bring attention to the historical and ongoing nuclear violences wrought against the Marshall Islands and its inhabitants, as well as those forced to leave, I recognize that this essay falls short in many ways and there is so much more I need to learn. My stakes are as follows. As a physicist, I am attempting to disrupt colonial practices of violence that are written into physics and to make available for decolonial practices ethico-political possibilities, especially in terms of relations to the other, in particular, relations of hospitality, through and in which the physics [of QFT] is constituted of which it speaks. Indeed, classical Newtonian physics' notion of the void, to cite one particular aspect, was a formative and enabling part of European modernity with which colonialism is imbricated. This is expanded upon in my forthcoming book.

Derrida makes an important distinction between questions of justice from those of law, aligning the former with unconditional hospitality and the latter with conditional hospitality (Derrida 2002; 2005c). He points out that hospitality figured in the classic or law-governed conditional sense, is always already a matter of violence and injustice. Derrida explains: "No hospitality, in the classic sense, without sovereignty of oneself over one's home, but since there is also no hospitality without finitude, sovereignty can only be exercised by filtering, choosing, and thus excluding and doing violence. Injustice, a certain injustice, and even a certain perjury, begins right away, from the very threshold of the right to hospitality" (Derrida 2002, 55). Hence, while the classic sense of hospitality raises vital questions of place and the relation to place as well as that of sovereignty, which are no doubt relevant, indeed, of critical importance here, Derrida warns about a kind of hostility, indeed violence, inside hospitality so conceived.[13]

At the same time, we might also wonder whether all acts of exclusion constitute a violence or a violation, and indeed, whether they are all of the same order of offense or have the same effect? Might it not be a violation, perhaps even a greater violation, to not allow for the possibility that some acts of exclusion might be enacted in the pursuit of justice-to-come rather than injustice? Decolonial refusals of hospitality as part of a politics of resistance to the ongoing violence of settler colonialism are one such possibility that must not be excluded from consideration (Williams and Gonzalez 2017).

These are large questions. Here I want to take up a particular aspect of this question of the multiplicity and differential force of various orders and kinds of violences and entertain the following question: Are not the acts of violence alluded to in the passage by Johnston & Barker, of a different order than those of which Derrida speaks? The fact that the authors' naming of acts of great physical violence as that of "playing host"—indeed, playing host to atom bombs!—refers to the *literal*, indeed, *material* blasting of place and sovereignty out of the water, thereby reveals the hostility of hospitality at its core in a way that the "exercise of force in language itself" does not touch (Derrida 2005c, 238).[14] If we follow Derrida on hospitality, he likens the

[13] Hostility is part of the etymology of hospitality. This is multiply in play in the case at hand. Importantly, hospitality is not only a modality in which colonialization is exercised (e.g., witness the coerced cooperation of the Bikinians), but another crucial aspect of this politics of hospitality is the colonization of the very notion of hospitality.

[14] It is not my task in this paper to make a case, in general, that for Derrida *force* is a very restricted term tied to a certain linguisticism, contrary to his stated interest in

important distinction between law and justice to that of conditional and unconditional hospitality, respectively. Unlike law, which is instrumentalized in terms of norms, interpretations, and calculations, "justice is the experience of the incalculable, of *having to calculate with the incalculable*: it is at play in those singular moments where we cannot determine the outcome or just decision in a given situation, not only because there is no given rule to be applied, but because the rules, in their very basis, are in question" (Sinnerbrink 2006, 489).[15] Justice is therefore always-to-come [*avenir*], which as Derrida emphasizes in "Force of Law," is not to say that we can therefore absolve ourselves from the responsibility to actively pursue justice; on the contrary, justice in the form of justice-to-come is an infinite pursuit, an ongoing ethical practice.

destabilizing the opposition between *nomos* and *physis*, that is, law and nature (e.g., positive law and natural law). It will suffice for my purposes here to point out a few important moments in the text that indicate the limited scope of his considerations. Significantly, at the beginning of his lecture on "Force of Law," Derrida insists that one must attend to the "risks of substantialism" by recalling the "differential character of force," which he says "is always a matter of differential force, of difference as difference of force, of force as différance or force of différance (différance is a force *différée-différante*); it is always a matter of the relation between force and form, between force and signification, of 'performative' force, illocutionary or perlocutionary force, of persuasive force and of rhetoric, of affirmation of signature, but also and above all, of all the paradoxical situations in which the greatest force and the greatest weakness strangely exchange places [*s'échangent estrangement*]. And that is the whole story, the whole of history" (Derrida 2005c, 234-5). Furthermore, one of his earliest points about injustice is (point B) the fact that he is forced to address himself in a language that is not his own, and he goes on to say: "At the beginning of justice there will have been *logos*, speech or language, but this is not necessarily in contradiction with another incipit, which would say, 'In the beginning there will have been force.' What must be thought, therefore, is this exercise of force in language itself, in the most intimate of its essence, as in the movement by which it would absolutely disarm itself from itself" (Derrida 2005c, 238). And furthermore: "The very emergence of justice and law, the instituting, founding, and justifying moment of law implies a performative force, that is to say always an interpretative force and a call to faith … the operation that amounts to founding, inaugurating, justifying law, to *making law*, would consist of a *coup de force*, of a performative and therefore interpretative violence…" (Derrida 2005c, 241). He then goes on to say: "Discourse here meets its limit—in itself, in its very performative power. It is what I propose to call here the *mystical*. There is here a silence walled up in the violent structure of the founding act; walled up, walled in because this silence is not exterior to language" (Derrida 2005c, 242). The notion of the void in this paper is distinct from Derrida's; it is not a mere limit to discourse.

[15] This quote is Sinnerbrink's translation of a quote in "Force of Law" (Derrida 2005c, 244).

Indeed, in this case, it is abundantly evident, explosively so, that law is not an antidote to injustices, that legal redress is not only not sufficient to block or address the harm, but on the contrary, *it is law itself* that is doing violence, but not merely by defining terms and giving interpretations (which is Derrida's focus), but rather, by a *legally sanctioned* power to apply a force so great that it actually vaporized islands, ultimately producing a form of dispossession and displacement we might call "nuclear refugeeism." This brings to the fore a crucial question: How hospitable is hospitality for addressing questions of violence, not merely the violence of choosing but the unleashing of the forces of nature? Indeed, these forces of violence are surely not of the same order, let alone of the same magnitude.

Ironically, Derrida's tendency to focus on linguistic forms of violence while eliding the violence of physical forces is perhaps no more blatantly evident than in his "No Apocalypse, Not Now," a text wherein he purports to directly address issues of nuclear weapons and nuclear war. Derrida not only seems blind[16] to the historical fact of "a continuous nuclear war" (Kato 1993; DeLoughrey 2009)—the exploding of more than 2000 nuclear weapons and nuclear colonialism, violence largely perpetuated upon indigenous lives and habitats—but he seems in this particular paper to have lost track of a *general textuality,* and in the name of "nuclear criticism" to be walled in by this academic form, and busy reinforcing an enclosure of representationalism where his concern is with the absolute destruction of literature, the archive, the name, and not the planet itself. (Indeed, Derrida's subtitle points to the structure of his paper with his substitution of "missile" with "missive": "No Apocalyse, Not Now [full speed ahead, seven missiles, seven missives]"). Derrida goes on for nearly a page with a diatribe about the unreality of nuclear war, about its singular existence as an anticipatory fantasy, thereby doing violence to the history and ongoingness of nuclear war and colonialism primarily visited upon indigenous lives and habitats worldwide:

> In our techno-scientifico-militaro-diplomatic incompetence, we [in the humanities] may consider ourselves, however, as competent as others to deal with a phenomenon whose essential feature is that of being *fabulously textual*, through and through. Nuclear weaponry depends, more than any weaponry in the past, it seems, upon structures of information and communication, structures of language, including non-vocalizable language, structures of codes and graphic decoding. But the phenomenon is fabulously textual also to the extent that, for the moment, a nuclear war has not taken place: one can only talk and write about it. …Unlike the other wars, which have

[16] I am not unaware of the ableist nature of this way of putting the point, but rather, I use it in this case to point to the materiality of the blinding violence of the bomb itself.

> all been preceded by wars of more or less the same type in human memory… nuclear war has no precedent. It has never occurred, itself; it is a non-event. The explosion of American bombs in 1945 ended a "classical," conventional war; it did not set off a nuclear war. The terrifying reality of the nuclear conflict can only be the signified referent, never the real referent (present or past) of a discourse or a text. …For the moment, today, one may say that a non-localizable nuclear war has not occurred; it has existence only through what is said of it, only where it is talked about. Some might call it a fable, then, a pure invention: in the sense in which it is said that a myth, an image, a fiction, a utopia, a rhetorical figure, a fantasy, a phantasm, are inventions. It may also be called a speculation, even a fabulous specularization. …a *nuclear war is for the time being a fable*, that is, *something one can only talk about*. …"Reality," let's say the encompassing institution of the nuclear age, is constructed by the fable, on the basis on an event that has never happened (except in fantasy, and that is not nothing at all, an event of which one can only speak… an invention also because it does not exist and especially because, *at whatever point it should come into existence, it would be a grand premiere appearance* (Derrida 1984, 23-24, my emphasis).

This paragraph, in its component parts, and in its entirety, is breath-taking.[17] I cannot not see-hear videos of the numerous nuclear weapons "tests" I've watched, overlaid upon the time-lapse video of the sequence of more than 2,000 nuclear explosions around the globe from 1945-1998, created by Japanese artist Isao Hashimoto when I read this.[18] What definition of war would preclude these events in their individuality, or certainly when taking account of the accumulated effects of more than 2,000 reiterations of these horrific acts of violence? Which one of these explosions did/does not have its casualties, if not in terms of human life (at least in the immediate aftermath) then to habitats, entire islands, animals, plants, and in time, to

[17] It is not without relevance that later in the article Derrida writes "Nuclear war has not taken place, it is a speculation, an invention in the sense of a fable or an invention to be invented in order to make a place for it or to prevent it from taking place (as much invention is needed for the one as for the other), and for the moment all this is *only literature… nuclear war is equivalent to the total destruction of the archive*" (Derrida 1984, 28, my emphasis). Ultimately, for Derrida, in his inquiry into the possibility of total nuclear war, what it comes down to is "the Apocalypse of the Name" (Derrida 1984, 31). If *general textuality* is to be understood as the world in its materiality, which some of us have argued, and not mere words on a page, then the deconstruction of nuclearity—indeed, not merely the matter of the force of law but also of the forceful unlawfulness of the alleged "law" of force (in particular, of nuclear forces)—has posed as something of a limit case for Derrida whose analysis here seems to undeniably pivot on textuality as literature. I want to acknowledge my conversation about this article with Daniela Gandorfer, and also thank her for a more detailed discussion of "Force of Law."

[18] Hashimoto's video is called "1945-1998", www.ctbto.org/specials/1945-1998-by-isao-hashimoto/.

human lives exposed to radiation? Derrida's anticipatory futurism is not only a denial of nuclear war in its ongoing and specific historicity, but it reiterates the violence of nuclear colonialism in its practices of erasure. "Anticipatory" comes as a shockwave upon the mind; it is not merely the wrong temporality, but an ironic spatial placement on a timeline that has been blasted to bits. To place the apocalypse before us, to think that it lies only in our imagination, that we are haunted by its possibility still unrealized, is to reiterate not only a very particular telling of time and history, but a particularly privileged "we," complicit in regimes of erasure.

Which brings us back around to the sentence we've been focusing on that has the "US territory" (sic) "playing host" to the guests—who are nuclear bombs. Surely this ironic turn of phrase is a purposeful displacement and grotesque distortion of the actual historical host-guest relationship entailed in what is also nothing less than a deep perversion of the notion of hospitality. For was it not the Marshallese people whose hospitality goes unmentioned and yet at the same time is forceably performed for the world in staged news reels made by the US Navy?[19] The Bikinians were "asked"—that is, *forced*—to leave their island "for the good of mankind," as the US Commodore Ben H. Wyatt "explains" in the recording. As Jeffrey Sasha Davis points out: "At the time of the Bikinians' removal, the US Navy and US media constructed the Bikinians as a primitive, nomadic people living in nature, who could legitimately be moved to any other 'natural' atoll. …This labeling of the atoll as 'natural' served to erase the social history of the Bikinian people in their place" (Davis 2007, 216).

So the question of hospitality is far from beside the point! And yet, it leaves us with the crucial question: How can we take account of the aporia of hospitality so that it can meaningfully address a situation such as this, where violence is not merely about "filtering, choosing, and thus excluding and doing violence" as Derrida argues in *On Hospitality* (2002, 55) but where a great force of nature has been unleashed? This is surely not to dismiss Derrida out of hand. Derrida's stakes in raising this question are quite high. It is in the context of his discussions of immigration, political asylum, statelessness, deportation, incarceration, refugeeism, xenophobia, and nationalism that Derrida asks if hospitality is possible and what it might mean. And surely these issues could not be more important at this current moment of time, robustly entangled, as they are, to nuclear and climate issues: we are

[19] MGM newsreel, "Bikini—The Atom Island" (1946), https://www.youtube.com/watch?v=zri2knpOSq.

here at the crossroads (as has so often been the case—indeed, when has it not?). And yet, we can see from this example that *the question of hospitality, if it is to constitute an accounting of the incalculability of justice, must be asked in relation to material nature of forces in their differential materiality, including those that literally blow apart worlds.*[20]

Quantum Physics and Entangled Relations of Response-Ability

Significantly, the Marshallese refuse the name "dome" and have named this concrete structure the Tomb. Tombs contains one's ancestors. This Tomb contains (and doesn't contain!) the future as well as the past. It marks an untimeliness, a time out of joint. The structure of this covered over "void," blasted into a "void," inside a "void" (as the colonists would have it) is a hauntology—an inheritance of practices of erasure and a-void-ance. This nothingness is flush with (al)chemical and nuclear wanderings, the infinite ongoing reiterative transformations, of time-being.

While hauntings are understood by some as one or another form of subjective human experience—the epistemological revivifications of the past, a recollection through which the past makes itself subjectively present—according to QFT, *hauntings are material.* They are the dynamism of the in/determinacy of time-being, constitutive of matter itself—indeed, of everything and nothing, in their inseparability. Hauntings, then, are not mere subjective rememberings of a past (assumed to be) left behind (in actuality), but rather, *hauntings are the ontological re-memberings, a dynamism of ontological indeterminacy of time-being in its materiality* (Barad 2017, 113).

Furthermore, as I have elaborated in a paper entitled "Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable" (Barad 2017b) which sets out to explore justice-to-come as a material set of im/possibilities with-in (*of*!) the world, what the world calls out for is an embodied practice of tracing the entanglements of violent histories (as can be seen in a diffractive reading of QFT with the time-hopping tale of a Nagasaki bomb survivor as told by Kyoko Hayashi in her novella *From Trinity to Trinity)*. In the face of colonial practices of erasure and a-void-ance

[20] I am indebted to Daniela Gandorfer and Zulaikha Ayub for our conversations about points made in this section of the paper. As Daniela Gandorfer emphasized: It is insufficient to draw a parallel or an analogy between hospitality and justice, or even to too quickly equate them through a transitive relation whereby both hospitality and justice are said to define or be equated with deconstruction itself. See her eloquent response to my paper at the Princeton Reading Matters Conference, Nov 2018.

(such as we also find in the histories, and ongoing lived realities, of violences that entangle Nagasaki to the indigenous lands of what is called the US Southwest), the pursuit of justice entails an embodied practice of re-membering—which is not about going back to what was, but rather about the material re-configurings of spacetimemattering in ways that attempt to do justice to account for the devastation wrought as well to produce openings, new possible histories/futures by which time-beings might yet have found/find ways to endure.

In my continuing project of working to bring forward the radical possibilities for living-being otherwise that are always already with-in quantum physics (itself), (which is not to deny the destructive possibilities to understand them as inhabiting one another), I have also written about quantum entanglements in relation to hauntological relations of inheritance. It is worth keeping these key points in mind concerning the material questions of justice when we turn our attention back to questions of hospitality in light of the insights we have learned about QFT:

> Only by facing the ghosts, in their materiality, and acknowledging injustice without the empty promise of complete repair (of making amends finally) can we come close to [hearing the silent speaking, the speaking silence of the ghosts]. The past is never closed, never finished once and for all, but there is no taking it back, setting time aright, putting the world back on its axis. There is no erasure [of past violences] finally. The trace of all reconfigurings are written into the [iterative] enfolded materialisations of what was/is/to-come. Time can't be fixed. To address the past (and future), to speak with ghosts, is not to entertain or reconstruct some narrative of the way it was, but to respond, to be responsible, to take responsibility for that which we inherit (from the past and the future), for the entangled relationalities of inheritance that 'we' are, to acknowledge and be responsive to the noncontemporaneity of the present, to put oneself at risk, to risk oneself (which is never one or self), to open oneself up to indeterminacy in moving towards what is to come. …Only in this ongoing responsibility to the entangled other, without dismissal (without 'enough already!'), is there the possibility of justice-to-come (Barad 2010).

Conclusion: Radical Hospitality and the Material Force of Justice

Let's return to the Dome: a slab of concrete covering over a void that was blasted into the midst of a "void." Or at least it (the latter "void") was a "void" in the eyes of the US government which viewed the Marshall Islands as "uninhabited or nearly so," an untouched paradise, marked as infinitely distant from the modern technological world in space and in time. Then there is the

void created by the denotation of a nuclear bomb—a crater, a bit of nothingness blasted into the "void" that is the island of Runit. A void within a void. And then there is the literal coverup: the pouring of concrete on top of the void, a conscious attempt at a-void-ance of responsibility following on the heels of the dumping of plutonium and other radioactive materials into the void. Uninhabitability inhabiting the uninhabited. A tomb inhabited by ghosts, material traces of the violence of colonial hospitality. The void as archive: the structured nothingness that is far from empty or de-void of meaning.[21] This covering over, this attempt to dress up the naked infinities of the layering of violence upon violence, the incalculable brutality of superpositions of nuclear and climate catastrophes, the effects of militarism, colonialism, nationalism, scientism, modernism, racism, and capitalism, speaks to the specific structures of nothingness in their entanglement; in this case, a void within a "void" at the "end of the Earth" (in space) that signals the "end of the Earth" (in time).

Colonialism often finds its justification in terms of the void—that which is deemed "uninhabited" and "uninhabitable"—with its alleged invitation to colonial habitation, or inhabilitability for the colonized, as the case may be—and the consequent a-void-ance of responsibility. Radioactive colonialism manufactured in the form of a structured nothingness—a nothingness alive with ghosts, an island "void" whose nonhuman inhabitants include pieces of a bomb that broke with its violent inheritance, by breaking itself apart rather than exploding on command (!), live inside the crater that its kin created.

Questions of co-habitation co-exist/co-habit with those of uninhabitability, a strange hospitality. Which brings us back around to the questions raised earlier: How hospitable is hospitality and its deconstruction for addressing questions of violence, not merely the violence of choosing, delineating, interpreting, and defining (on behalf of the law), but the great *physical* violence entailed in unleashing forces of nature?[22]

[21] I am indebted to Daniela Gandorfer for suggesting the additional point about the archive. She also adds that the conference on nuclear criticism which is the occasion for Derrida's "No Apocalypse" might be taking it that nothing is at stake (especially given the many times Derrida uses the word "nothing" and the instances in which this word occurs are noteworthy!), when the fact is that the very structure of nothingness cannot help being at stake.

[22] My analysis is not limited to nuclear forces, or even physical force; they could be so-called "social forces" or "political forces," for example—as if they were (somehow) ontologically distinct from each other and nuclear forces, which is precisely what is in question; in any case, in my analysis, forces are considered in their materiality. For one thing, QFT is not only about nuclear forces; rather, QFT is a general theory of forces and understands forces, in general, as quantum fields.

Derrida, in *Of Hospitality*, deconstructs the juridical, aka conditional, notion of hospitality and in particular its foundation in notions of property and the sovereign self. That is, he demonstrates how a notion of hospitality founded on these Eurocentric notions of self and relatedly that of property, entails their undoing. Perhaps one of the most telling sentences that Derrida writes about hospitality is in the form of a question: "Is not hospitality an interruption of the self?" (Derrida 1999, 51). (Echoing the bomb's interruption of itself!) The "self" is constituted through the incorporation of the Other within the "self." The Other interrupts, irrupts within/through/as the constitution and deconstitution of the self. In conversation with the work of Emmanuel Levinas, Derrida harkens to Levinas's notion of the infinite within the finite in terms of hospitality: the "essence of what is or, rather, of what *opens* beyond being is hospitality," or as he explains further, "[b]ecause it opens itself to—so as to welcome—the irruption of the idea of infinity in the finite, this metaphysics is an experience of hospitality" (Derrida 1999, 46).[23]

Is this not precisely what we learned that QFT says of matter itself, or rather doesn't QFT push this matter more forcefully than Derrida? *Is not matter a matter of hospitality, in its very constitution, in its very un/doing of "it/self"?* Is there not *an irruption of the infinite within the finite*, an intrusion of "an unlimited number of unknown others to an unlimited extent"[24] such that *the nature of matter entails in its very structure the undoing of identity, individuality, essence?*

According to QFT, there is no a-void-ing the fact that the void is far from empty. Indeed, nothingness is an infinite plentitude, not a thing, but a dynamic of ontological indeterminacy that cannot be disentangled from (what) matter(s). Hence, according to QFT, *even the smallest bits of matter are an enormous multitude*. Each "individual" is made up of all possible histories of virtual intra-actions with all others; or rather, according to QFT, there is no such thing as a discrete individual with its own roster of properties.[25]

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[23] For Levinas, first philosophy, metaphysics, is ethics, not ontology. For agential realism, ethics, ontology, and epistemology are not separable, hence, my neologisms "onto-epistemology" and "ethico-onto-epistemology" (Barad 1996; 2003).

[24] This is Penelope Deutscher's way of putting the notion of unconditional hospitality to Jacques Derrida in her interview with him; in particular, she writes: "So an unconditional hospitality would have to be offered to an unlimited number of unknown Others, to an unlimited extent" (Deutscher 2001).

[25] Indeed, the very notion of property is in question when it comes to quantum physics; which troubles the core of Western law in its dependence on metaphysical individualism, and capitalist modes of production and exploitation.

In fact, *the "other"—the constitutively excluded—is always already with-in*: *the very notion of the "self" is a troubling of the interior/exterior distinction*. Matter in the indeterminacy of its being un/does identity and unsettles the very foundations of non/being. Together with Derrida, we might then say, "Identity … can only affirm itself as identity to itself by opening itself to the hospitality of a difference from itself or of a difference with itself. Condition of the self, such a difference *from* and *with* itself would then be its very thing … *the stranger at home*" (Derrida 1993, 10, 28; my emphasis).

What is being called into question here is the very nature of the "self"; all "selves" are not themselves but rather the iterative intra-activity of all matter of time-beings. *The self is dispersed/diffracted through being and time.* In an undoing of the inside/outside distinction, it is undecidable whether there is an implosion of otherness with-in or a dispersion/explosion of self throughout spacetimemattering.

While for Emmanuel Levinas the stakes are the ethical constitution of the *human* subject, "submitting subjection to the idea of infinity in the finite" (Derrida 1999, 22), what we find here is that *this structure of hospitality is a matter of the very nature of matter itself (in an undoing of "it" and "self"), and not limited to the human;* indeed, crucially, *this structured relationality precedes the differential constitution of human in opposition to some other*. In other words, what is at issue here is not a matter of extending the range of Levinas's thinking or his conclusions to the nonhuman or otherwise-than-human, but rather, it is in *the very nature of nature's radical hospitality that the self's constitutive outside interrupts and irrupts within the self*, and this dynamism of ontological indeterminacy precedes and undoes any delineation, including that of "the human." In an important sense then a notion of *radical hospitality coming through QFT breaks with Derrida's conceptions of conditional and unconditional hospitality, breaking open* not only some alleged preexisting distinction between human and its others, but also *the very walls of deconstruction's circumscription within the limits of discourse*; for as Derrida says in "Force of Law":

> Discourse here meets its limit—in itself, in its very performative power. There is here a silence walled up in the violent structure of the founding act; *walled up, walled in* because this silence is not exterior to language (Derrida 2005c, 242, my emphasis).[26]

[26] I am grateful to Daniela Gandorfer and Zulaikha Ayub for bringing this passage to my attention (see Derrida 2002, 55).

But self-referentiality is not the same as self-touching. Silence may not be exterior to language, but this is not a walling in. Not only does *the dynamism of in/determinacy* undo any such walling up, walling in, but it *is always already in touch with matter*, or rather, *it is matter in its inseparability from the speaking silence of the void* (not some walled in silence—full stop).

The fact that *this structure of hospitality* is not limited to the human but rather *is in the very nature of nature* is vitally important. For it means that the self—or should we say "itself," which is not "itself"—*is not merely interrupted by human others but also by a host of other others, including the hauntological relationalities of inheritance and the hauntological wanderings/wonderings of nothingness*. In the example we've been discussing this would include the irruptions of the forces of capitalism, colonialism, and militarism, but *also an infinite set of possibilities for their undoings*. This is no small matter! *Inside the nucleus of the atom is an implosion of violent legacies, sedimenting historicities of colonialism, racism, extractivist capitalism, militarism, neocolonialism, and also the seeds of their downfall and possibilities for living and dying otherwise.* In other words, the very forces that hold the nucleus together and their (violent) undoing (such as in the splitting of an atom and a branching chain reaction that leads to the explosive nature of a nuclear device), as well as *their (deconstructive) undoing (e.g., possibilities for justice-to-come, for interrupting state sanctioned violence in the use of nuclear weapons)*, are written into the very nucleus, the core, of an atom. The deconstructive element lives inside the forces of violence in their im/possible un/doing. Nature deconstructing itself, such that nature is always already/has never been separable from culture, from the implosion that is natureculture.

The classical Newtonian notion of the void might have served as a much-valued apparatus in the service of colonialism. But according to QFT the void is not the background against which something happens, something matters, something appears, but rather, an active constitutive part of every "thing." As such, *even the smallest bits of matter—are haunted by, indeed, constituted by, the indeterminate wanderings of an infinity of possible time-beings—a radical hospitality*, "an unlimited number of unknown others, to an unlimited extent." According to QFT, matter is an ongoing transmutation, an undoing of self, of identity, where the "other" is always already within. *Matter is a matter of hospitality—the possibility/impossibility of radical hospitality—in its very constitution, in its very un/doing of "itself."*[27]

[27] Now, given this point about matter, together with what we have also learned about matter as a matter of justice, that is, justice-in-its-materiality, it is not the case that matters

Each bit of matter, each moment of spacetimemattering, is shot through with an infinite set of im/possibilities for materially reconfiguring worlds and pastfuturespresents; surely these matters are nothing less than matters of justice. *Is matter's un/doing not the mark of the force of justice that is written into the fabric of the world?* Which is not say that the world is always already just by its very nature, but rather to say that *a force of justice is available with-in every moment, every place, every bit of matter* (Barad 2017a). For therein lies the infinite possibilities for defeating the entangled forces of violence and for imagining and bringing forth what comes after the end of the world—that is, in the aftermath of the downfall of a multitude of entangled structures of violence that must be brought to an end.

Entire worlds inside each point, each specifically configured. In the case at hand, there is an implosion of world politics—devastation, dispossession, displacement, nuclear and climate refugeeism—inside a tiny island nation.

After the end of the world—the world of capitalism, militarism, racism, the ending of these structures of violence even if realized only locally and momentarily, if only for the time-being—in the aftermath of the downfall of hegemonic ways of thinking founded on the binarism of us/them, when instead of drawing lines in the sand, the practice will have been/is one of looking to the wind, like the Marshallese indigenous practice of wave-piloting, riding the diffraction patterns of difference/differencing/différancing guiding us along alternative paths, transformative alchemical wanderings/wonderings (Tingley 2016). This is an invitation to a practice of *radical hospitality*—an opening up to all that is possible in the thickness of the Now in rejecting practices of a-void-ance, taking responsibility for injustices, activating and aligning with forces of justice, and welcoming the other in an undoing of the colonizing notion of selfhood rather than as a marker of not us, not me.

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of justice and matters of hospitality are to be understood as analogous or parallel or equivalent concepts. Rather, matters of justice together with those of hospitality *as radical hospitality* (as elaborated in this section) are structurally related material fields/forces. Many thanks once again to Daniela Gandorfer and Zulaikha Ayub for discussions on this point. See also Daniela Gandorfer's response to my paper and (Derrida 2002, 55).

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Bibliography

1. Barad Karen (1996), "Meeting the Universe Halfway: Realism and Social Constructivism Without Contradiction", [in:] L. Hankinson Nelson and J. Nelson (eds.), *Feminism, Science, and the Philosophy of Science*, Dordrecht, Holland: Kluwer Press.
2. Barad Karen (2003), "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter", *Signs: Journal of Women in Culture and Society*, 3 (28), pp. 801-831.
3. Barad Karen (2010), "Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come", *Derrida Today*, 2 (3), pp. 240-268.
4. Barad Karen (2017a), "What Flashes Up: Theological-Political-Scientific Fragments", [in:] C. Keller and M. J. Rubenstein (eds.), *Entangled Worlds*, NY: Fordham University Press.
5. Barad Karen (2017b), "Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable", *New Formations: A Journal of Culture/ Theory/Politics*, 92, pp. 56-86.
6. Barad Karen (2017c), "No Small Matter: Mushroom Clouds, Ecologies of Nothingness, and Strange Topologies of Spacetimemattering", [in:] A. Tsing et al. (eds.), *Arts of Living on a Damaged Planet*, Minneapolis: University of Minnesota Press, pp. 103-120.
7. Barad Karen (forthcoming), *Infinity, Nothingness, and Justice-to-Come*.
8. Barad Karen, (2007), *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham: Duke University Press.
9. Cohen Peter (2010), "Bikini's Tragic Heritage: The World's Most Atomic Atoll is Recognized by the UN", *These Times*, September 15.
10. Davis Jeffrey Sasha (2007), "Scales of Eden: Conservation and Pristine Devastation on Bikini Atoll", *Environment and Planning D: Society and Space*, 25, pp. 213-235.
11. DeLoughrey Elizabeth (2009), "Radiation Ecologies and the Wars of Light", *Modern Fiction Studies*, 3 (55), pp. 468-495.

12. DeLoughrey Elizabeth M. (2012), "The Myth of Isolates: Ecosystem Ecologies in the Nuclear Pacific", *Cultural Geographies*, 2 (20), pp. 167-184.
13. Derrida Jacques (1984), "No Apocalyse, Not Now (full speed ahead, seven missiles, seven missives", *Diacritics*, 2 (14), pp. 20-31.
14. Derrida Jacques (1993), *Aporias*, Stanford: Stanford University Press.
15. Derrida Jacques (1999), *Adieu: To Emmanuel Levinas*, trans. Pascale-Anne Brault and Michael Naas, Stanford: Stanford University Press.
16. Derrida Jacques (2002), *Of Hospitality, Anne Dufourmantelle Invites Jacques Derrida to Respond*, trans. Rachel Bowby, Stanford: Stanford University Press.
17. Derrida Jacques (2005a), "Hostipitality", [in:] idem, *Acts of Religion*, ed. Gil Anidjar, New York: Routledge.
18. Derrida Jacques (2005b), *Rogues*, trans. Pascale-Anne Brault and Michael Nass, Stanford: Stanford University Press.
19. Derrida Jacques (2005c), "Force of Law: The 'Mystical Foundation of Authority'", [in:] idem, *Acts of Religion*, ed. Gil Anidjar, New York: Routledge.
20. Deutscher Penelope (2001), "A Discussion with Jacques Derrida", *Theory and Event*, 11 (5).
21. Feynman Richard (1985), *QED: The Strange Theory of Light and Matter*, Princeton, NJ: Princeton University Press.
22. Gerrard Michael (2014), "A Pacific Isle, Radioactive and Forgotten", *New York Times*, December 3.
23. Hashimoto Isao, *1945-1998*, [online:] www.ctbto.org/specials/1945-1998-by-isao-hashimoto/.
24. Jetñil-Kijiner Kathy, *Dome Poem Part III: "Anointed" Findal Poem and Video*, [online:] https://www.kathyjetnilkijiner.com/dome-poem-iii-anointed-final-poem-and-video/ [accessed: 30.09.2020].
25. Kato Masahide (1993), "Nuclear Globalism: Traversing Rockets, Satellites, and Nuclear War via the Strategic Gaze", *Alternatives*, 18, pp. 339-360.
26. Keānuenueokalani Williams Liza, Gonzalez Vernadette Vicuña (2017), "Indigeneity, Sovereignty, Sustainability, and Cultural Tourism: Hosts and Hostages at 'Iolani Palace, Hawai'", *Journal of Sustainable Tourism*, 5 (25), pp. 668-683.
27. Kelen Alson, (2017), "The Dome", *ABC News*, posted Mon., 27 Nov., 8:27 pm, Updated Mon. 15 Jan. 2018, 3:19 pm, [online:] https://www.abc.net.au/foreign/the-dome/9198340.
28. LaDuke Winona, Churchill Ward (1985), "Native America: The Political Economy of Radioactive Colonialism", *The Journal of Ethnic Studies*, 3 (13), pp. 107-132.
29. Lyons Paul (2006), "Introduction: Bound-together Stories, Varieties of Ignorance, and the Challenge of Hospitality", [in:] idem, *American Pacificism: Oceania in the US Imagination*, New York: Routledge.
30. MGM newsreel (1946), *Bikini—The Atom Island*, [online:] https://www.youtube.com/watch?v=zri2knpOSq.
31. Oppenheimer Robert J., *I am become Death, the destroyer of worlds*, [online:] https://www.youtube.com/watch?v=lb13ynu3Iac.
32. Rose Johnston Barbara, Barker Holly M. (2008), *Consequential Damages of Nuclear War: The Rongelap Report*, Walnut Creek, CA: Left Coast Press.

33. Sinnerbrink Robert (2006), "Deconstructive Justice and the 'Critique of Violence': On Derrida and Benjamin", *Social Semiotics*, 3 (16), pp. 485-497.
34. Tingley Kim (2016), "The Secrets of the Wave Pilots", *New York Times*, March 17.
35. Westmoreland Mark W. (2008), "Interruptions: Derrida and Hospitality", *Kritike*, 1 (2), pp. 1-10.
36. Zee Anthony (2010), *Quantum Field Theory in a Nutshell*, 2nd ed., Princeton, NJ: Princeton University Press.

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Leo Courbot*

Vatic Environmentalism: Orphic Aesthetics and Ecological Justice[1]

Abstract

Founded on readings in quantum theory, poststructuralist philosophy, and world literatures, this article argues that an Orphic tradition can be traced over the last two thousand years, translating a history of human response to the environment which has contributed to the poetic formulation of an ecological ethics that we propose to call vatic environmentalism.

Keywords

Romanticism, Marvelous Realism, Orpheus, Quantum Physics, Environmentalism

For Marta Frątczak-Dąbrowska

> Carroll was whistling. A solemn and beautiful cry—unlike a whistle I reflected—deeper and mature. Nevertheless his lips were framed to whistle and I could only explain the difference by assuming the sound from his lips was changed when it struck the window and issued into the world (Harris 1960, 113).
>
> It seems that the more fantastic our image of matter becomes, the more real it becomes (and vice versa) (Barad 2007, 354).

[1] This article reproduces and builds upon literary histories and arguments provisionally formulated in the last chapter and general conclusion of my monograph (Courbot 2019).

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Keynote: Calibrating Scales

In "The Climate of History: Four Theses," Dipesh Chakrabarty understands the Anthropocene as a question of scale. The Anthropocene, defined as the present geological era in which "humans now wield a geological force" and "have become geological agents" (Chakrabarty 2009, 206), would indicate a "collapse" of the differentiation between the timescales of "human history" and "natural history" (208) caused by the anthropogenic acceleration of natural history, that is, an escalade, a scaling up of the pace of climate change.

This historical turning of the scales also implies that "we" are now responsible for the survival and/or extinction of "our" and "Other" species endangered by global warming: "we" weigh in the scales of environmental justice, insofar as justice is defined as an ethics of responsible relation to others, be they contemporaneous to ourselves, extinct, or yet to come (Derrida 2006, xviii, 26). I am provisionally using scare quotes because the presentation of "humanity" and its "Other" as determined is not mine, but Chakrabarty's. Determination, by the way, is a question of scale that is coterminous with the application of law, in which justice is the institutionalized scaling of "fair" and "unfair." Moreover, scales, as membranes covering the bodies of reptiles and mammals, are visual indicators of a body's outline – classical criteria for determining where one body ends and another begins and, by extension, which body can be judged against which.

A "scale" may also designate a "hut, shed," or habitat, that is, the home, the *oikos* of *oiko-logia*/ecology as a discursive practice that presupposes a definition of "environment" on the scale of "accommodation:" issues of scale thus relate humanity, justice and the environment.[2] Consequently, following Enlightenment ideals, Chakrabarty contends that being responsible in the Anthropocene requires that "reason" be deployed on a planetary scale among human beings (Chakrabarty 2009, 210): logically, the change of ratio induces a rational change, a new scale for the sharing of reason.

[2] The connection between these various meanings of "scale" is not accidental. A "scale," as a weighing instrument, a hut, and a piece of bodily shell derives from the Germanic root *skel-*, to cut, share, divide, compare. Comparing, separating, or discriminating are acts of measurement by way of which the "scale," as a size reference or as the conventionalization of distances between musical notes, also relates to the Germanic *skel-*, even if the scalar and musical significations derive from the Latin *scala*, to climb. The definition of anthropogenic environmental change, and the implied operation of a *cut* between what is presumably "human" and/or "environmental" is, precisely, the question of scale raised by the Anthropocene. In this article, definitions of "scale" and etymological information are drawn from the *OED*.

Chakrabarty's reliance on Enlightenment philosophy is no surprise since his scaling of the "human" against the "natural" is a consequence of a belief in the separateness of such things as "man" and "nature" as "independently existing object[s] with inherent attributes," which is typical of Cartesian and Newtonian (meta)physics (Barad 2007, 56, 106-107, 120). Chakrabarty presumes that a separation between human and natural histories has "collapsed" with the Anthropocene (Chakrabarty 2009, 208) subsequently to the anthropogenic merging of their previously distinct time scales, and calls for a new definition of humanity that would "scale up our imagination of the human" (206) and induce a global redistribution of Enlightenment reason (despite the irrationality of contemporary politics) to ward off extinctions (210-211, 219-220).

Chakrabarty implies, then, that previously separate domains of being, respectively predicated on (geological) macroscopic and (human) microscopic timescales, *have become entangled*: "The geologic now of the Anthropocene has become entangled with the now of human history" (212). However, according to empirical evidence provided by quantum physics (Barad 2010, 59-60), this argument is counterfactual. "Humans" and "nature" have not become entangled: the *cut* between "humans" and "nature" is only enacted from their entangled relation within a material "*phenomenon—the inseparability (differentiated indivisibility) of 'object' and 'agencies of observation*" in Niels Bohr's sense of the term (Barad 2010, 253, author's italics). The "human" and the "non-human," the "cultural" and the "natural" are non-original: they do not precede entanglement. By contrast, a phenomenon constitutes the prime-yet-decomposable element from within which the ontic-semantic determination of "humans" and "nature" emerges performatively through their relation of intra-activity, inseparability, différance (Derrida 1982, 13; Barad 2010, 240) or entanglement: "human history" has not become entangled with "natural history." Entanglement is the prerequisite for the definition of the human and the natural, because "we are part of the nature that we seek to understand" (Barad 2007, 247).

The ontic-semantic significance of "humanity" and "nature" is contingent on material arrangements or phenomena, whereby determination is constantly being renegotiated, and outside of which there is no "nature" or "humanity" to speak of: "Phenomena are ontologically primitive relations—relations without pre-existing relata. […] In other words, relata do not preexist relations; rather, relata-within-phenomena emerge through specific intra-actions" (Barad 2017, 233-234). The Anthropocene does not indicate that predetermined "humanity" and "nature" have become entangled, but

that the entanglement through which "humanity" and "nature" come to matter *has become observable on a macroscopic scale*. Metaphorically, the musicians may have changed scales, but it still is music that is being played.

Speaking of which, the scale of anthropogenic change that the Anthropocene denotes is reminiscent of the myth of Orpheus—whose song could change the course of rivers, make trees move, and alter animal behavior—when Chakrabarty cites Naomi Oreskes' description of the Anthropocene: "We have changed the chemistry of our atmosphere, causing sea level to rise, ice to melt, and climate to change" (Chakrabarty 2009, 206). In this sense, the Anthropocene does not only modify the received meaning of "being human," but indicates that defining the "real" and the "mythological" is contingent on material situations and open to renegotiation too: what used to be perceived as the supernaturality of Orpheus—the poet prophet, or *vates*, as Ovid called him—is now considered a matter of fact.

Founded on readings in quantum theory, twentieth-century philosophy, and literary history, this article argues that an Orphic literary tradition can be traced over the last two thousand years. This tradition translates a history of human response to the physical environment which, since the second half of the twentieth century, has contributed to the poetic formulation of an ecological ethics that we propose to call vatic environmentalism, that is, a material and ethical perception of the environment that is patterned on the poetic and prophetic nature of Orpheus' performativity.

I. Orpheus in Retrospect

The myth of Orpheus owes its longevity to a millennial tradition of artistic and philosophical readings that is as rich as diversified, since versions of the myth started to differ with Ovid and Virgil and went on being revised to the present, in many cultures from Europe and, arguably, Asia, Africa, and the Americas (Gros Louis 1967, 245; Belmont 1985, 60).

According to the myth,[3] Orpheus is the son of the god Apollo and the nymph Calliope, and endowed with supernatural musical abilities, as he can, with his song, induce inanimate elements—trees, water, stones—to move at will, and animals to temper their bestial instincts, gather around and listen to him. As such, and retrospectively, Orpheus personifies the Anthropocene, insofar as he "wield[s] a geological force" (Chakrabarty 2009, 206). Fur-

[3] The ancient Roman versions of the myth of Orpheus referred to in this article are drawn from Ovid's *Metamorphoses* (x 1-111, xi 1-84) and Virgil's *Georgics* (iv 453-527).

thermore, reading the Anthropocene as the retrospective activation of a myth cancels out the possibility for one to misunderstand the entanglement of humans and nature as unprecedented. In other words, associating the Anthropocene to Orpheus prevents it from becoming a whitewashed or "white mythology" that would have "effaced in itself that fabulous scene which brought it into being" (Derrida 1974, 11). An Orphic understanding of the Anthropocene is, therefore, morally and politically significant, insofar as it pictures human-natural entanglements as historical and (to some extent) performed, rather than new and suffered, thereby entailing a different scale of ecological responsibility.

Orpheus' music also allows him to seduce the nymph Eurydice, with whom he lives happily until her untimely death, when she is bitten by a snake. Refusing the fact of his lover's death, Orpheus, thanks to his skills as a bard, crosses the rivers surrounding the underworld, or Hades, tames the three-headed Cerberus guarding its doors, and persuades Pluto and Persephone to restore Eurydice back to him. Orpheus' success stops there, for, having sung Eurydice back to *him*, he still has to lead her out of Hades and into the realm of the living. Pluto and Persephone allow him to do so under the condition that he shall not look back until Eurydice and he are fully out of the underworld. Orpheus cannot, however, resist the temptation of looking back, and subsequently loses Eurydice a second time. As a result, he ends up wandering Thrace, an unwelcoming region of Greece, until he dies at the hands of "devoutly mad" female bacchanals (Ovid XI, 3) who, having been neglected by him, literally tear him to pieces and throw his remains into the Hebrus river. His severed head, floating downstream, still sings, lamenting the loss of Eurydice, until it reaches the shores of the island of Lesbos, while his specter is reunited with that of his dead wife in Hades. Orpheus' mourning for Eurydice and their reunion as ghosts may therefore allegorize a haunting, melancholic grieving, not for a pre-determined being, but for a modality of entanglement within nature—that is, a scale of ontological relation, for instance, where Orpheus and Eurydice are alive together—that cannot be achieved any longer, because of an irresponsible use of performative agency. In this sense, the vatic ability to (re-)enchant the world through imaginative, artistic means might indeed influence ecological circumstances in that world, but simultaneously indicates the dangers of Orphic overconfidence in the possibility to resuscitate what has gone or is going extinct, including the memory of what was lost, as Ovid and Plato suggest.

Ovid's rendition of the Orpheus story is, indeed, a direct response to the reception of writing that is illustrated by Plato in the *Phaedrus* and the *Republic*, a reception that was itself conditioned by the spread of Orphism at the time (Young 2008, 10-11). While the textual spread of Orphism made Socrates suspicious of writing, notably of written speech as an elixir of memory, Ovid, through the metaphorical representation of the emergence of writing at the end of his version of the myth of Orpheus (whose song gets magically printed on the leaves that gag him[4]), defends the value of written verse as a means by way of which archaic Greek myths can actually be recorded and *re-membered* into a Greco-Roman, literary *corpus* (Young 2008, 15-17). Following the classical era in which Plato (c. 428-348 BC) and Ovid (43 BC-c. 17 AD) successively lived, the advent and spread of Christianity, from late antiquity to the Middle Ages, led to the formulation of analogies between Jesus Christ and Orpheus as a means to induce pagan communities of the Mediterranean (including Greece and Egypt) to convert to Christianity. This progressively gave way to a moralizing interpretation of the myth in Europe, notably in the wake of the publication of Boethius' *Consolation of Philosophy*, in works such as those of Henryson, Chaucer, and the unknown authors of *Ovide Moralisé* and *Sir Orfeo* (Chaucer 1971; Gale 2003, 334; Gros Louis 1966, 652-653; 1967, 245-252). This Christian, syncretic way of reading the myth, which Gros Louis calls the "textual tradition," developed into a "popular tradition," as oral poets took up the Christian version of the myth as a subject for their song, by way of which the myth of Orpheus was popularized and integrated to the world of chivalric romance (Gros Louis 1966, 645).

Although the "popular tradition" came to supplant the "textual" one, both followed their course well into the Renaissance. The "textual" trend, for instance, gained importance in Britain under Elizabethan rule, when Orpheus was favored as a moral poet-philosopher who could temper the base, bestial instincts of animals and men with his song (Gros Louis 1969, 64-71). This view of Orpheus as a civilizing force was capitalized upon by humanist preceptors of rhetoric who, prolonging Ovid's muting of Orpheus' song into

[4] This printing of verse onto a tree leaf evokes the effect of Orpheus' song on the elements, and the way in which his relation to the natural environment is one of entanglement, in so far as his transformation of natural order always implies his own metamorphosis. Retrospectively, in the Anthropocene, this image indicates that "man" and "nature" are coterminous, co-determined, and that their being is not inherent or granted, but contingent on material arrangements every constituent of which is engaged in a relation of responsibility.

written verse, privileged Orpheus' speech over his music as an instrument of power. This favoring of rhetoric over music was then used by Elizabethan poets such as Shakespeare, Sidney, John Rainolds, Henry Vaughan, Henry Reynolds, Francis Bacon and Edmund Spenser to legitimize written verse as an art form in its own right, and confirm the importance of their social role as poets (Cochrane 1968, 11). For instance, Spenser, in the *Faerie Queene*, secures his position as a national poet by creating for himself a (literary) genealogy positing Orpheus, via Virgil, as one of his ancestors,[5] and invents, for Elizabeth, a line of descent relating her to feminine forebears such as Britomart, the Virgin Mary, Eurydice, and Isis, by way of which the poet creates a "*translatio imperii*" that entitles Elizabeth to the inheritance of the Roman Empire (Delsigne 2012, 199, 212). Furthermore, Spenser relies on the legend according to which Orpheus was the Argonaut who outplayed the sirens and brought order to the watery world to defend British overseas claims to waters and lands that Britain was trying to wrestle from the Spanish at the time: by the same token, Spenser not only re-inscribed Orpheus within the literary legacy of the Roman Empire, but recreated the Thracian bard as an imperial civilizer in the imagery that promoted modern colonial conquest and the appropriation of oceanic resources.[6]

Apart from this Elizabethan expansion of the "textual tradition" of the Middle Ages, a revival of the "popular tradition of reading the myth of Orpheus occurred by the end of Elizabeth's reign, at the same time as the rise of Puritanism, the advent of Enlightenment philosophy, and the accession of James I to the throne (Gros Louis 1969, 70). The death of Elizabeth and the changing times had a disorienting effect on poets of the period, such as John Donne (Gros Louis 1969, 70), and led to a shift in representations of Orpheus, which started to lean toward the morbid, for instance with Milton's description of the bard's severed head floating down the Hebrus in *Lycidas* (Milton 1637, lines 58-63; Martindale 1985, 322-323). Furthermore, the Puritans' desecration of myths, in addition to the insistence of Enlighten-

[5] Conversely, Spenser's French contemporary, Ronsard, staged himself as *the* French Orpheus (Cain 1971, 28).

[6] That Orpheus became part of the colonial imagery in which "Britannia rules the waves" might consist in a way through which the myth spread around the world, via colonial routes. The persistence and popularity of the myth on all continents is also due to its cross-cultural adaptability, as thousands of Orpheus-type myths can be found around the world, for instance in India, Japan, New Zealand (in Mahori mythology), Hawaï, Samoa, Melanesia, the New Hebrides, in American Indian mythologies, and in Egyptian and West African tales (Gros Louis 1967, 245; Gonzales 1996, 153-164; Bricault 2006, 261-269; Delsigne 2012, 205; McDaniel 1990, 28; Misrahi-Barak, Joseph-Villain 2012, 36).

ment philosophers on the importance of pragmatic rationality, ultimately led to "Restoration and eighteenth-century burlesque and mock-heroic treatments of mythical heroes" where Orpheus was "travestied and used as mere decoration" (Gros Louis 1969, 80).

II. Quantock to Quantum

Only with Wordsworth and the subsequent rise of Romanticism in the late seventeenth and early nineteenth centuries would Orpheus again be taken seriously, because the *Lyrical Ballads* project resuscitated the myth's implications on the relational, contingent, unstable, co-determination of humans and nature, and also of reality and magic, as shown below.

During the summer of 1788, in Cambridge, while mourning for his deceased parents, Wordsworth, then an orphan, translated two hundred lines from Virgil's *Georgics*, a hundred of which were dedicated to the myth of Orpheus. It is through this translation, in his formative years, that Wordsworth developed his portrayals of grieving (wo)men and worked out his lyrical sense of a man's relationship to nature and time—for instance through the figure of the rower in his "river" poems (Graver 1991, 137; Wu 1996, 360). Lord Byron and Percy Shelley would soon follow suit, the former by recurrently composing scenes of Orphic leave-taking in *Manfred* and other works (Stratham 2009, 364-365, 371), the latter by claiming, in "A Defence of Poetry," and in keeping with the textual tradition of the Elizabethan period, that poets are "the unacknowledged legislators of the world" (Shelley 1821). At the same time, and well into the Victorian age, Mary Shelley's *Frankenstein* would remind readers of the dismemberment of Orpheus as much as of the re-membering of Osiris—an Egyptian deity to whom Orpheus is often syncretically related, as a disciple of Isis, Osiris' wife (Delsigne 2012, 206)—and Dickens would allude to the bard in his last novel, *The Mystery of Edwin Drood*, and to Eurydice through the character of Agnes in *David Copperfield* ("David" himself being a Biblical figure that has also often been compared to Orpheus) (Bauer 1993, 309; Gros Louis 1966, 644).

Meanwhile, the myth of Orpheus lived on into French literature, notably through the syncretic vogue that followed the 1789 Revolution (Cellier 1958, 146; Spiquel 1999, 542) and into the nineteenth century in the works of Gérard de Nerval and Victor Hugo. In "El Desdichado," Nerval represents himself as Orpheus while, in "Aurelia," he laments upon the loss of Eurydice and uses the Rhine as an allusion to *Faust*, Goethe's Orphic tale (Fairlie 1970, 155; Cellier 1958, 147). Hugo recurrently mentions Orpheus throughout his

work as well (Cellier 1958, 151-152; Spiquel 1999, 546), and it is by citing Hugo's poem entitled "Horreur Sacrée" that Sartre would later claim that "Orpheus is Black" (Hugo 1889, 355; Sartre 1948, ix, translation mine).

As far as France at the turn of the twentieth-century is concerned, Apollinaire certainly was one of its most Orphic poets: his pseudonym related him to Apollo (Orpheus' father), his first collection of poems was entitled "Le Bestiaire d'Orphée" and, in "Alcools," he repeatedly claims to be from Orphic lineage, in addition to comparing himself to (the Christian) God (Grojnowski 1981, 94-100; Dekens 2011, 42). Furthermore, he used to designate his artistic project of coupling poetry to music and the visual arts, notably cubist painting, as Orphic (Grojnowski 1981, 103). Only after seeing *Parade*, the ballet composed by Eric Satie and written by Jean Cocteau—whose Orpheus film trilogy also relates him to the bard (Cocteau 1930; 1950; 1959)—would Apollinaire coin the term "surrealism" to re-christen what he had so far been calling "Orphism." The term would soon be taken up by André Breton to write his *Surrealist Manifesto* (Grojnowski 1981, 103; Bowers 2004, 133). Hence, Surrealism was, from its beginnings, haunted by the specter of Orpheus and, although the artistic movement was short-lived (it is commonly accepted that it lasted from 1919 to 1939), two other forms of Orphism arguably rose from it, and were particularly related to poetic definitions of "man" and "nature" in the Americas, the Caribbean, and Africa (Bowers 2004, 133).

First and foremost, it is actually through his exchanges with French Surrealists that Alejo Carpentier discovered Franz Roh's description of a new form of expressionist painting as "magic realism," a term he re-appropriated as "*lo real maravilloso Americano*," as a means to describe what he viewed as the intrinsically marvelous nature of the American (and Caribbean) landscape that European Surrealists were forced to reproduce, artificially, through the inclusion of exotic elements in their works. Furthermore, Carpentier's use of the term is an open reference to the "French Surrealists' exhortation that reality should be considered as marvelous" (Chanady in Zamora and Faris 1995, 137). This American "territorialization of the imaginary" (137) can be viewed as Orphic insofar as it corresponds to an enchanting and enchanted reception of landscape by way of which "'magic' images are borrowed from the physical environment itself, instead of being projected from the characters' psyches," as Jeanne Delbaere-Garant puts it in her definition of one of the most widespread variants of marvelous realism in literature, which she calls "mythic realism" (Delbaere-Garant in Zamora and Faris 1995, 253). Such an infusion of lyrical sense and supernatural mo-

tion in a natural landscape is, indeed, comparable to the mythic response of trees and streams to Orpheus' song. By the same token, marvelous reality provides an Orphic gateway into American and/or Caribbean literature(s).

Carpentier's Orphic designation of a supposedly American aesthetics, in addition to leading back to European surrealists and their African influences, points to the cross-cultural dimension of marvelous realism, which can notably be observed through a generic confluence between magical realism and the early Romanticism of Wordsworth and Coleridge. In fact, magical realism consists in a genre of fiction where the presumably supernatural is considered as an integral part of reality. In other words, magical realism may require that some readers temporarily adopt a definition of reality that differs from their sense of what is real. For instance, Carpentier explains that the intrinsically marvelous quality of American landscapes led European explorers to conceive of what they thought supernatural as part of nature, and that such a conception (the supernatural as integral to the natural) led to the specific type of literary production he calls magical realism (Chanady in Zamora and Faris 1995, 124-144). Yet, that a literary genre requires readers to accept the presentation of presumably supernatural facts as reality in order to be (emotionally) receptive to the rest of the work also appears to operate in the same way as what Coleridge—who also wrote verse on Orpheus (Leadbetter 2016)—calls the "willing suspension of disbelief" in his *Biographia Literaria*, when he discusses the *Lyrical Ballads* project,

> in which it was agreed, that my endeavors should be directed to persons and characters supernatural, or at least romantic; yet so as to transfer from our inward nature a human interest and a semblance of truth sufficient to promote for these shadows of the imagination that willing suspension of disbelief for the moment, which constitutes poetic faith. Mr. Wordsworth, on the other hand, was to propose to himself as his object, to give the charm of novelty to things of every day, and to excite a feeling analogous to the supernatural, by awakening the mind's attention to the lethargy of custom, and directing it to the loveliness and the wonders of the world before us; an inexhaustible treasure, but for which, in consequence of the film of familiarity and selfish solicitude we have eyes, yet not see, ears that hear not, and hearts that neither feel nor understand (Coleridge 1817).

The willing suspension of disbelief consists in readers accepting the supernatural, "or at least romantic" features of a tale in order to enjoy its "human interest," residing in what such features allow "our inward nature" to express or represent, such as emotions, which Wordsworth had to draw from everyday life and make so strong and passionate that they would "excite

a feeling analogous to the supernatural" and tear "the film of familiarity" to pieces. Wordsworth's task, then, was to give sight back to readers blinded by the tumult and distractions of daily routine to slow down and adopt a "quiet eye" that would allow them to "see into the life of things" (Wordsworth, Coleridge 2005, 157), which sounds like quite a supernatural fit. Hence, in Wordsworth's part of the project, the requirement of a "willing suspension of disbelief" in the supernatural is syncretized with that of "a willing suspension of perception in distraction." Not only did such prerequisites—calm observation of nature and acceptance of the supernatural effect it may produce—condition Wordsworth and Coleridge's composition of the *Lyrical Ballads*: they also appear to consist in a way of seeing that the marvelous reality of tropical nature forces on its viewers, according to Carpentier. In other words, the supernatural impression that nature produces to induce authors to write in a magical realist way is analogous to the effect that Wordsworth's and Coleridge's early Romantic poetry sought to synthesize, that is, "the powerful overflow of powerful feelings" provoked by one's environment and "recollected in a state of tranquility" (Wordsworth, Coleridge 2005, 307). In this sense, Romanticism might be perceived as being in confluence with magical realism, if magical realism is defined as a literary presentation of one's reception of reality as marvelous.

It follows that Aldous Huxley's contention that Wordsworth's appropriation of nature to convey religious morality would be impossible in the tropics must be qualified:

> The Wordsworthian who exports this pantheistic worship of Nature to the tropics is liable to have his religious convictions somewhat rudely disturbed. Nature, under a vertical sun, and nourished by the equatorial rains, is not at all like that chaste, mild deity who presides over the *Gemüthlichkeit*, the prettiness, the cozy sublimities of the Lake District (Huxley 1964, 6).

Huxley does not perceive that the appropriative gesture of Wordsworth's Romanticism unsettles the very definition of nature by blurring the distinction of what is taken to be inherently natural or supernatural, thereby making nature as uncommodifiable as its (tropical) magical realist reception. Of course, the colonial use of Wordsworth's poems in imperialist educational programs proved traumatic to Caribbean readers and authors such as Jamaica Kincaid, because there was no referent in the tropics to visualize flora such as the "daffodils" of Cumbrian and Quantock hills (Smith 2002, 806). Yet, this negative influence must not be blamed on Wordsworth, but

on the instrumentalization of his poetry by colonial institutions that served the British imperial agenda (Smith 2002, 812). Furthermore, numerous scholars perceive strong analogies and intertextuality between the works of authors from the African diaspora and early British Romanticism, going so far as calling them "post-Romantics" and their productions "Black Atlantic" Romanticism (Oakley 2011, 3; Pace 2017, 115). Other critics have pointed to the reciprocal influences operating between British Romanticism and Caribbean literature by showing how, for instance, Coleridge and Wordsworth were interested in Caribbean Voodoo and Obeah myths and cults as potent revolutionary tropes for their poems, such as in "Goody Blake and Garry Gill" and "The Three Graves" (Richardson 1993, 4). Moreover, Wordsworth's apology of Toussaint Louverture after his fight for the independence of Saint Domingue (now Haiti) is well known, and the exiled black woman he describes in "We Had a Fellow-Passenger" counts, with Ruth (who, by the way, visits America), Martha Ray, and Betty Foy, among the Orphic women of his verse (Curtis 1987, 144).

I have also shown that the two modes of vision described in Wordsworth's "Tintern Abbey" are similar to the ways of seeing proposed in the magical realist novel *Palace of the Peacock*, written by Guyanese writer Wilson Harris (Courbot 2019, 261-263), whom Pauline Melville, another Guyanese-born magical realist, compares to a Dionysian, visionary creator, that is, a *vatic* writer, before stating that his "genius" is "best expressed in the words of Coleridge" (Melville 1997, 51-52).[7] Inversely, in his reading of a short story by Pauline Melville, Harris states "that the myth of Orpheus and Eurydice is now of immense importance" because it can suggest a different social model whereby the extinction of species and the death of the imagination can be countered by viewing Orpheus as a resuscitator that can lead Persephone (as a trope of humanity) back to a love for life by separating her from Pluto (as an allegory of the death-dealings of capitalism) (Harris 1996, 9-11). Harris further suggests that this renewed ethical and environmental significance of the Orpheus myth, this contemporary vatic environmentalism, is supported by the recent advent of quantum physics, which has qualified the post-renaissance cut between natural and supernatural, science and

[7] I have also contended that Carpentier's idea of the Baroque, Glissant's prophetic vision of the past and George Lamming's "backward glance" are vatic environmental concepts (Courbot 2019, 283-284, 297). For a critique of "Tintern Abbey" as the result of Wordsworth's turning a blind eye to the ecological pollution of the river Wye and to the fact that the Abbey was a resting place for British outcasts, see Levinson 1986.

fiction, or history and myth as contingent on specific contexts (9-10).[8] This quantum entanglement can be clarified through a tracing of philosophical readings of the Orpheus myth.

III. Eurydice Schrödinger

Apart from magical realism, Negritude is another movement that Sartre, in "Black Orpheus," claims is an Orphic heir to Surrealism (Sartre 1948, xxii).[9] In "Black Orpheus," the preface to Senegalese writer and President Leopold Sedar Senghor's 1948 *Anthologie de la Nouvelle Poésie Nègre et Malgache de Langue Française*, Sartre argues that Negritude poetry is Orphic, in the Ovidian, vatic—poetic and prophetic—sense of the term, for two reasons. First, because Afro-Caribbean Negritude poets such as Césaire, being part of the African diaspora, are in exile, away from a lost Africa, like Orpheus in Thrace, away from Eurydice (Sartre 1948, xvi-xviii). Second, Sartre claims that Negritude poetry consists in the black poets' introspective search to retrieve and capture their black essence and bring it out of spiritual depths and into the light for all the world to see, as if it were a Eurydice (xvii). However, and in spite of Sartre's Orphic interest and primordial influence in twentieth-century French anti-colonial theory, through "Black Orpheus" (1948) and his 1961 preface to Frantz Fanon's *The Wretched of the Earth* (Sartre in Fanon 2010, 17-36), "Black Orpheus" sounds very awkward today. For instance, critics have repeatedly shown that Sartre mistakes ethnic essence—which is a fallacy—with historical experience (which is factual) (Sartre 1948, xii, xiv), and does so in order to promote the argu-

[8] The Guyanese writer's plea on behalf of a mythic quantum imagination reminds one that South America, Africa and the (colonial) history of cosmology and quantum physics intertwine: Arianne rocket ships are launched from French Guyana and the observation of a 1919 eclipse from Brazil and Principe provided empirical evidence for spacetime curvature and Einstein's theory of relativity (DeLoughrey 2007, 76), the expression of which is less suited to the English tongue than to pre-Columbian Amerindian languages, linguists have argued (Melville 2013, 9). Harris' "quantum imaginary" is palpable in the epigraph to this article, where the presumably "supernatural" modification of the character's voice is interpreted as a "natural" pattern of diffraction through a glass window, whereby, as our second epigraph suggests, the marvelous gets real.

[9] The focus on magical realism and Negritude to define vatic environmentalism must, however, not eclipse other twentieth-century ways of reading the myth of Orpheus, such as in Rainer Maria Rilke's *Sonnets to Orpheus* or James Joyce's *Ulysses* (Lamson 2010, 255). Harlem Renaissance writer Richard Wright also revised the myth in *The Man Who Lived Underground* (Cappetti 2001, 41). In the 1950s, Tennessee Williams published *Orpheus Descending* (1957), which was adapted to the screen as *The Fugitive Kind* (1960) by Sidney Lumet (Baker Traubitz 1976, 57-66) one year after Marcel Camus had won the Palme d'Or in Cannes for his *Orfeu Negro*, transplanting the myth to Brazil (Villeneuve 2004, 105-122).

ment that Negritude is the second part of a dialectic, an antithesis to European colonialism that will be synthetically resolved when black men fully integrate the contingents of the world's proletariat (Wehrs 2003, 765; Jacques 2011, 9). This argument reveals Sartre's Marxist bias and is invalidated by the fact that his designation of Negritude as the violent appropriation of the hegemonic language of masters and colonizers (French in the present case) (Sartre 1948, xviii) corresponds, according to Derrida, to a colonial desire that is, hence, not absolutely antithetical to European colonialism, and necessarily unsatisfiable, as the appropriation of literal signification is always-already subverted by the intrinsically metaphoric nature of language (Derrida 1996, 44, 47, 68-70). Furthermore, Sartre's contention that "black consciousness" will become "historical" through such appropriation (Sartre 1948, xxix, xxxvi), in addition to being misguided, presupposes, following Sartre's recurrent Hegelian binary distinctions, that "black consciousness" has been lacking historicity, which is highly debatable.

Finally, Sartre is so blinded by his argument that the language of Negritude poets is essentially "black" that he fails to see how Negritude poetry is replete with allusions to Western mythology, for instance to Homer (Sartre 1948, xxvii-viii). Furthermore, he remains strangely evasive about a citation he makes from Jean-Fernand Brierre (Sartre 1948, xxxvi), where the poetic persona claims that his memory exceeds the limits of lived experience and expands back in time to the era of slavery, while it is precisely via such a type of memory that "black consciousness" is proven to be *already* fully anchored in the history of modernity, and through which the vatic quality of Negritude poetry is confirmed, as the poet's supernatural memory brings a lost past into presence in the same way as Orpheus' song conjures the dead back from the underworld. Such a view of the imagination as a gateway to an apparently inaccessible past is, moreover, crucial in the magical realist literature produced by descendants of the African diaspora, and corroborates philosophical and scientific theses, from those of Renaissance thinkers such as Hobbes and Vico—who respectively believed that the imagination was a form of memory (Hobbes 14) and that, as a consequence of the mnemonic quality of the imagination, myth was formative of history (Banchetti-Robino 2011, 122)—to Holocaust theories of postmemory (Ward 2015, 132) and discoveries in behavioral epigenetics, according to which memory can be *genetically* inherited (Hurley 2013; Powledge 2011, 588-592; Ferenczi 2002, 34-35).[10]

[10] Epigenetics therefore confirm what was suggested by Ovid's representation of the printing of Orpheus' song onto the leaves that gag him: the entanglements of self and

Sartre's philosophical reading of Orphism is, therefore, inaccurate. Nigerian writer Wole Soyinka is aware of that, as he criticizes racial essentialism in Sartre, to whom he responds by creating, in *The Man Died* and *Season of Anomy*, African versions of the Orpheus myth that are not ethnically or culturally exclusive (Barber 2001, 91; Whitehead 2008, 29). Afro-Caribbean thinkers such as Stuart Hall and Édouard Glissant have also formulated theories thanks to which cultural identity would no longer be thought of as hermetic and static, but as mutable and open to Otherness (Hall 1990, 225-226; Glissant 1990, 169).[11]

With relevance to the present perspective, in France, during the second half of the twentieth century, and as Donald Wehrs shows, thinkers such as Jacques Derrida, Maurice Blanchot, and Emmanuel Levinas promulgated conceptions of identity and otherness that exceeded Sartre's essentialist logic (Wehrs 2003, 771) and turn out to be Orphic: in Levinas' discussion of ethics in *Totality and Infinity*, for instance, the Other, or rather, their *face*, is not, contrarily to what Sartre suggests, essentializable as an undifferentiated whole, but always-already, infinitely escapes any totalizing gaze, because the face constantly expresses itself (Levinas 2009, 42-44), and forces one to watch it again, or *respect* it, and therefore never petrify the Other's face with a Gorgon's stare. Thus, Levinas presents "the face-to-face [as] the starting point […] of the ethical relationship" (Poirier 2001, 107). In other words, the constant expression of the face is what makes the Other absolutely Other in the same way as, according to Derrida, the intrinsic metaphoricity of language makes it absolutely impossible to appropriate and hypostasize signification (1996, 44). As Patrick Poirier shows, Levinas' representation of the face-to-face, by way of which the Other escapes into infinity, corresponds to a reading of Ovid's description of how, when Orpheus turns around to face Eurydice, she inescapably evades his grasp (Poirier 2001, 108-109). Poirier further explains that it is through this Orphic conception of the ethic relationship that Maurice Blanchot rewrote the myth of Orpheus in "Orpheus' Gaze" and in *The Infinite Conversation* (Blanchot 1982, 171-177; Poirier 2001, 109). Thus, these late-twentieth century French conceptions of ethical relation to Otherness are predicated on a reception of the Orpheus myth.

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other perform "marks on bodies" (Barad 2007, 176), operate material and, hence, environmental reconfigurations that involve agential responsibility and the duty to remember.

[11] Hall does not give a definite name to his theory of identity, but tentatively suggests Derrida's "différance" (Hall 1990, 228-229). Glissant formulates a "poetics of Relation" (Glissant 1992, 169). We propose "tropicality" (Courbot 2019, 13-20).

Apart from the anecdotal evidence that a quantum detector built to identify the contents of dark matter in the Bern Underground Laboratory was named "Orpheus" (Abplanalp et al. 1996, 227), Levinas' Orphic contention that "the face-to-face is the starting point […] of the ethical relationship" (Poirier 2001, 107) is comparable to the role of measurement in quantum physics: following Schrödinger's questioning of the role of observation in his famous thought-experiment involving the survival of a cat, and subsequently to evidence yielded by quantum erasers in experimental metaphysics, it has been confirmed that the measurement of the definite state of an object was determined by its entanglement with agencies of observation, and that the simultaneous measurement of the wave and particle behaviors of matter could not be achieved, as it requires the use of mutually exclusive apparatuses (Barad 2010, 250, 260). In other words, specific entanglements of Schrödinger and a cat, respectively as agency and object of observation, determine specific iterations of both physicist and feline. Conversely, Orpheus and Eurydice's entanglement posits that the bard's spinning around determines both his status as beloved or bereaved and that of his lover as alive or dead. Orpheus is accountable for the measured outcome of his face-to-face with Eurydice, and for the haunting elusiveness of the event that does not come to matter in their entanglement.[12] Quantum physicist Karen Barad expands from Lévinas, for whom "responsibility is not a relation between two subjects," but, "rather, the otherness of the Other is given in responsibility" (Barad 2007, 392) by equating responsibility with entanglement. By so doing, she formulates an ethics that makes any material—and hence not necessarily human—agency in entanglement responsible for what comes to exist: therefore, Barad's contention that "accountability and responsibility must be thought in terms of what matters and what is excluded from mattering" (394) in addition to being consistent with quantum physics, expands from Lévinas' Orphic ethics, thereby positing a generalized rather than anthropocentric understanding of a then *vatic* environmentalism where the operation of a discriminating agential cut between what exists or not—for instance, the potential Anthropogenic determination of what species

[12] Barad argues that this relation of complementarity is an ontology of conjuring (both as dismissal and invitation), that is, a hauntology in Derrida's sense of the term (Barad 2010, 252-253; Derrida 1993, 10, 63, 202). In addition, Plotnitsky explains that Werner Heisenberg, a founder of quantum theory, was a precursor to deconstruction philosophy, because his critique of classical science is "analogous to Derrida's decentered 'play' and/as the inaccessible efficacity of différance and, correlatively, or indeed correlative to the irreducible role of technology and 'writing' in Derrida's extensive sense of the term" (Plotnitsky 2002, 226).

go extinct or get (re)created—is the poetic and prophetic performance of a physical reality in becoming for which the "cutting" or determining agent bears ethical responsibility.

Coda: Toward Performative Democracy

Thus, Orpheus' lyre is an interdisciplinary instrument of diffraction thanks to which the cross-cultural, syncretic superposition of quantum physics, twentieth-century philosophy, and literature becomes significant, insofar as it shows that quantum definitions of the phenomenon and the philosophies of Derrida and Levinas can be patterned on and historically related to a mythological, Orphic perception of the physical environment and the responsibilities that it entails. In other words, the places in which these ontologies of knowing and knowledges of ontology overlap suggest that acknowledging the performativity of entanglement as constitutive of (environmental) reality and its possible futures is both an ethical imperative or responsibility—without which there can be no justice—and a poetic matrix that may be called "vatic environmentalism."[13]

As such, vatic environmentalism coheres with the idea that the performativity of entanglement supersedes worldviews based on assumptions of inherent separability, or *scale*, as the basis for objective representation and, therefore, suggests that achieving ecological justice in the Anthropocene might, incidentally, require a reconsideration of legality and the institution of performative, rather than representative, democracy (Matynia 2009, 5).

Bibliography

1. Abplanalp Markus et al. (1996), "The ORPHEUS Dark Matter Experiment", *Nuclear Instruments and Methods in Physics Research*, A (370), pp. 227-229.
2. Baker Traubitz Nancy, (1976), "Myth as a Basis of Dramatic Structure in Orpheus Descending", *Modern Drama*, 19 (1), pp. 57-66.

[13] As opposed to Orphic, the adjective "vatic" detaches the idea of poetic prophecy from the masculine, human and European character of Orpheus, thereby allowing for an acknowledgment of Orphic reality that is not necessarily biased by gender, anthropocentrism, or Eurocentrism. However, the mythological genealogies underlying the language being used cannot be circumvented (Derrida 1971, 11): one cannot use English, or French for that matter, and avoid relying on the word "vatic"—at the risk of conjuring its Greek and Roman mythological backgrounds—to designate what is both poetic and prophetic.

3. Banchetti-Robino Maria Paula (2011), "Black Orpheus and Aesthetic Historicism: On Vico and Negritude", *Journal of French and Francophone Philosophy*, 19 (2), pp. 122-135.
4. Barad Karen Michelle (2007), *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham: Duke University Press.
5. Barad Karen Michelle (2010), "Quantum Entanglements and Hauntological Relations of Inheritance: Dis/Continuities, SpaceTime Enfoldings, and Justice-to-Come", *Derrida Today*, 3 (2), pp. 240-268.
6. Barber Michael D. (2001), "Sartre, Phenomenology and the Subjective Approach to Race and Ethnicity in 'Black Orpheus'", *Philosophy and Social Criticism*, 27 (3), pp. 91-103.
7. Bauer Mathias (1993), "Orpheus and the Shades: The Myth of the Poet in David Copperfield", *University of Toronto Quarterly*, 63 (2), pp. 308-327.
8. Belmont Claire (1985), "Orphée Dans Le Miroir Du Conte Merveilleux", *L'Homme*, 25 (93), pp. 59-82.
9. Blanchot Maurice (1982) "Orpheus' Gaze", [in:] *The Space of Literature*, trans. Ann Smock, London: University of Nebraska Press Lincoln, pp. 171-177.
10. Bowers Maggie Ann (2004), *Magic(al) Realism*, The New Critical Idiom, London, New York: Routledge.
11. Bricault Laurent, (2006) "Isis, Des Eaux Du Nil à Celles de Là Méditerranée", *Cahier de La Villa Kérylos*, 18, pp. 261-269.
12. Cain Thomas H. (1971), "Spenser and the Renaissance Orpheus", *University of Toronto Quarterly*, 41 (1), pp. 24-47.
13. Cappetti Carla (2001), "Black Orpheus: Richard Wright's 'The Man Who Lived Underground", *MELUS*, 26 (4), pp. 416-468.
14. Cellier Léon (1958), "Le Romantisme et Le Mythe d'Orphée", *Cahiers de l'Association Internationale Des Etudes Françaises*, 10, pp. 138-157.
15. Chakrabarty Dipesh (2009), "The Climate of History: Four Theses", *Critical Inquiry*, 35 (2), pp. 197-222.
16. Chaucer Geoffrey (1971) *Troilus and Criseyde*, London: Penguin Classics.
17. Cochrane Kirsty (1968) "Orpheus Applied: Some Instances of His Importance in the Humanist View of Language", *The Review of English Studies*, 19 (73), pp. 1-13.
18. Cocteau Jean (1930), *Le Sang d'un Poète*.
19. Cocteau Jean (1950), *Orphée*.
20. Cocteau Jean (1959), *Le Testament d'Orphée*.
21. Coleridge Samuel Taylor (1817), "Chapter XIV", *Biographia Literaria*, [online] http://www.gutenberg.org/files/6081/6081-h/6081-h.htm#link2HCH0014.
22. Courbot Leo (2019), *Fred D'Aguiar and Caribbean Literature: Metaphor, Myth, Memory*, Cross/Cultures: Readings in Post/Colonial Literatures and Cultures in English, vol. 208, Leiden, Boston: Brill/Rodopi.
23. Curtis Jared (1987), "Wordsworth and 'The Banished Negroes'", *The Wordsworth Circle*, 18 (3), pp. 144-145.
24. Dekens Julie (2011), "Réécrire l'Origine Poétique Au XXème Siècle: L'Expérience Du Bestiaire Ou Cortège d'Orphée de Guillaume Apollinaire", *Etudes Littéraires*, 42 (1), pp. 37-50.
25. DeLoughrey Elizabeth (2007), "Quantum Landscapes", *Interventions*, 9 (1), pp. 62-82.

26. Delsigne Jill (2012), "Reading Catholic Art in Edmund Spenser's Temple of Isis", *Studies in Philology*, 109 (3), pp. 199-224.
27. Derrida Jacques (1974), "White Mythology: Metaphor in the Text of Philosophy (1971)", *New Literary History*, 6 (1), pp. 5-74.
28. Derrida Jacques (1982), "Différance", *Margins of Philosophy*, trans. Alan Bass, Chicago: University of Chicago Press, pp. 3-27.
29. Derrida Jacques (1996), *Le Monolinguisme de l'Autre, Ou, La Prothèse d'Origine*, Paris: Incises, Galilée.
30. Derrida Jacques (2006), *Specters of Marx: The State of the Debt, the Work of Mourning and the New International*, Routledge Classics, New York: Routledge.
31. Fairlie Alison B. (1970), "Le Mythe d'Orphée Dans l'Oeuvre de Gérard de Nerval", *Cahiers de l'Association Internationale Des Etudes Françaises*, 22, pp. 153-168.
32. Fanon Frantz (2010), *Les Damnés de la Terre*, La découverte poche 134, Paris: La Découverte.
33. Ferenczi Sándor (2002), *Thalassa: Psychanalyse Des Origines de La Vie Sexuelle; (Precede de) Masculin et Feminin*, Paris: Fayet.
34. Gale Monica R. (2003), "Poetry and the Backward Glance in Virgil's 'Georgics' And 'Aeneid'", *Transactions of the American Philological Association (1974-)*, 133 (2), pp. 323-352.
35. Glissant Édouard (1997), *Poetics of Relation*, ed. Betsy Wing, Ann Arbor: University of Michigan Press.
36. Gonzales Antonio (1996), "Autour d'Isis: Acquis et Nouvelles Perspectives", *Dialogues d'Histoire Ancienne*, 22 (2), pp. 153-164.
37. Graver Bruce E. (1991), "Wordsworth's Georgic Beginnings", *Texas Studies in Literature and Language*, Romans and Romantics, 33 (2), pp. 137-159.
38. Grojnowski Daniel (1981), "Apollinaire-Orphée: Sur La Poétique d'Alcools", *Romantisme*, Poétiques, 33, pp. 91-108.
39. Gros Louis Kenneth R. R. (1966), "Robert Henryson's Orpheus and Eurydice and the Orpheus Traditions of the Middle Ages", *Speculum*, 41 (4), pp. 643-655.
40. Gros Louis Kenneth R. R. (1967), "The Significance of Sir Orfeo's Self-Exile", *The Review of English Studies*, 18 (71), pp. 245-252.
41. Gros Louis Kenneth R. R. (1969), "The Triumph and Death of Orpheus in the English Renaissance", *Studies in English Literature, 1500-1900*, 9 (1), pp. 63-80.
42. Hall Stuart (1990), "Cultural Identity and Diaspora", *Identity: Community, Culture, Difference*, ed. Jonathan Rutherford, London: Lawrence and Wishart, pp. 222-237.
43. Harris Wilson (1996), "The Open Door", *Journal of Modern Literature*, 20 (1), pp. 7-12.
44. Harris Wilson (2010), *Palace of the Peacock*, ed. Kenneth Ramchand, London: Faber and Faber.
45. Hobbes Thomas (1909), "Of Imagination", *Leviathan*, Oxford: Clarendon Press, pp. 13-18.
46. Hugo Victor (1889), "Horreur Sacrée", Les Quatre Vents de l'Esprit: Nouvelle Édition Augmentée, Genève: Arvensa Éditions, pp 354-356.
47. Hurley Dan (May 2013), "Grandma's Experiences Leave a Mark on Your Genes", *Discovery Magazine*.
48. Huxley Aldous (1964), *Collected Essays*, New York: Bantam Books.

49. Jacques Tomaz Carlos Flores (2011), "Philosophy in Black: African Philosophy as a Negritude", *Sartre Studies International*, 17 (1), pp. 1-19.
50. Lamson Brandon (2010), "Orpheus Descending: Images of Psychic Descent in 'Hades' and 'Circe'", *Joyce Studies Annual*, pp. 254-261.
51. Leadbetter Gregory (2016), "Marked by Secret Knowledge", *Times Literary Supplement*, 2016, [online] https://www.the-tls.co.uk/articles/marked-by-secret-knowledge/.
52. Lévinas Emmanuel (2009), *Totalité et Infini: Essai sur l'Extériorité*, Livre de Poche Biblio essais 4120, Dordrecht: Kluwer Academic.
53. Levinson Marjorie (1986), "Insight and Oversight: Reading 'Tintern Abbey'", *Wordsworth's Great Period Poems: Four Essays*, Cambridge: Cambridge University Press, pp. 14-57.
54. Martindale Charles (1985), "Paradise Metamorphosed: Ovid in Milton", *Comparative Literature*, 37 (4), pp. 301-333.
55. Matynia Elżbieta (2009), *Performative Democracy*, Boulder: Paradigm Publishers.
56. McDaniel Lorna (1990), "The Flying Africans: Extent and Strength of the Myth in the Americas", *New West Indian Guide*, 64 (1/2), pp. 28-40.
57. Melville Pauline (1997) "Wilson Harris 'In the Forests of the Night'", *Review of Contemporary Fiction*, 17 (2), pp. 50-52.
58. Melville Pauline (2013), "Guyanese Literature, Magic Realism and the South American Connection", *Wasafiri*, 28 (3), pp. 7-11.
59. Milton John (1637), "Lycidas", [online] http://spenserians.cath.vt.edu/TextRecord.php?action=GET&textsid=33389 [accessed: 16.09.2020].
60. Misrahi-Barak Judith, Joseph-Vilain Mélanie (eds.) (2012), *Another Life/Une Autre Vie*, PoCo Pages, Horizons Anglophones, Montpellier: PULM.
61. Oakley Seanna Sumalee (2011), *Common Places: The Poetics of African Atlantic Postromantics*, Amsterdam, New York, NY: Rodopi.
62. Ovid (2009), *Metamorphoses*, ed. E. J. Kenney, trans. A. D. Melville, Oxford: Oxford University Press.
63. Pace Joel (2017), "Afterthoughts: Romanticism, the Black Atlantic, and Self-Mapping", *Studies in Romanticism*, 56 (1), pp. 113-123.
64. Plotnitsky Arkady (2002), *The Knowable and the Unknowable: Modern Science, Nonclassical Thought, and the "Two Cultures"*, Ann Arbor: University of Michigan Press.
65. Poirier Patrick (2001), "De l'Infigurable Visage Ou d'un Langage Inconnu Chez Lévinas et Blanchot", *Etudes Françaises*, 37 (1), pp. 99-116.
66. Powledge Tabitha M. (2011), "Behavioral Epigenetics: How Nurture Shapes Nature", *BioScience*, 61 (8), pp. 588-592.
67. Richardson Alan (1993), "Romantic Voodoo: Obeah and British Culture, 1797-1807", *Studies in Romanticism*, 32 (1), pp. 3-28.
68. Rilke Rainer Maria (1962), *Sonnets to Orpheus*, trans. Mary D. Herter, New York: Norton.
69. Sartre Jean-Paul (1948), "Orphée Noir", *Anthologie de La Nouvelle Poésie Nègre et Malgache de Langue Française*, Paris: Presses Universitaires de France, pp. ix-xliv.
70. Shelley Mary (1960), *Frankenstein, Or, The Modern Prometheus*, London: Everyman Paperback.

71. Shelley Percy Bysshe (2004), "A Defence of Poetry", *A Defence of Poetry and Other Essays*, [online] https://www.gutenberg.org/files/5428/5428-h/5428-h.htm [accessed: 16.09.2020].
72. Smith Ian (2002), "Misusing Canonical Intertexts: Jamaica Kincaid, Wordsworth and Colonialism's 'AbsentThings'", *Callaloo*, 25 (3), pp. 801-820.
73. Spiquel Agnès (1999), "Isis Au XIXème Siècle", *Mélanges de l'Ecole Française de Rome*, Italie et Méditerranée, 111 (2), pp. 541-552.
74. Stratham Christopher A. (2009), "Byron's Orphic Poetics and the Foundations of Literary Modernism", *Texas Studies in Literature and Language*, 51 (3), pp. 361-382.
75. Villeneuve Johanne (2004), "Orphée Au Brésil: L'Imaginaire Européen à l'Epreuve de La Danse", *Cinémas: Revue d'Etudes Cinématographiques*, 15 (1), pp. 105-122.
76. Virgil (2008), *Georgics*, Vol. 4, [online] https://www.gutenberg.org/files/232/232-h/232-h.htm [accessed: 16.09.2020].
77. Ward Abigail (2015), *Caryl Phillips, David Dabydeen and Fred D'Aguiar: Representations of Slavery*, Manchester: Manchester University Press.
78. Wehrs Donald R. (Autumn 2003), "Sartre's Legacy in Postcolonial Theory; Or, Who's Afraid of Non-Western Historiography and Cultural Studies?", *New Literary History*, 34 (4), pp. 761-789.
79. Whitehead Anne (2008), "Journeying through Hell: Wole Soyinka, Trauma, and Postcolonial Nigeria", *Studies in the Novel*, 40 (1/2), pp. 13-30.
80. Wordsworth William, Coleridge Samuel Taylor (2005), *Lyrical Ballads*, eds. R. L. Brett and Alun R. Jones, Routledge Classics, London, New York: Routledge.
81. Wu Duncan (1996), "Navigated by Magic: Wordsworth's Cambridge Sonnets", *The Review of English Studies*, 49 (183), pp. 352-365.
82. Young Elizabeth Marie (2008), "Inscribing Orpheus: Ovid and the Invention of a Greco-Roman Corpus", *Representations*, 101 (1), pp. 1-31.
83. Zamora Lois Parkinson, Faris Wendy B. (eds.) (1995), *Magical Realism: Theory, History, Community*, Durham, N.C.: Duke University Press.

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Nature's Imagination: Reveries of Connection and Persistence

Abstract

Nature's imagination has been conceived in an allegorical or humanist fashion. This paper argues for a natural imagination in actuality as a radical counterpoint to status-quo concepts of sustainability. The self-hood of non-human beings and the necessity of connection in the natural world are addressed and related to a philosophy of becoming. This paper insists on a material semiotics constituted through the willful aspect and imaginative capacity of all life forms. Maintaining the primacy of relationship, terra-consciousness may provide an imaginative antidote to our all-too-human alienation from non-human entanglement in the Anthropocene.

Keywords

Nature's Imagination, Sustainability, Material Semiotics, Symbiosis, Becoming, Ecosystems, Onto-ecology

The world is an immense Narcissus in the act of thinking about himself.

Joachim Gasquet[1]

We live in a science-fiction world. The rate of our technological progress, even in the last 30 years, is truly staggering. Our tools have imparted us with super-human abilities. My phone has endowed me with a borderline telepathic capacity to find and access information, goods, and services. Embedded as we are in the forward march of progress, we don't consider the ways

[1] As quoted in Bachelard 2006.

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such technology has become a part of us. We would do well to heed the Sphinx's riddle to Oedipus. She knew, as we often forget, that our tools become incorporated into our being. The old man's cane is properly his third leg, for he cannot walk without it. What walks on four legs in the morning and thinks with two brains for the rest of the day?

With the rise of our technological dependence (beyond and before cell phones), we have forgotten other matrices of dependence we are entangled in. The realities of our social and economic lives are thoroughly entangled with our technology to the point of inseparability. But what of our natural life? What of the whole of life on this planet? Despite living in a world seemingly dreamed up in science-fiction, our technocrats do little reflection on the state of affairs, preferring the cacophonous march of progress to quiescent contemplation.

By way of reflection, I turn to Isaac Asimov, one of the great science-fiction writers of the last century. In a short story called *Green Patches*, he imagines a human expedition to another planet where all life forms live in harmony. They live in harmony because the planet itself (or rather the planet's living biome) is a single organism. Asimov imagines the thoughts of one piece of that organism, a secret stowaway aboard the human vessel. The stowaway's mission: incorporating everything on Earth into a single organism. This organ-piece of the planetary organism calls humans and other animals "life-fragments." It is appalled to learn these fragments compete for food and reproduce with no consideration for ecological carrying capacity. The organ-piece anticipates subsuming all these fragments into one consciousness, harmonious and benevolent. Eventually, this stowaway is unwittingly destroyed, preserving the reign of individualism on Earth (1991).

Now, the idea of my consciousness being subsumed into a single, global Mind sounds rather unattractive to me, but I can't ignore the ecological sense of such harmonious, interdependent living. There are streams of thought crisscrossing through disciplines, from biology and ecology to anthropology and philosophy, attempting to imagine these kinds of harmonies. With my feet in these waters, I hope to engage your imagination as well. To this effect, some may find my course of argumentation philosophically wanting. Yet, what I hope to achieve is sprawled across ethics, epistemology, and ecology. Perhaps it is a materialist cosmology of enchantment, with all the trappings of contemporary academic discourse. So, we will begin with the wolf of environmental degradation and the sheep's clothing of sustainability discourse. After recovering a non-humanist notion of sustainability, I will speak of be-

coming and transforming to decenter our commonly held notion of self. Then I move into a discussion of the perceptive and cognitive capacities of non-humans, through their willful aspect, in relation to material semiotics. This will be further refined through a section on imaginative mimesis. In the following section, I explore the connections at the heart of what it means to live on this planet and our human alienation from those processes of connection. In conclusion, I extend the hope of nature's imagination and where, as human life-fragments, we might place ourselves within a terra-consciousness, as *natura naturans.*

Sustainability and Degradation

Sustainability is a universally acclaimed concept. Having achieved the status of a buzzword, it legitimizes any project affixed to it. Visions of "sustainable futures" dance in the minds of loquacious businessmen and conservationists alike. Who could be opposed to a sustainable business model? Sustainable agriculture? Sustainable conservation? Sustainable development? However, with astounding ubiquity come endless circulations of definition. In business, sustainability has become roughly synonymous with simple economic solvency. A sustainable business is a self-reproducing one. In development work, a sustainable project comes to be defined in roughly the same terms if it can achieve self-sufficiency. When we turn to environmental sustainability, we still observe a generally economic conceptualization of "natural resources" or even "natural beauty." We hold the Earth as a trust-fund (Ingold 2016). The question becomes: What is the most we can extract without decimating the resources necessary for our children's survival? The discursive category of natural resources belies our inability to see the entanglement of Earth's processes (Tsing 2015, Latour 2018). The only way it is possible to engage in something like strip mining is by assigning an economic value to the "resource" such as coal, diamonds, uranium, etc. and then ignoring as incidental "negative externalities" the degradation of a local water supply and deforestation. This is a hallmark of status-quo sustainability discourse. We have needs, corporations have interests, states need revenue, and the Earth must be preserved insofar as it can continue to provide the raw materials for the growth of human civilization. However, it is the growth of human civilization that is degrading the Earth. We are like a hapless cartoon character in a tree sawing away at the very branch on which he sits. He won't need to saw all the way through before the branch will break and send him tumbling down.

In response to environmental degradation, some ecologists have begun assigning price tags to ecosystems. Ecological economics has estimated the value of Earth's major ecosystem services at $33 trillion annually, almost twice the global GDP. Rainforests are valued at $5 trillion. Coral reefs are in the billions. These estimates are based upon how much it would cost to manufacture and maintain carbon capture systems, erosion inhibitors, sea walls, wildlife sustenance, and other "services" provided by these ecosystems (McCarthy 2015). While placing monetary values on natural ecosystems gives accountants and CEOs pause the world over, the specter of ecosystem ownership looms. Placing a price tag, however astronomical, on the Great Barrier Reef implies that it may be purchased. It is difficult to imagine a more dystopian future than multinational corporations purchasing the great natural wonders only to bulldoze them into economically sanctioned oblivion.

The arithmetic of profit and loss cannot be applied to the natural world, nor, rightly considered, to human relations. To borrow the title from one of Tim Ingold's lectures, we need to reorient ourselves towards the sustainability of everything. Status-quo sustainability is simply untenable. No thing is self-sufficient. No system is closed. We live inside open worlds (Kohn 2015, Ingold 2011a). To sustain is to contribute to the persistence of being, to continue the existence of a being. It is common sense that no living thing can persist in and of itself. Even if I might escape the crush of the city and live in the woods, I must still find sustenance in the food I eat, the water I drink, and the air that I breathe. The same holds true for all forms of life.

Yet, if I went into the forest, inhabited a specific ecosystem, and sustained myself there, it would be conventionally assumed that I had left the realm of human activity. However, the towns or factories upstream of my water source, the smokestack belching carbon into the jet stream, or the chemical pesticides airborne from neighboring agribusiness argue to the contrary. We have enveloped the whole world in a destructive sociality. It is not just the hypothetical hermit who is effected: there are beings and life-systems in more delicate symbiotic balances than we can appreciate as *homo economicus*.[2]

The sustainability of everything should destabilize the centrality of human persistence in the world. In 2008, Ecuador carved the rights of nature into its new constitution. This was partially in response to the crimes of

[2] As humans, we are assumed to act in rational, self-interested ways in order to maximize our capital-inscribed utility. As any human knows, this kind of human does not exist, but our world, our policies, and even our understanding of ourselves are influenced by this conception.

Texaco-Chevron, who began extracting oil from the upper Amazon region in the late 1960s. The consortium of oil companies ignored regulations from the American Petroleum Institute and used an outdated remediation system instead of the latest technology that Texaco had itself patented. The resulting millions of gallons of toxic waste were simply dumped into the Amazon river network. Toxic sludge was buried in pits dug for this purpose and an export pipeline to the coast was constructed (Cely 2014). In this brief overview, I cannot elucidate the catastrophic damage done to that ecosystem. Instead, imagine the army of bulldozers, dump trucks, and steamrollers. The roar of chainsaws and the stench of asphalt. What could survive this destruction? Profit took precedence over the persistence of myriad flora and fauna. We cannot expect, in a world where the only morality is human interest, that environmental concerns will triumph over the trifecta of human needs, corporate interests, and state revenues. It is admirable to uphold the rights of nature and we should look to Ecuador and other countries with similar convictions in their governmental texts for policy guidance. The difficulty, of course, arrives with the primacy of human survival and action. The world runs on fossil fuels, how can we justify coming to a screeching halt for the benefit of some trees and animals? There needs to be a more radical awareness of our inextricable entanglement in the natural world, otherwise the human race will be hard-pressed to carry on.

Persistence and Transformation

Persistence cannot occur without transformation. We are continuously changing. For a being to persist, it must ingest, digest, and incorporate (Haraway 2016). In other words, it must make that which was other part of itself. The mighty oak tree starts as an acorn. Incorporating water, nutrients from the soil, carbon dioxide from the atmosphere, and light from the sun (i.e.: "others"), the acorn becomes a seedling, then a sapling, and so on, through its life cycle. This is common knowledge with metaphysical resonance. According to the Greek philosopher Heraclitus, "No man ever steps into the same river twice" (as quoted in Plato, 402a). The implication goes far beyond the impermanence of water. We can say that no person sees the same oak tree twice. For at any given moment, the oak tree is in the process of becoming, incorporating things that were other than it and unincorporating things that were of it.

Another classical thinker, Lucretius, wrote "the seeds of things are all moving forever, the sum of them is completely still" (as quoted in Ingold 2016). Our atoms, the "seeds of things," are continually in motion. Motion

begets life and life begets motion. Such movements happen at different scales, both spatially and temporally, but nothing is still. Everything flows along continuums of intensity (Deleuze, Guattari 1987). In death there is dissolution. This movement of becoming allows us to notice transformation in the active sense of "mingling" (Ingold 2011a). Returning to the previous formulation, I also partake: ingest, digest, and incorporate. Whether it is the air I breathe binding to the blood pulsing through my veins, or the water I drink lubricating and filling those veins, or the food I eat building the muscles with which I move, I am continually transformed through intermingling. We are all continually transformed.

If we consider transformation as a kind of mingling, new ways of looking at our environment open. We can no longer conceive of the world as filled with discrete objects. Every thing is receptive in its movement, in flux. Wind breaks the mountain even as the mountain forces the wind into swirls and eddies, forming banks of clouds and pressure systems. Water cuts rivulets into the Earth while the dry dirt soaks up the moisture. Bits and pieces are carried away only to be deposited elsewhere. Hills rise and fires dance. There are no boundaries - things exist only as temporary crystallizations of movements and intensities (Deleuze, Guattari 1987). Because there are no boundaries, there are no objects (Ingold 2011a). We live *inside* Terra, Gaia, the global biome, not on the surface of a spinning blue-green marble (Latour, Aït-Touati 2018). We experience the mutual permeability of our home as we incorporate it into ourselves and it incorporates us (and all we create) into itself.

Perception and Intention

If no being is static and unchanging, all beings are becomings. Becomings must be sustained in order to persist. This act of sustaining can be receptive or appropriative. Making a qualitative distinction between degrees of animation,[3] either of these modes can be willful or not. A mountain does not seek to reproduce itself, it is produced by external forces. All life forms, however, must intend to survive and receive sustenance. How can I claim that plants,

[3] Following from my earlier point on the movement or animation of all things, we can make a qualitative distinction between biological life and what we usually conceive of as inanimate objects. Introducing a "spectrum of animation" is reductive, yet placing a mountain, a river, a sunflower and a wolf along such a spectrum would not prove too difficult. I use it as a rhetorical strategy rather than a biological claim.

for example, have intention, or a "willful aspect"?[4] First, all life forms have sensory abilities of some variety. Watch a sunflower tilt its head toward the warmth of the sun. Observe a tree contorted to reach the sunniest spot through a break in the forest canopy. Yet this is not simply reducible to sense, for sense is not the same as perception. Perception is the process of taking in the cluster of sensory data and simultaneously discovering the meaning they possess and investing them with meaning (Merleau-Ponty 1981). Perception is directly related to action. As Merleau-Ponty describes, "sensations […] are enveloped in a living significance" (1981, 209). The perceiver, body entangled in the world, communes with things in their practical significance (ibidem).

To put it another way, this sensory data is information. According to Gregory Bateson, the elementary unit of information is "a difference which makes a difference" (1972, 460). The difference between light and darkness or between cold and heat—the difference between the white of the page and the black of the ink—make another difference as a life-form selects a single difference from among a theoretically infinite number of differences. This selection of difference creates another difference in the sequence of transformations that constitute living. Information, then, does not exist in itself, rather it is the transform of a difference. Only living things can make such transformations of difference, but these transformations are not unidirectional—moving only from exterior to interior. Instead, they are caught up in circuits of organism-plus-environment (ibidem), caught up in relationships of living significance. Sensory input, as difference, in its selection through the attentiveness of perception, activates transformations from difference to difference in complete (but not closed) circuits. So, the sunflower turns toward the sun's warmth and you respond to the written word.

Primary perception, what I have been describing, is a non-positing, pre-personal, pre-objective, and pre-conscious experience (Merleau-Ponty 1981). The "phenomenal body" (ibidem, 232) of perception is distinct (though inseparable) from the thinking subject. This body is responsible for the synthesis of sense data for perception. In synthesizing, the phenomenal body brings its various resources together in a unifying synergy to form an intention. This intention is not a thought, "but takes for granted all the latent

[4] The term "willful aspect" denotes "the appearance of intention". While acknowledging the limits of knowledge about the interiority of a non-linguistic Other, I believe there is still a case to be made for all living things possessing a degree of intentionality. When I use the term "willful aspect," it describes both the presentation of intentionality and acknowledges a potentially piecemeal, divided interiority.

knowledge of itself that [the] body possesses" (ibidem, 233). The senses are unified not through consciousness but through their perpetual incorporation into the knowing organism (ibidem). Thus, sunflowers are also perceiving life forms and possess pre-conscious intentionality in their primary perception.[5]

Let us take as an example the slime-mold *physarum polycephalum*. This slime-mold is a large, single-cell organism. The organism's multi-nucleic center has tube-like appendages that it uses to feed itself. A group of researchers placed it in a maze with two food sources. Not only was it able to find both food sources, it also rearranged itself into one long tube connecting the food sources through the shortest route in the maze. The scientists concluded this was a kind of calculation and thus a kind of intelligence (Nakagaki et al. 2000). This simple organism, in its calculation (in Bateson's terms, the selection of differences which will make a difference for it), exhibits preconscious intentionality and thus a willful aspect.

Material Semiotics

Now, when we consider multicellular organisms with brains, the animal kingdom, we find other selves. Animals are interpreters as well as perceivers. By attending to the lifeworld they find themselves in, animals persist through a complex sociality that is inter- and intra-species. An animal has a perspective that ascribes meanings to processes of survival, reproduction, and sustenance (Ingold 2011b). Meaning here does not demarcate that which is signified by a given signifier. Rather a sign "stands to somebody for something in some respect or capacity" (Peirce, quoted in Kohn 2015, 74). Moreover, "signs designate only a certain formalization of expression in a determinate strata" (Deleuze, Guattari 1987, 78). In this way, meanings are means—"stand-ins" or waypoints—of expression within groups of somebodies to achieve an end. These expressions may take on formal symbolic aspects, as in language, or non-symbolic orders of magnitude, as in analogic animal communication (Bateson 1972). The scent of certain flowers stands for something (the flowers) to the bees that drink their nectar. The sound of

[5] The phenomenal body, as it exists in the realm of phenomenology, seems to be only applicable to the human subject. However, elsewhere in Phenomenology of Perception and The World of Perception, Merleau-Ponty acknowledges the perceiving interiority of insects and animals (1981, 78, 87 & 2004, 58-59). We of course cannot speak of an animal's experience of phenomena, so I will not speak of non-human phenomenal bodies, but the implications of non-conscious intentionality reverberate throughout this analysis.

a crashing tree means something to a bird or a monkey nearby. The magnitude of these scents and sounds also means something to the perceiver—proximity, perhaps.

These material semiotics are integral to the construction of selves and their navigation through the world (Kohn 2015, Haraway 2016). Eduardo Kohn argues for a hierarchy of Peircian signs moving from the iconic (forgetting difference) to the indexical (cataloguing similarity) to the symbolic (relating indices) (2015, 52-53). Simply put, humans communicate with other humans and with non-humans through nested sets of semiotic meaning. The aforementioned crashing tree comes from a story in Kohn's book *How Forests Think*. The tree was cut down by a man in the hope of making a monkey move from its sheltered perch to give his son a clear shot for the kill. The crashing sound of a tree is perceived and interpreted by the monkey. That particular crash is iconic with other crashes, those previous crashes have been iconically indexed with dangerous situations, and these are all indexed together so that the monkey assumes "danger" is present. As such, the human and monkey are communicating in the realm of signs as the monkey makes associative leaps and then physically leaps away from the sound of the falling tree (Kohn 2015).

Here, material semiotics is simultaneously a process of semiosis and a quality of nature.[6] If we must adhere to the language of signified and signifier, material semiotics could be understood as the quality and process by which one collapses into the other. In the natural world, a sign can be simultaneously signified and signifier. More precisely, the meaning of a material sign is coextensive with its material qualities and inseparable from them. "A rose is a rose is a rose." Yet, living things require, as already asserted, "others" to persist. So, the process of living necessarily ascribes meanings through material semiosis to navigate a world of "others." In this way, material semiotics requires the intent to relate. This intention is necessary if I am to take this rose that is always-already only a rose and use it as a token of love for another. Before this, however, the rose must itself have an intent to relate to the sun if it is to transform the difference between heat and cold into a meaningful, living significance.

At a deeper level, processes of double articulation inaugurate codes of self-organization. Milieus affect organisms via selection, sanctioning certain codifications. These codes can be 'read' by those somebodies who intend to relate with the somethings the codes articulate. Milieus articulate the organ-

[6] This simultaneity is inherent to an understanding of "nature naturing," *natura naturans*, as necessarily processual, in a constant state of becoming and transformation.

isms who then articulate the milieu (Deleuze, Guattari 1987). Ant colonies organize themselves via articulations of code in the dirt. A piece of this articulated code, tunnels, in turn, articulates the anteater's snout (Kohn 2015). As the signifier and signified collapse into one another at the horizon of meaning, the interpretant may itself become a sign in the course of interpretation. Content and expression follow along with this double articulation (Deleuze, Guattari 1987). So, it is by way of material semiosis that our symbolic linguistic ability emerges. Through attaching certain human sounds to signify indices of material icons and subsequently relating these human sounds to one other in nested symbolic-indexical associations, we arrive at human language (Kohn 2015). Thus, human intelligence, the life of the mind and language, is inseparable from the natural world from which it emerges, "the prehuman soup immersing us" (Deleuze, Guattari 1987, 73). "The individual mind is immanent but not only in the body. It is immanent also in pathways and messages outside the body; and there is a larger Mind of which the individual mind is only a sub-system" (Bateson 1972, 468). All of life can participate in semiosis and interpretation. In this way, we can understand that all lifeforms "think" in this non-linguistic, material-semiotic fashion (Kohn 2015). We all think in, with, and through our environment (Ingold 2011b). Even organisms without brains are still perceiving—interpreting and reacting to certain indices of material icons. These icons and indices of icons *mean* something to such organisms, and these organisms in turn *mean* something to others. As all living beings endeavor to give shape to a world from which they emerge (Merleau-Ponty 2004), I insist upon a willful aspect being present in all life forms.

Imaginative Mimesis

Of course, we understand human will predicated upon a conscious self, "*I* will do such-and-such today." The willful aspect for non-self-conscious organisms maintains their perspective of intentionally interpreted, semiotically meaningful sense data, and is augmented through what I call imaginative mimesis. The imagination is the predecessor of will. Consider our human imagination, we construct images beyond reality (Bachelard 2006). Those imaginings can become reality only through the exercise of will. This will must be exercised on matter. I imagine a sandcastle, I must interact with the sand to make the castle a reality. The initial material absence of the thing imagined is a pre-requisite for the imagining. Let us call this a "constitutive absence" (Kohn 2015, 37), the realness of potentiality. An absent future inflects present action. However, an absence of material constrains the imagi-

nation. A child completely unfamiliar with sand could imagine a castle, but not a sandcastle. Therefore, imagination must be grounded in the material world, manipulating matter into form and filling form with matter (Bachelard 2006) even as matter takes form of its own accord and stimulates the imaginative process (Kohn 2015).

To move the imagination away from self-consciousness, we briefly turn to dream. It is impossible for a dream to convey indicative statements. Through pattern recognition, a dreamer may come to understand that the sun is shining in her dream, but for a variety of reasons the dream cannot assert "It is sunny." This is because there is no meta-communicative frame within which to establish any difference between the literal and the metaphorical (Bateson 1972). Imagination reaches into the unconscious in analogic fashion. In other words, dream proposes patterns but is incapable of negating or affirming them.[7] Negation, in contrast to the analogic communication of animals, requires the digital communication of language (ibidem). To use Bateson's example, a dog may show its fangs—a signal for combat, an icon of a bite—but cannot iconically indicate "I will *not* bite you" (ibidem, 432, emphasis mine). Rather, the negation can only be arrived at through the simulation of the activities of a fight to the point that both animals understand that no harm is meant. We call this play. There is a continuity between the state of dreaming and the communication of animals in their shared iconicity. This permits a kind of self-hood that skirts the problems of the Cartesian *cogito.* The Cartesian view of the self, besides needing language, needs a thinking self that is aware it is thinking. A dreamer maintains a perspective, an "I" position, without needing to be aware of the dreaming. Similarly, animals can maintain a perspective[8], or self-hood, through the proposal of a pattern of their existence, without requiring the meta-communicative frame to affirm or deny the proposition. In this sense, I diverge from Kohn's "thinking" forests in favor of imaginative ability as a locus of self-hood. Material semiosis should be understood as an imaginative (rather than and prior to the rational or linguistic) process of intention concerning those codes and articulated patterns that accrue meanings for groups of somebodies.

[7] The self-conscious lucid dreamer could, in fact, come to such an indicative negation or affirmation, but only insofar as he or she can first establish the meta-communicative frame: "I am dreaming," "This is *not* real."

[8] De Castro's "perspectivism" implies that self-hood can be extended to those beings which maintain a perspective. That thing which occupies a point of view is both semiotically creative and created—a self—even in the absence of a linguistic, self-reflexive "I" (De Castro2014, Kohn 2015).

In attempting to give an imaginative capacity to the non-human realm, it is important to deemphasize the visual. The concept of the image evokes exclusively visual sensations. However, we can also imagine sonic aspects even in our predominantly visual reveries. I can imagine the sonic qualities of my mother's voice as I imagine her welcoming me home and what she might say. Our cognitive faculties privilege the visual. However, let us consider a wolf. Its sense of smell is exponentially more powerful and more important than its vision. Could it not experience olfactory images? Through material semiosis, it could. It smells a doe in the woods and that olfactory iconic sign, indexed with previous experiences of the scent, brings the imagination into play. The wolf begins to smell not just the doe, but also the associated scents of the hunt and the kill, the smell of warm blood and a meal.

Imagination is a prerequisite for memory. For Bachelard, experience places us on the "threshold of a daydream in which [we] shall find repose in the past" (2014, 35). Remembering relies on a reconstruction of images in imitation of previous experience, so imaginative capacity comes prior to the remembering. Imagination in this way is even coextensive with sense perception (ibid). Even a rudimentary definition of imagination as "images produced mentally" leads us to assert that sensory perception actively imagines the world around us. What is seeing other than a process of constructing a mental image based on the play of light translated through the retina? (Bateson 1972, Merleau-Ponty 1981). This is the beginning of imaginative mimesis. The mimetic is simultaneously creative and imitative[9] (IJsseling 1997). The wolf will attempt to bring its sensory imagination into being through a process of imitation. It will imitate that which it has done before to experience that image—taking into account and creating the differences between the situations. In animals like wolves, there is the antecedent mimesis of learning to hunt. A wolf must imitate its kin to understand the process of bringing down prey. It is the resulting embodied knowledge, rather than a humanistic concept of memory, that enables it to act mimetically on an imagined potential future. In this way, the imagination provides a way to think about the willful aspect of non-human selves as they carry their perspectives into an imagined future in the absence of a language bound subjectivity.

[9] Additionally, the mimetic is always partially imaginary insofar as the thing imitated is constituted in the imitation. The imitating being does not become the imitated but rather the imagined projection of the imitator upon the imitated (IJsseling 1997). This gives a potentially different meaning to the term imaginative mimesis. I use the term to refer to the process of acting mimetically toward an imagined potentiality.

Symbiogenesis and Human Alienation

In the previous sections, I have been thinking with animals, slime-molds, sunflowers, and humans as bounded individual entities. Despite the persistent intermingling and permeability of our world, it was necessary to crystallize these movements into discrete individuals for a moment. Yet, the impossibility of individuality becomes readily apparent when organisms start involving themselves with each other. It is impossible for us to see the same oak tree twice for elemental reasons: atmospheric incorporation and the like. Furthermore, there is also a host of other living organisms that are coming and going in symbiotic cooperation. Where does the lichen end and the tree begin? Can you untangle the fungal threads from the roots of the tree? Bringing symbiosis closer to home, try to separate yourself from the bacteria in your intestines that allow you to break down the food you eat. It would be impossible. Our survival is predicated on relations with other organisms. Not just the human baker who may provide us with bread, nor just the chicken from whom we collect eggs, but whole colonies of bacteria must live inside us for our continued survival. We have within us other selves, becomings, with perspectives and willful aspects. So, in chorus with Whitman: we contain multitudes! We are holobionts, life-knots of concentrated becoming-with (Haraway 2016). However, we are not very cooperative when it comes to becoming in concert with other selves with whom we are entangled. Too concerned with maintaining our self-hood, we cling to our precious individuality. So, I will call us humans "life-fragments" along with Asimov's organ-piece. Let me explain further.

What makes a cooperative holobiont? One example is the acacia tree. There are many varieties, but all form symbiotic relations with other organisms in their ecosystem. Specifically, one variety of Acacia grows thorny protuberances and secretes nectar to house and feed a species of biting ant. This ant in turn keeps away beetle borers and mammalian leaf eaters. Then we slip down to the roots, where mycorrhizal associations with funghi keep the tree nourished by breaking down inorganic material. The Acacia itself fixes nitrogen in the soil, a specialized but highly necessary task, as most other plants need to extract nitrogen from the soil. These plants in turn feed other animals, secrete other nectars, and continue tangling together the threads of life in ever larger ripples (Haraway 2016). Life, by its very nature, is entangled. All life forms are changing through encounters and persisting through entanglement (Tsing 2017). *Symbiogenesis* is the process by which these various life forms change (become) with and through one another in

intimate connections. Scientific orthodoxy insists complex life arose through the gradual association and incorporation of simpler life forms with and into each other. Mitochondria in our cells are thought to be ancient bacteria that were absorbed and then put to work by early single-celled organisms. These kinds of connections, the processes of encounter, incorporation, entangling, and *symbiogenesis*, are at the heart of the survival strategy for all life forms on Earth. Thus, holobionts are by their nature open: open to new encounters that lead to new connections, to new ways of persisting together, to entangled biodiversity (Haraway 2016).

This basic relational aspect of the world has been utterly overlooked by humans for too long. We are holobionts that close ourselves off to potential entanglements. We fragment ourselves. We are Life-fragments by choice. We exercise our extensive mental faculties to construct languages and philosophies and economic systems that alienate us from connections with a vast array of potential partners in the task of persisting together. In a global capitalist system, living things are forcibly removed from their life-worlds, alienated through various processing and shrink-wrap packaging, and sold as commodities (Tsing 2017). Brussel sprouts are one of my favorite vegetables, but I had never seen what they looked like as they grow. I knew them wrapped in plastic and stacked on refrigerated shelves, at least until I went to a garden in Brussels and saw the funny looking plant. Green leaves shooting out over a stalk with the little sprouts helixing down to the dirt. At that moment, the alienation of the commodity process seemed to work in reverse. I recognized a double alienation. Not only was the vegetable torn from its life world, sanitized, and packaged, I had been too. I had been alienated from the actual process of cooperative sustenance and packaged into concrete and metal. A life-fragment among life-fragments.

Nature's Imagination and Terra-consciousness

I return to the titular concept to trace what I do not mean by nature's imagination. In 1768, J.B. Robinet wrote a text entitled "Philosophical Views on the Natural Gradation of Forms of Existence or the Attempts Made By Nature While Learning to Create Humanity" (Bachelard 2014). A real mouthful, but illustrative of the anthropocentric understanding of nature's imagination in evolutionary biology. The understanding that humankind was somehow the pinnacle of evolutionary activity underpins much of what I write against in this paper. Additionally, the imaginative capacity of nature is often conceived allegorically or anthropomorphically. However, synthesizing the pre-

vious sections, I believe that an argument can be made for nature's imagination as an interlocking system of mingling wills, intentions, and imaginations affecting change in concert.

First, we have our elemental processes. The constant movement of the tectonic plates crashing together and moving apart. Mountains in their rising, winds in their blowing, and tides in their rushing all form and manipulate the terrestrial life-world,[10] stitching together and tearing asunder the soup of matter in which we all move (Ingold 2011a). These elemental processes of life-making are then augmented by organisms constructing their niches and ecosystems. Life makes room for itself. Bacteria released the first gases that began the process of making our atmosphere breathable for multicellular life forms.[11] Fungi broke down rocks into component minerals to allow the first plant life to grow. Those first plants in their living and dying created the organic material for worms to consume. This kind of cooperative evolutionary trajectory expanded the livable space on our planet, allowing more and more life forms to come into being (Latour, Aït-Touati 2018). The end of evolution is biodiversity, not humanity.

In this life-world, meanings are inscribed in the trampled path of a deer through the grassland, the wafting scent of a female dingo in heat on the air currents, or the reverberating sound of a falling tree in the forest. These are neural networks sending information to the hunter, the mate, and the monkey; to all those who intend to relate with this material semiotics. This information network is etched in the land, the air, and the water. Pulsating with life, it facilitates the encounters and entanglements that result in persisting, becoming, and transforming. As living becomings entangle themselves with one another, they do so with willful aspects, through the perception and interpretation of sensual icon-images. Then, through imaginative mimesis, they create the world together. Nature's imagination is not located in a cosmic brain but rather composed of wills and imaginations in tension and harmony. It is a vast, planet-enveloping network connecting nodes of

[10] I don't use biosphere in this essay to avoid the pitfalls of thinking with a globe. Globe thinking implies a position of standing atop a sphere, contributing to our understanding of the natural world as a background when in fact we are inside the thin layer of the inhabitable terrestrial life-world (Latour, Aït-Touati 2018; Ingold 2011a, 2011b, 2016).

[11] Lovelock's Gaia hypothesis suggests that the atmosphere is maintained in a homeostatic state by a global life-form, Gaia (1972). I do not believe it is necessary to posit such a figure. I prefer nature's imagination instead as a concert of wills and selves maintaining such a global homeostasis. Moreover, the equilibrium and harmony implied in his hypothesis obscure nuances of tension and disequilibrium that are not unique to human activity in the world.

becoming as they relate with one another, changing and building the life-worlds they exist within. Instantaneous image brought to life in a moment, a succession of moments, by a collection of intentions in relation.

The salience of the Anthropocene makes clear which wills have been dominating nature's imagination in this epoch. We are of course a part of nature's imagination: we are natural and reliant upon the health of this wafer thin terrestrial ecosystem we call home. Yet we are also life-fragments. Is it necessary for our individuality to be subsumed into a planetary organism as in Azimov's story? Not at all, we are simply primates convinced we are gods. We have forgotten that we emerged from the natural world. Our language convinced us of our absolute singularity: the pinnacle of biological evolution. Yet there is no *telos* to biodiversity.

Michel De Certeau writes at great heights: "It [the elevation] transforms the bewitching world by which one was 'possessed' into a text that lies before one's eyes" (2011, 92). He is right to call it a text. When we elevate ourselves in our symbolic linguistic system, alienating our human minds from non-human matter, all we see is text. The world lies before us. Our only task is one of extraction. So, we isolate ourselves from the life- and meaning-making networks we emerged from. We sterilize our living spaces and fragment our potentially symbiotic relations with the world around us.

How does a life-fragment unfragment? Through terra-consciousness.[12] We must be aware of the state of the terrestrial ecosystem and incorporate our bodies into this ecosystem and the network of imaginatively willful becomings with whom we might entangle and become-with. Tim Ingold tells us bindings are not boundaries. Bindings are open, in flux, while boundaries are static and closed. Let us find new and inventive ways to bind ourselves to the life-cycles of endangered species, to coral reefs, and rain forests. For we are already bound, we have simply forgotten the binding.

In the system organism-plus-environment, an organism that destroys the environment destroys itself (Bateson 1972). The overly instrumental or purposive view of nature as a trove of resources we find in capitalism is antithetical to nature's imagination. Infinite economic growth is an impossibility. Moreover, the Lauderdale Paradox holds that an increase in private riches is only possible by choking off public wealth (Hickel 2019). When we think of the myriad selves we share the world with, how much greater is the tragedy when the public includes non-humans too! We need to rethink everything

[12] I advocate for a terra-consciousness in relation to Bruno Latour's (2018) project of the Terrestrial as the alternate vector, perpendicular to the trajectory of modernism from the Local to the Global, upon which our new politics must take place.

through this lens. Following Latour, this would entail a "system of engendering" (2018, 82) rather than systems of production. Systems of engendering consider terrestrials—all the selves that occupy this Earth with us. Such systems are focused on dependency rather than the false economic freedom of production and consumption. Tracing out a system of terrestrial interdependency would require renewed interest and research in the "life sciences"—those that study this Critical Zone within which everything and everyone we have ever known or ever will know resides. It would involve taking stock of the myriad beings with whom we can and cannot live—an exhausting and exhaustive, but not impossible, task (ibidem).

This will require us to rethink the way we live. We must move away from the nation-state (ibidem) and towards city-regions. We can conceptualize any (capitalist) human settlement as a colony, both in the ecological sense shared with ants or bees and in the brutal extractive sense of imperial expansion. For "capitalism always needs an outside, external to itself, from which it can draw uncompensated value" (Hickel 2019, 59). Additionally, it is imperative that at the juncture of nature and culture, agriculture, we examine what it means to be part of nature instead of over and against it. How might we turn agriculture from being a break, an extractive frontier from which we draw uncompensated value, to being a node in a continuity? City-region food systems are being developed (FAO 2014), but these often still fall into humanistic or economically driven frameworks. We must re-privilege this world we have dishonored without denigrating the human (as a virus, as fallen) to maintain a humble opinion of our powers.

> But we shall bear with equanimity those things which happen to us contrary to that which a regard for our advantage postulates, if we are conscious that we have done that which we ought, and that we could not have extended the power we have to such an extent as to avoid those things, and moreover, that we are a part of nature as a whole, whose order we follow. If we understand this clearly and distinctly, that part of us which is defined by our understanding, that is the best part of us, will be wholly contented, and will endeavor to persist in that contentment. For in so far as we understand, we can desire nothing save that which is necessary, nor can we be absolutely contented with anything save what is true: and therefore in so far as we understand this rightly, the endeavor of the best part of us agrees with the order of the whole of nature.
>
> Spinoza, *Ethics*, Part IV, Appendix, Paragraph 32.

We must honor the entanglements and life-webs in which we find ourselves, that the best part of us might agree with the order of nature. Build cities, institutions, farms, transportation, and economies in biomimetic fashion. If imagination is the predecessor of will, whatever we will do, we must first imagine. So I leave you with the barest beginnings. Perhaps human consciousness can be *natura naturans*—imagining as nature imagines.

Bibliography

1. Asimov Isaac (1991), *Nightfall: And other Stories*, London: Grafton Books.
2. Bachelard Gaston (2006), *Water and Dreams: An Essay on the Imagination of Matter*, trans. E. R. Farrell, Pegasus Foundation.
3. Bachelard Gaston (2014), *The Poetics of Space*, trans. M. Jolas, London: Penguin Books.
4. Bateson Gregory (1972), *Steps to an Ecology of Mind*, San Francisco: Jason Aronson Inc.
5. Certeau Michel De (2011), *The Practice of Everyday Life*, trans. S. F. Rendall, Berkeley – Los Angeles – London: University of California Press.
6. De Castro Eduardo Batalha Viveiros (2014), *Cannibal Metaphysics: For a Post-structural Anthropology*, Minneapolis: Univocal.
7. Deleuze Gilles & Guattari Félix (1987), *A Thousand Plateaus*, trans. B. Massumi, Minnesota: University of Minnesota Press.
8. FAO (2014), *CITY REGION FOOD SYSTEMS: Sustainable Food Systems and Urbanization*, Rome: FAO.
9. Haraway Donna (2016), *Staying with the Trouble: Making Kin in the Chthulucene*, Durham and London: Duke University Press.
10. Hickel Jason (2019), "Degrowth: a theory of radical abundance", *Real-World Economics Review*, 87, pp. 54-68.
11. IJsseling Samuel (1997), *Mimesis: On appearing and being*, Kampen: Kok Pharos.
12. Ingold Tim (2011a), *Being alive: Essays on movement, knowledge and description*, London: Routledge.
13. Ingold Tim (2011b), *The perception of the environment: Essays on livelihood, dwelling and skill*, London: Routledge.
14. Ingold Tim (2016), *The Sustainability of Everything*, Lecture presented on 09/11/2016 in The Pearce Institute, Glasgow.
15. Kohn Eduard (2015), *How Forests Think: Toward an Anthropology beyond the Human*, Berkeley – Los Angeles – London: University of California Press.
16. Latour Bruno & Aït-Touati, F. (2018), *Inside*, Lecture presented on 11/24/2018 at Kaaitheater, Brussels.
17. Latour Bruno (2018), *Down to Earth: Politics in the New Climatic Regime*, London: Polity Press.
18. Lovelock James (1972), "Letter to the Editors: Gaia as seen through the atmosphere", *Atmospheric Environment*, 6, pp. 579-580.
19. McCarthy Michael (2015), *The Moth Snowstorm: Nature and Joy*, London: John Murray.

20. Merleau-Ponty Maurice (1981), *Phenomenology of Perception*, London: Routledge and Kegan Paul.
21. Merleau-Ponty Maurice (2004), *The World of Perception*, trans/ed. T. Baldwin, London: Routledge.
22. Nakagaki T., Yamada H., Tóth Á. (2000), "Maze-solving by an amoeboid organism", *Nature*, 407, pp. 470-470.
23. Plato (1999), *Cratylus*, trans. C. D. Reeve, Indianapolis: Hackett Pub.
24. Spinoza Baruch D. (1996), *Ethics,* trans. E. M. Curley, London: Penguin Books.
25. Tsing Anna (2017), *The Mushroom at the End of the World: On the possibility of life in capitalist ruins*, Princeton, New York: Princeton University Press.

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"Who Was Ever Only Themselves?"— Precarity, Vulnerability, and Interbeing in Forrest Gander's *Be With*

Abstract

This article aims to read Forrest Gander's Pulitzer-winning 2018 volume, *Be With*, in the context of Judith Butler's notion of vulnerability and the Buddhist concept of interbeing, introduced by Thích Nhất Hạnh. Gander's search for a poetics of listening reaches a new intensity in *Be With*, a poetic lament for a deceased beloved. In this groundbreaking work, grief becomes a means of knowing the world where knowledge is understood "not as recitation but as/ the unhinging somatic event" (Gander 2018, 28). The new way of engaging with the world triggers a subjective reconfiguration that leads to the articulation of a deeply empathic poetics of vulnerability which becomes the basis for telling new stories of human, interspecies, and mineral entanglements.

Keywords

Forrest Gander, Ecopoetics, Mourning, Geology, Precocity, Vulnerability, Interbeing, Entanglement, Deep Time

In a recent interview with Masha Gessen, Judith Butler proposes: "If we were to rethink ourselves as social creatures who are fundamentally dependent upon one another—and there's no shame, no humiliation, no 'feminization' in that—I think that we would treat each other differently because our very conception of self would not be defined by individual self-interest" (Gessen 2020). Butler's critique of individualism and her insistence on the inseparability of the self and the other that sustains and/or threatens it is bound up

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with her ongoing exploration of the notions of precocity and vulnerability. In her most recent book, *The Force of Nonviolence: The Ethical in the Political,* she notes that individualism "fails to capture the condition of vulnerability" as it focuses on the individual's right to persistence. The notion that this "right" belongs to an individual is in fact an illusion since the very notion of "right" depends on the existence of a social network that grants or denies it. There is no "I" without a "you," moreover, "both the "I" and the "you" require a sustaining world" (Butler 2020, 200). What follows is that there can be no individual survival since an individual's life is entangled with countless other lives, both human and more-than-human, a condition which finds its emphatic confirmation in our current pandemic state. One's inevitable dependence on multiple others who are in their turn not independent translates into a concept of vulnerability understood as an irreducible condition of embodied existence.

Butler's articulation of vulnerability and its relation to bodily and environmental situatedness of the subject provides one of the keys for my reading of Gander's newest work. The other key derives from the notion of interbeing, as developed by the Vietnamese monk, peace activist and poet Thích Nhất Hạnh, based on one of the fundamental Buddhist scriptures, the *Avataṃsaka Sūtra* (known in English as "Flower Garland Sutra" or "Flower Ornament Scripture"). Even though Butler and Nhất Hạnh represent very different philosophical traditions—Judaism and Buddhism respectively—their writings express similar ethical intuitions, linking vulnerability with compassion where the latter becomes a form of non-violent force. I would like to argue that Gander's relentlessly experimental poetry works within the field of that force, searching for new ways to express an individual's entanglement with others and the ethical and spiritual consequences of that entanglement. Among those consequences is an acute awareness of complex material interdependencies between living beings trying to survive "in capitalist ruins," to borrow the phrase from Anna Lowenhaupt Tsing,[1] but also of multi-species alliances that reach beyond the biological. Though the costs of planetary catastrophe are not distributed equally or justly among human

[1] In *The Mushroom at the End of the World. On the Possibility of Life in Capitalist Ruins*, Anna Lowenhaupt Tsing chooses a fungi species, matsutake, to reflect on complex interspecies entanglements of Capitalocene, foregrounding the fact that "life requires the interplay of many kinds of beings." To express that fundamental fact, we need "new ways of telling true stories beyond civilizational first principles" (2015, vii). In my view, Forrest Gander's poetry provides some of "the new ways of telling" by exploring the spiritual implications of intra—and inter- species entanglements.

and non-human actors, the universality of the damage creates a queer sense of intimacy, or "intimately/ lethal gesture of our common existence" as Gander puts it in the "Epitaph" (2018, 15). To experience the intimacy of the Anthropocene is to form a new kind of knowledge that is inseparable from grief (Head 2016).

Forrest Gander is a poet, fiction writer, essayist, and translator who also holds a degree in geology. His poetry mainly focuses on landscape and the multiple ways in which it shapes human subjectivity and selfhood. A landscape is more than visual, it is a site where different agencies and different temporalities interact, including the deep time of geological Earth. Gander's work articulates an interconnectedness of all beings, phenomena, and processes emphasizing more-than-human agents' role in making the worlds we inhabit. The entanglements that bound us with the rest of the universe are not only material but also, inevitably, emotional and spiritual. For his unique blend of science and spirituality, Gander is sometimes described as an "ecopoet," but as he declares in *Redstart. An Ecological Poetics* (written in collaboration with John Kinsella), what interests him is not so much "'nature poetry,' where nature features as a theme," but "poetry that investigates—both thematically and formally—the relationship between nature and culture, language and perception" (Gander, Kinsella 2012, 2). Unlike some other poets and critics who use the term, Gander does not define ecopoetics in terms of a particular kind or genre of poetry, rather, he suggests a territory of poetic and environmental inquiry.[2]

Gander often states in his essayistic prose and interviews that he does not believe poetry has a message to deliver. Rather, poetry *listens.* In "Nymph-Stick Insect: Observations on Poetry, Science and Creation" (2005a), he underscores an important similarity between poetry and science: both need to overcome their assumptions, their accumulated pieces of knowledge and venture into the realm of that which is unknown and perhaps unthinkable. In this endeavor, he suggests, "we may be led best by

[2] J. Scott Bryson's *Ecopoetry: A Critical Introduction* (2012) is an example of a prescriptive approach attempting to define „ecopoetry" as a genre. Bryson proposes a series of criteria that a properly ecological poem must meet, thus indirectly demanding that poets write in a certain way in order to be ecological. Gander distances himself from such a prescriptive approach. In contrast, the work of Jonathan Skinner (2017), Lynn Keller (2017) or Angela Hume and Gillian Osborne (2018) looks at the actual poetic practices of the Antropocene. My own view of ecopoetics in the context of experimental poetry is outlined in *Ekopoetyka/Ecopoética/Ecopoetics* (Fiedorczuk and Beltrán 2020). For the discussion of Forrest Gander's ecopoetics see pages 260-261.

silence, an almost religious gesture of openness."[3] I would like to investigate this gesture of openness as that is what lies at the heart of Gander's poetic experiment as it unfolds through multiple encounters between self and other, landscape and eye, sense and non-sense. The poet describes the gesture as "almost religious." Listening, making room for silence (for periods of time or even permanently) is in fact recommended by many religious traditions. For Thomas Merton, a Trappist monk and a student of Asian religions—considered by the Zen master Shunryū Suzuki as one of the few westerners who understood Buddhism—silence was a bridge between East and West. Mystics, regardless of their confessed faith, fall silent under the delightful weight of their unspeakable experience. Monks and lay practitioners of contemplative traditions keep silence to develop self-knowledge, live more harmoniously in their environment, or refrain from adding to the already existing clutter of the world. John Cage, like Merton a student of Suzuki, used silence as a tool that allowed him to meditate on the notion of sound. While not subscribing to any religious faith, Gander's work, informed by poetic traditions of both West and East, adds its unique, science-informed practice to the contemplative current in modern American poetry.

The gesture of "an almost religious" openness has been present in Gander's poetry from the start and even though much of his early work foregrounds the sense of vision rather than hearing, the *attitude* is that of listening. In "Bridge & Swimmer" (2005b), a poem written as a response to a photograph by Sally Mann, the enigmatic openness manifests itself as a blemish on the otherwise coherent image:

> Our eye goes past the hieroglyphic tree to the swimmer
> carving a wake in the water. And almost to the railroad bridge
> from which the swimmer might have dived. Then, as though
> come to the end of its tether,
> our gaze returns, pulling towards the blemish
> on the surface of the print. An L-shaped chemical dribble,
> it sabotages the scene's transparence
> and siphons off its easy appeal.

[3] The fragment continues: "It is said that the powers of a Noh actor can be assessed simply on the basis of his *kamae*, an immobile position giving the impression of unshakeable balance and intense presence. His muscles are not tight, but neither are they relaxed. Consciousness is focused on all parts of the body simultaneously. *Kamae* is a posture open to all eventualities" (Gander 2005a, 7).

> At the same time, the blemish
> joins together the realms
> of seer and swimmer
> in our experience of plunging
> in and out of the image.
>
> Gander 2005b, 55.

The blemish, interpreted by the poet as the letter L, attracts our attention to the surface of the image, to its making, to the very process of representation, laying bare the device, reminding us that the image is the effect of a collaboration between the physical world and our senses (augmented in this case by the lens of a camera), that it is, in other words, a kind of illusion. The image both joins us with the world and separates us from it. In this respect, it might be compared to a semi-permeable membrane of a cell which both defines the cell as a separate entity and serves as its means of communication with the external world.[4] The blemish on the image sabotages the coherence of the picture, unseals it, introduces an enigma. It is a sign that cannot be read, only taken in, even though it is shaped like a letter. Incidentally, the letter L also appears in "A Theological Definition" by George Oppen, a poem describing a room, whose windows open on to the sea.[5] In both poems, the letter L stands for a mysterious message whose unique materiality cannot be separated from its content. As a result, the message can only be intuited—not understood or paraphrased. Poetic intuition respects the enigma of the more-than-human world, makes room for its independent existence and communicativeness, "it has no message to deliver, rather—it listens." In "River and Trees," another poem from the same sequence, the landscape is considered as an active maker of the image:

> There,
>
> in the rumpled quiet of the trees, we catch the most
> animate qualities. In the riffle of leafy detail, we sense the
> respiration of the forest.

[4] Biosemiotics maintains that life involves a form of psychic functioning from the start. As Wendy Wheeler puts it, "every cell has what we must call a 'cognitive' element" (2014, 79); this elementary cognition depends on the existence of a semi-permeable membrane.

[5] "A small room, the varnished floor / Making an L around the bed, // What is or is true as / Happiness // windows opening on the sea [...]" (Oppen 2002, 203).

> And while we absorb this disturbance in a merely apparent repose, our stomach rolls—as when an elevator begins to descend. We detect in the blurred trees a peristaltic contraction. We feel the landscape giving birth to our vision.
>
> Gander, 2005b, 39.

Gander's Pulitzer-winning volume *Be With*, written after the sudden death of his wife, the poet Carolyn D. Wright, continues his ecopoetic explorations but does so in the context of personal loss and mourning. Though the poems grow out of an experience which is so unique as to be incommunicable, Gander manages to articulate a poetics that, even as it cannot express the particularity of loss, makes that very impossibility acutely felt, thus creating a space in which vulnerability can be experienced as a shared condition of embodied existence in our "world of wounds."[6] As Charles Altieri said of the book, it turns grief into a kind of "epistemic instrument" by means of which the poet reconfigures his relationship with the world. In my view, this reconfiguration is best understood as the incorporation of vulnerability which, as proposed by Butler, is a real condition of embodied selfhood. Despite individual bodies' differing access to power and violence, vulnerability is an irreducible aspect of life. In death, the body leaves the realm of the biological and becomes mineral, "rolled round in earth's diurnal course," as Wordsworth famously put it in "A Slumber did My Spirit Steal." Gander's work performs vulnerability through experimental poetics whose aim is to demonstrate the subject's radical dependence on others as well as life's dependence on the geological planet. Grief destabilizes subjectivity, exposing the fiction of self-sufficient ego. Writing out of the experience of subjective destitution Gander makes manifest the bond that connects an individual with other beings and with our shared, rapidly shrinking environments as well as the deep time of the Earth. "When are your poetics, your politics, not implicated in another's?", he asked in *Redstart* (Gander, Kinsella 2012, 1). In *Be With* this implication is felt very deeply, both as a material interpenetration of one's body with other bodies and as a spiritual "being with"—or *inter*being—with others, both present and absent, across matter, space, and time. The form of knowledge that is produced in the poems is not "a recitation" but "the unhinging somatic event," as it is phrased in "Where Once a Solid House" (Gander 2018, 28).

[6] It was Aldo Leopold who famously noted that "one of the penalties of an ecological education is that one lives alone in a world of wounds" (1949).

The first poem in the collection is titled "Son" and begins with the description of a silence which divides family members in their singular, intimate experiences of grief:

> It's not a mirror that is draped, but
> what remains unspoken between us. Why
>
> say anything about death, inevitability, how
> a body comes to deploy the myriad worm
>
> as if it were a manageable concept not
> searing exquisite singularity.
>
> Gander 2018, 11.

It is impossible to say anything about death because death is not a concept, surely not when it concerns ourselves or the people that we love. The "searing exquisite singularity" is at odds with the conventionality and iterability of words. But even though the poet's "grief-sounds" occasionally "ricochet outside of language," not speaking is not a possibility either because it is only through words that grief can be shared—and it must be shared for life to continue. Whose life is it? The question of who survives the loss—in other words, of who one becomes through the process of grieving—is one of the central concerns of the book:

> [...] You lug a bacterial swarm
> in the crook of your knee, and through my guts
>
> writhe helmet parasites. Who was ever only themselves?
>
> Gander 2018, 12.

The implied answer is, of course, no-one. No-one has ever been only themselves because every organism is a hybrid (the human body contains more microbial cells than human cells) but also because of the radical dependence of our bodies on the life-sustaining systems of the earth and the meaning-sustaining bonds with other human and non-human beings. No-one has ever been only themselves because we never are, we always *inter*-are.

Interbeing describes the infinitely complex network of inter-dependencies between all the elements of the universe, what accounts for the notion of independent co-origination, articulated in one of the fundamental Buddhist texts, the so-called *Flower Ornament Scripture* (Avataṃsaka Sūtra) through the metaphor of Indra's Net—a huge, diamond-studded net in which every diamond reflects and is in turn reflected by all the other diamonds. According to the sutra, each existence multiplies and is multiplied by all other existences, just like the diamonds in the net (Cleary, 1993). However appealing that image might be, the truth of interbeing is not always easy for the confused mind to accept because it exposes the illusory character of the individual ego, its precocity, and dependence on others. According to Judith Butler, our interdependency serves as the basis of our ethical obligations to one another: „When we strike at one another, we strike at that very bond", she says. The existence of the bond is never so obvious as it is in loss, as the poet makes clear in "Epitaph:"

To write *You*
existed me
would not be merely
a deaf translation.

For there is no
sequel to the passage when
I saw—*as you would*
never again be revealed—you see me
as I would never again
be revealed.

Gander 2018, 14.

One exists at least in part through being revealed and multiplied in a beloved's eyes as if those eyes were the diamonds of Indra's Net. To lose a beloved is to lose part of oneself—to die a little.[7] Likewise, we also die a little when we lose landscapes, species, the wild.[8] This is made clear for instance

[7] Gander speaks about this experience, and about poetry as a way of metabolising grief, in an interview for *Przekrój*, pointing out that loss is „a useless word" when it comes to such a fundamental bereavement (Fiedorczuk 2020, [online] https://przekroj.pl/ kultura/strata-slowo-bezuzyteczne-julia-fiedorczuk).

[8] The question of mourning the losses of the Anthropocene has been tackled by a number of theorists, notably, Catriona Mortimer-Sandilands who links environmental melancholia with queer melancholia and postulates the necessity of going through the process of

in "Evaporación: A Border History," a bi-lingual (Spanish-English) poetic exploration of the violence-infused landscape of the US-Mexican border, depicting layers of geological and human time, of human and more-than human histories. "Who was ever only themselves?" No-one. And yet we tend to pretend that we are, turning away from our own fragility and the fragility of other beings around us, "striking at the very bond" which provides the ground of our ethical obligations to one another and the earth.

Even though loss happens outside of language, "the script" can only be hidden "in utterance" because that is what we, human beings, do—we speak. The line breaks in "Epitaph" reflect the complexity of the interdependence of self and other, speech and silence, presence and absence. The first line—"To write *you*"—could perhaps be read as an expression of a desire that causes these poems to come into existence in the first place. To *write* the lost beloved would be to save at least some part of her from dying. But the second verse—"*existed me*"—silences that desire, introducing a twist in syntax which expresses the fact that existence is not the property of the self but a gift bestowed on the self by the other. The line break after "no" points to absence—"there is no"—a paradoxical absence that can be evoked and thus made partly present, as a trace. The (non)presence of a trace takes the form of a possible (now impossible) future—a sequel to a story that could have had a sequel but now won't. Losing a beloved, we lose ourselves in the future. The future becomes an enigma, a void, an abyss.

The poems in *Be With* do not look away from that abyss. On the contrary, they confront that which is most difficult to accept and yet which must be accepted for a more ecological subjectivity to come into being—the transience of any embodied existence. The title of the volume—borrowed from C. D.'s dedication to the poet[9]—can be read as articulating precisely the kind of ethics Butler has in mind: the ethics of not turning away from that which

grieving, which requires identifying the lost object in ways evading the contemporary "environmental spectacle" and accounting for the complexity of our connections with the environment" (2010). From a different Angle, Neville Ellis and Ashlee Cunsolo have written about the need to mourn expressed by the Inuit communities in the Inuit Land Claim Settlement Area of Nunatsiavut (Labrador, Canada) and by farmers in Western Australian Wheatbelt (2018). Gander's perspective combines personal grief with environmental grief. The subject-in-mourning becomes especially predisposed to witness to the losses of the Anthropocene because an acute sense of precocity excludes denial.

[9] The poet Carolyn D. Wright, Gander's partner of more than thirty years, died suddenly in her sleep in 2016. Later that year a posthumous volume of her poems was published under the title *ShallCross*, with a dedication: "for Forrest / line, lank and long, / be with" (Wright 2016, 3).

is most painful. *Staying* with the truth of our own and our loved one's mortality, *staying* with personal and environmental loss, *being with* the diminished nature of the Anthropocene is what Gander's poetic project achieves. "The Epitaph" does indeed broaden its reflections on "common existence" to include the non-human environment. While the speaker attempts to defend himself (as we all do)—"behind mixed instrumentalities", he finds it impossible not to notice that "cyanide drifts / from clouds to / the rivers" (2018, 15), that bears in China are "milked for bile" (2018, 18), or that the desert near the Mexican border is studded with "Vietnam-era seismic probes" (2018, 63). All these forms of destruction make up a part of who we now are.

Gander's poetry touches vulnerability through the attitude of listening. In *Redstart. An Ecological Poetics* Gander and Kinsella outlined some characteristics of the kind of poetics that they intended to practice. They included:

1. a dispersal of the ego-centered agency;
2. self-reflexivity ("the poem originates not within the self but the landscape");
3. describing "encounters" rather than permanent states;
4. "a rigorous attention to patterning";
5. a reorientation of objectivity towards intersubjectivity.

The most interesting of these points is attention to patterning, as it reorients the discussion from subject matter to the question of poetics, where ecology is understood as a principle of composition. In a similar vein, John Cage had postulated that art should imitate nature in its *manner of operation* (Jaeger 2013, 53) rather than treating it as a theme. Though both Cage and Gander can be described as ecological artists, their aspiration is neither to represent non-human nature nor to articulate an ideological standpoint, but to explore the patterns of the more-than-human-world. The patterns of nature that interest both Cage and Gander are perfect through a kind of imperfection. A motif that best illustrates this paradox is that of a web. Indra's net from the *Flower Ornament Scripture* and a common spiderweb (often associated with the work of a poet) share certain fundamental qualities, namely—they are dynamic and adaptable.[10] The patterns of nature, in other words,

[10] Web is also a favoured metaphor in postmodern biology, gradually turning away from the notion of the „tree of life" which was central to Modern Synthesis. According to Margaret McFall-Ngai, "classic notions of evolutionary descent and reproductive transmission of genes no longer hold," as they are complicated by the discovery of horizontal gene transfer and bacterial phylogeny. Eugene Koomin, a biologist focusing on comparative genomics, proposes phylogenetic diagrams that depict a web of life rather than a tree (McFall-Ngai 2017, 54-57).

are informed by "gesture of openness" resulting from the fact that they must be responsive to the conditions of the environment. As A. R. Ammons noticed at the beginning of the well-known poem "Identity:"

> An individual spider web
> identifies a species:
> an order of instinct prevails
> through all accidents of circumstance,
> though possibility is
> high along the peripheries of
> spider
> webs [...]
>
> Ammons 1986, 27.

The poem makes it clear that although just one spiderweb is enough to identify the species of the spider-artist, no two spiderwebs of the same species are ever identical. An individual spiderweb needs to respect the context ("all the accidents of circumstance"). If the pattern was too rigid, the spider would never find the perfect place in which to put the web. On the other hand, if it was too loose, it would no longer be a form, a style identifying the species. For Cage and Gander imitating nature in its manner of operation means looking for forms that do not reflect ego-agency but on the contrary, allow the artist to be freed from the constraints of the ego with its attempts to conquer and control the environment. For Gander, the exploration of natural forms is a way of "being with" the world even when that attitude brings pain. Gander's forms, meticulously made, are also very flexible and adaptable. The line-breaks and, more generally, the setting of stanzas on the page, often reflect some aspects of a poems' meaning. For instance, the poem titled "Archaic Mano," a meditation on an ancient Native American tool for grinding corn, takes the form of an irregular wave, materializing the gestures of a woman performing her daily task of grinding (Gander 2018, 34). The adaptability of poetic form relates to the practice of listening, defined by Gander as poetry's most important task.

Listening and speaking, however, are not mutually exclusive. In "Lecture on nothing" Cage addresses this paradox as follows: "What we require is silence; but what silence requires is that I go on talking" (Cage 2010, 109).

Could silence be not opposed to speaking but a form of speaking? That clearly is the case for Cage for whom speech and silence do not form a dichotomy. Cage considers silence as a kind of sound (his favorite). Silence, in his view, is not opposed to sound but it is situated on the spectrum of

sound. Cage's continuous exploration of sound, noise, music, and silence can be interpreted as Buddhist teaching (Timmerman 2009). If silence is a form of sound, perhaps, by analogy, it is possible to think of listening as situated on the spectrum of speaking. I would like to propose that listening, as Gander understands it, constitutes an aspect of a conversation. It introduces silence a form of openness, flexibility, and adaptability, "an almost religious gesture" incorporated into speech which, in this poet's practice, is always dialogical.

One of the ways in which Gander practices listening and underscores the dialogical aspect of his poetics is through collaboration with other artists: photographers, scientists, potters, and dancers. Collaboration is a way to contest the rigidity of the individual ego. The last part of *Be With*, titled "Littoral Zone," grows out of a collaboration with the photographer Michael Flomen, whose work may be said to explore time, including the time of the planet Earth moving through space.

For the last 15 years, Flomen has practiced camera-less photography taking inspiration from various forms of water, firefly light, wind, and other natural phenomena. The "Littoral Zone" sequence was made by placing large sheets of photographic paper in streams and then allowing natural sources of light to "develop" images as they move across the sky. The photographs are oddly tantalizing. Though it is impossible to locate the reality that they represent (some of them are evocative of earthly landscapes, some—of outer space) one intuitively feels that they are not abstractions but what they invite the viewers to contemplate is the kind of temporality that is at odds with human perception—it is precisely "Earth's diurnal course" as Wordsworth put it, the time of the planet, of mineral entities and the dead. Gander first started writing in response to Flomen's images following the invitation of an experimental Dutch poetry magazine (alligatorzine). When composing *Be With*, the poet returned to the collaboration trying to find in Flomen's eerie landscapes a setting for a confrontation with his loss, attempting to initiate a kind of contact with the lost beloved. The poems—there are six of them in the cycle corresponding to the number of images—all follow the same pattern. Each consists of three parts. The first part always attempts to describe a given picture. The second part reflects on the conditions of perception. The third is a comment on the speaker's relationship with the deceased. Three of the pieces are titled "Entrance," three "Exit;" their alternation creates a pulsating rhythm. The fluctuation of sense and nonsense, of entering and exiting, of speech and silence—the littoral zone between life and death—evokes breathing. The last "Exit" begins with this description:

> Mobbed phosphorescence, gaseous swarm. And breath beats blazed into an invisible integument. To begin in intimacy on this volcanic tuff. Here to cling (Gander 2018, 89).

Intimacy is one of Gander's favorite terms.[11] It relates to life, with the vulnerability of living bodies, here opposed to the dead rock of volcanic tuff. Life clings to rock like interpretation, a desire for meaning, clings to silence. The second part of the poem links perception and vulnerability:

> *For though we have no criterion for how to see and are not sure what we are seeing, we are plunged into sensation. As into a novel ache. But what ever has dispassionate description delivered?*

Gander's poetry encounters the wound of personal loss, as well as the "novel ache" of a sensation, experienced deeply, without filters. It does not dilute despair with attempts at consolation. It stays with the absence—it listens to the silence of absence, registering the decomposition and recomposition of self in response to loss. It stays in the moment of subjective destitution and dwells in that impossible place. As a poetic practice of vulnerability, *Be With* materializes an ethical choice—*not* to be only oneself.

Even though Gander's recent book is more personal than his previous work and focuses on a human loss, his attention remains tuned in to the more-than-human world: the Earth with its geological layers and its deep time, a spider in the corner of a room, multiple species of plants and animals, and whole galaxies. The vulnerability exposed by the poems makes it impossible to repress the huge loss we are all suffering at present—the loss of life in the sixth great extinction event. If the question that comes to the mind of one who has lost a beloved is "who am I without you?", Gander's work forces the reader to ask this question of all of us who are now losing a million fellow species predicted to become extinct in the next decades.

To conclude, let us return to Butler once again: "Our interdependency serves as the basis of our ethical obligations to one another. When we strike at one another, we strike at that very bond." Pain makes that bond more acutely felt. For Gander, it becomes an instrument, a means to remain responsible. The last "Exit," and the whole book, ends with the heart-breaking stanza:

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[11] It is also a term often used by Zen practitioners of the Soto school, initiated by Dōgen (1200-1253), to describe the relationship with the world established through practice (Katagiri 2007). Intimacy, as it appears in Gander's writing, is both erotic and related to a kind of enlightenment, that is to say, to a direct experience of "unimpededness and interpenetration" (Cage 1961, 46).

Your impact marks
throng the resin
of my mind. Declension,
a focal spasm. When your
eyelids release their tension,
nocturnal pods, in-
vertebrate and
membranous, surge
into my dreams. From
afar; do you see me now
briefly here in this phantasmic
standoff riding
pain's whirlforms?

The poetry of this fragment evokes entanglements of various kinds of materiality and mind, the pain, too, forming patterns. A "whirlform" is a paradoxical form, consisting in part of fire and ashes and in part of the wind. It comes into existence in the process of decomposition of other material forms. The fundamental question in *Be With* is the question dictated by grief, and it concerns the identity of the bereaved. As such, it requires such forms that can address the underlying emptiness of all identities, conceptualized by Buddhist thinking as interdependent co-origination.[12] That central question takes us outside of language, where all we can do is become open to the terrifying and beautiful transience of the world—and ourselves in it. In this wonderful and terrible openness, we listen and precariously live. We become who we are with our diminished, wounded world, with other humans, non-humans, and ghosts. The non-violent force of connection through shared pain sets all the jewels of Indra's net momentarily aglow.

Bibliography

1. Ammons Archie Randolph (1986), *New Selected Poems*, New York: Norton.
2. Bryson Scott (2012), *Ecopoetry: A Critical Introduction*, Salt Lake City: University of Utah Press.
3. Butler Judith (2020), *The Force of Non-Violence*, New York: Verso.
4. Cage John (2010), *Silence: Lectures and Writings*, Middletown: Wesleyan University Press.

[12] In the words of *Flower Ornament Scripture*: "He who realises that the nature of things is without solidity / Appears in all the bounces lands of the ten directions: / Expounding the inconceivability of the real of buddhahood, / He causes all to return to the ocean of liberation" (Cleary 1993, 68).

5. Cleary Thomas (1993), *The Flower Ornament Scripture: A Translation of the Avatamsaka Sutra*, Boston and London: Shambhala.
6. Ellis Neville, Ashlee Cunsolo (2018), "Hope and mourning in the Anthropocene: Understanding ecological grief", *The Conversation*, [online] https://theconversation.com/hope-and-mourning-in-the-anthropocene-understanding-ecological-grief-88630 [accessed: 3.07.2020].
7. Fiedorczuk Julia (2020), *Strata — słowo bezużyteczne*, [online], https://przekroj.pl/kultura/strata-slowo-bezuzyteczne-julia-fiedorczuk [accessed: 22.07.2020].
8. Fiedorczuk Julia, Gerardo Beltrán (2015, 2020), *Ekopoetyka / Ecopoética / Ecopoetics*, Warszawa: Muzeum Historii Ruchu Ludowego.
9. Gander Forrest (2018), *Be with*, New York: New Directions.
10. Gander Forrest (2005b), *Eye Against Eye*, New York: New Directions.
11. Gander Forest (2005a), "The Nymph-Stick Insect: Observations on Science, Poetry and Creation" [in:] idem, *A Faithful Existence. Reading, Memory and Transcendence*, New York: Shoemaker&Hoard.
12. Gander Forrest, Kinsella John (2012), *Redstart. An Ecological Poetics*, Iowa City: University of Iowa Press.
13. Gessen Masha (2020), "Judith Butler Wants Us To Reshape Our Rage", [online], https://www.newyorker.com/culture/the-new-yorker-interview/judith-butler-wants-us-to-reshape-our-rage [accessed: 20.04.2020].
14. Head Lesley (2016), *Hope and Grief in the Anthropocene: Re-conceptualizing Human-Nature Relations*, New York and London: Routledge.
15. Hume Angela, Osborne Gillian (eds.) (2018), *Ecopoetics. Essays in the Field*, Iowa City: Iowa University Press.
16. Jaeger Peter (2013), *John Cage and Buddhist Ecopoetics*, New York: Bloomsbury Academic.
17. Katagiri Dainin (2007), *Zen and the Way of Being Time*, ed. A. Martin, Boston and London: Shambhala.
18. Keller Lynn (2017), *Recomposing Ecopoetics. North American Poetry of the Self-Conscious Anthropocene*, Charlottesville and London: University of Virginia Press.
19. Leopold Aldo (1949), *Sound County Almanac: And Sketches Here and There*, New York: Oxford University Press.
20. McFall-Ngai Margaret (2017), "Noticing microbial worlds", [in:] A. Tsing et al. (eds), *Arts of Living on a Damaged Planet*, Minneapolis: University of Minnesota Press.
21. Mortimer-Sandilands Catriona (2010), "Melancholy Natures, Queer Ecologies", [in:] C. Mortimer-Sandilands, B. Erickson (eds.), *Queer Ecologies: Sex, Nature, Politics, Desire*, Bloomington and Indianapolis: Indiana University Press, pp. 331-358.
22. Nhất Hạnh Thích (2015), *How To Love*, Berkeley, CA: Paralax Press.
23. Oppen George (2002), *New Collected Poems*, New York: New Directions.
24. Skinner Jonathan (2017), "Ecopoetics", [in:] R. Greenwald Smith (ed.), *American Literature in Transition, 2000–2010*, Missouri: Saint Louis University.
25. Timmerman Peter (2009), "Uncaged: Buddhism, John Cage, and the Freeing of the World", *Canadian Journal of Buddhist Studies*, 5, pp. 39-57.
26. Tsing Anna Lowenhaupt (2015), *The Mushroom at the End of the World. On the Possibility of Life in Capitalist Ruins*, Princeton and Oxford: Princeton University Press.

27. Wheeler Wendy (2014), "Natural Play, Natural Metaphor, and Natural Stories: Biosemiotic Realism", [in:] S. Iovino, S. Oppermann (eds.), *Material Ecocriticism*, Bloomington and Indianapolis: Indiana University Press, pp. 67-79.
28. Wright C. D. (2016), *ShallCross*, Port Townsend: Copper Canyon.

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Two Problems in Scientific Cognitivism

Abstract

I try to interpret the notion of "scientific cognitivism" that can be found in Allen Carlson's works. I argue first that, contrary to Carlson's view, scientific knowledge does not play a necessary role in the aesthetic appreciation of nature but may even be detrimental to it. Mark Twain's aesthetic experience from the perspective of a practical level is exemplary. I argue scientific cognitivism has no plausibility in the appreciation of nature. I then analyze an inappropriate sense of scientific cognitivism in the aesthetic appreciation of nature on a theoretical level, including Kant's theory and other environmental philosophers such as Hepburn, Zangwill, and Berleant. In conclusion, I claim that scientific cognitivism enables inappropriate aesthetic appreciations of nature.

Keywords

Scientific Cognitivism, Kantian Aesthetics, Aesthetic Appreciation of Nature, Environmental Aesthetics, Adherent Beauty

In 1966, Ronald Hepburn published a paper entitled "Contemporary Aesthetics and the Neglect of Natural Beauty." Three years later, Theodor W. Adorno published his book *Aesthetic Theory*, which included a chapter entitled "Natural Beauty." These two pieces of work symbolize the rebirth of natural beauty in aesthetics (Tafalla 2001, 45). After that, environmental aesthetics has experienced great development along with the continual movements of environmental protection. Environmental philosophers like Allen Carlson, Noël Carroll, and Emily Brady, to mention but a few, have attempted to build a new aesthetical construction regarding nature itself,

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in which the aesthetic model of the appreciation of nature is among the most frequently discussed topics. The claims are divided into cognitivism and non-cognitivism. The most widely influential claim is Allen Carlson's scientific cognitivism.

Scientific Cognitivism

In the late 1970s, Allen Carlson presented his notion of "scientific cognitivism" or "the environmental model" (also later referred to as "the natural environmental model"). What is Carlson's environmental model? He writes that, "The model I am thus presenting for the aesthetic appreciation of nature might be termed the environmental model. It involves recognizing that nature is an environment and thus a setting within which we exist and which we normally experience with our complete range of senses as our unobtrusive background" (1979, 274). It is not difficult to notice that the environmental model is partly reasonable in that it conceives "nature" as "an environment," which provides a framework to the subject-object pattern derived from the aesthetic appreciation of art. "When we conceptualize the natural environment as 'nature,' I think we are tempted to think of it as an object" (1979, 271). It provides a good reference concerning the aesthetic appreciation of nature.

In this text, however, I mainly argue that Carlson's scientific cognitivism does not apply to the aesthetic appreciation of nature. Carlson attempts to answer the questions of what and how we should aesthetically appreciate nature. He argues two traditional approaches, namely the object model and the scenery/landscape model, and he maintains that both consist in assimilation of the appreciation of nature to the appreciation of certain art forms. He concludes that his environmental model can provide a better answer to those questions mentioned above because his approach does not assimilate natural objects to art objects, but rather closely follows the general structure of the aesthetic appreciation of art. As he says, "the aesthetic appreciation of nature requires knowledge of natural history and science just like how the appropriate aesthetic appreciation of art requires knowledge of art history and art criticism" (1981, 25). Carlson holds that scientific knowledge plays a necessary and significant role in the aesthetic appreciation of nature. He gives a critique of the assimilation of the appreciation of nature to the appreciation of art; nevertheless, his claim is still deduced from the analogy of nature to art, regardless of the general structure. What's more, Carlson believes that scientific knowledge about nature—particularly in

geology, biology, and ecology—can unveil the reality of nature. In other words, an aesthetically appropriate appreciation of nature is to appreciate it as it is characterized by natural history and natural science.

It seems that Carlson's scientific cognitivism is derived from Hepburn, though Carlson does not express this explicitly. Hepburn elaborates his opinion about the effect of knowledge on the aesthetic appreciation of nature with an example. As he says, when he is walking over a wide expanse of sand and mud, "the quality of the scene is perhaps that of wild, glad emptiness" (2004, 50). However, when he realizes that this is a tidal basin and the tide has been out, that is, he has a knowledge of this scene, then "the wild glad emptiness may be tempered by a disturbing weirdness" (2004, 50). Hepburn's famous example of "sand and mud" suggests that the aesthetic properties that natural objects seem to have are dependent on an observer's "knowledge" about their history and context. Before he realizes the scene is a tidal basin, the quality of the scene is probably "wild, glad emptiness." When observing it under the concept of a tidal basin, "[t]he wild glad emptiness may be tempered by a disturbing weirdness." But Nick Zangwill holds a different position, namely a moderate formalism, as he says. He argues that both "wild, glad emptiness" and "disturbing weirdness" can be aesthetic properties. The difference is that the former may be an intrinsic one and the latter a relational one (2001, 217-218). If we call Hepburn and Carlson supporters of non-formalism, which is compared to traditional formalism, then Zangwill is a neutralist, because Zangwill argues that both formal beauty and non-formal beauty exist. As for Carlson's scientific cognitivism, Zangwill thinks that there is a demanding form and a less demanding form. The former is related to a correct scientific natural category, and the latter—to correct common-sense natural categories. He claims that he partly agrees with Carlson about biological nature.[1] He admits that the kind of object to be appreciated sometimes matters. "If so, we have cases of dependent beauty. But I think that nature also has purposeless beauty" (2001, 212). It is quite evident that Zangwill follows a Kantian formalist approach to natural beauty. It is a hint that we can fall back on Kantian aesthetics to find some useful resources.

Also, Carlson argues that natural objects are such things or creations that are independent of our involvements. He states that we do not create nature like we create art, though, we do know a great deal about nature. It is a direct comparison between art appreciation and the appreciation of nature.

[1] This bears upon an idea that biological things are beautiful qua the biological kind they are.

For Carlson, when one experiences the natural environment, the experience is of "blooming, buzzing confusion," and knowledge of the natural environment is needed to temper it. Knowledge also sets "appropriate boundaries" of appreciation (1979, 274).

He critiques both Noël Carroll's "arousal model" of nature appreciation and Stan Godlovitch's "mystery model" of nature appreciation, both of which argue that knowledge about nature is not essentially necessary to the aesthetic appreciation of nature (Carlson 1995, 393). As Noël Carroll puts it, Carlson's model has neglected appreciations in which observers' emotions are aroused by nature. For example, one stands under a waterfall and feels excited for its grandeur. In this case, the aesthetic appreciation of nature is independent of any scientific categories (1993, 245-253). Godlovitch claims that the only appropriate aesthetic regard for nature is a sense of mystery, which cannot be apprehended from the cognitive-scientific point of view (1994, 22-27). Carlson also makes some responses to the other two environmental philosophers, Malcom Budd and Emily Brady. Both are "non-cognitive" supporters and owe a debt to Hepburn and Kant. Budd does not think scientific knowledge is necessary for the aesthetic appreciation of nature and claims that the aesthetic appreciation of nature ought to be "the aesthetic appreciation of nature as nature" (Carlson 2005, 106-113). Emily Brady doubts the practical application of Carlson's environmental model and argues that it is imagination rather than knowledge that plays a significant role in the aesthetic appreciation of nature.

I shall not further discuss Allen Carlson's valuable critiques to other views here. Rather, I shall concentrate on the role of knowledge in the aesthetic appreciation of nature. My starting point is anti-cognitivism in the aesthetic appreciation of nature. It is a prerequisite in the formation of my position. I have two objections to Carlson's scientific cognitivism, one on a practical level and the other on a theoretical level.

The Role of Scientific Knowledge

First and foremost, my article is inspired by Mark Twain's description of his great disappointments that came from knowing the Mississippi river so well. I find Twain's experience to be representative, and his description is highly exemplary of the inapplicability of scientific knowledge to aesthetic judgments. In this section, I take Mark Twain's aesthetic experience to state that scientific cognitivism may not apply to the practical aesthetic appreciation of nature. The essential problem lies in the negative role of scientific knowledge in the process of making aesthetic judgments.

In the ninth chapter, "Continued Perplexities", of his book entitled *Life on The Mississippi,* Mark Twain recollects his aesthetic experiences from the time he was a beginner on a steamboat up to the moment when he became a professional sailor. His aesthetic appreciation of nature turns from a feeling of pleasure to displeasure, even to a feeling of frustration. When he was a beginner, he did not know the Mississippi river but he did feel pleasure when appreciating it. In contrast, when he became a sophisticated sailor, he learned every aspect of the river; however, he lost the precious aesthetic appreciation of the river. "All the grace, the beauty, the poetry had gone out of the majestic river!" (1962, 65). He makes a comparison between before

> I still keep in mind a certain wonderful sunset which I witnessed when steamboating was new to me. A broad expanse of the river was turned to blood; in the middle distance the red hue brightened into gold, through which a solitary log came floating, black and conspicuous; in one place a long, slanting mark lay sparkling upon the water; in another the surface was broken by boiling, tumbling rings, that were as many tinted as an opal (1962, 64).

and after

> I stood like one bewitched. I drank it in, in a speechless rapture. The world was new to me… Then, if that sunset scene had been repeated… inwardly, after this fashion: This sun means that we are going to have wind to-morrow; that floating log means that the river is rising, small thanks to it; that slanting mark on the water refers to a bluff reef which is going to kill somebody's steamboat one of these nights, if it keeps on stretching out like that; those tumbling "boils" show a dissolving bar and a slick water over yonder are a warning (1962, 65-66).

All the romance and beauty has disappeared from this river. Thus, Mark Twain's experience shows that scientific knowledge may be detrimental rather than helpful to the aesthetic appreciation of nature. In other words, the former aesthetic judgment of nature[2] turns into the latter cognitive

[2] In the terminology of environmental aesthetics, the notion of the aesthetic appreciation of nature is widely used. I would like to change it to aesthetic judgments adequately in this text for the convenience of my argumentation. I doubt that the concept of "appreciation" is inappropriately used in the environmental aesthetics, because "appreciation" presumes the object is beautiful rather than anything else. Certainly, in the account of the theory of positive aesthetics, every object in primary nature is beautiful and valuable to be appreciated (they do not say "to be judged"), in this sense, they say "appreciation", which is reasonable.

judgment of nature with scientific knowledge. Is it true that scientific knowledge makes Mark Twain's feelings of pleasure disappear? The answer is yes. But how did this process happen?

Before I elaborate my answer to the question above, I owe my readers an explanation of the rationality of his aesthetic experience taken as suitable evidence for my argumentation. Primarily I need to confirm that Mark Twain's knowledge about nature, under the condition of his being a sophisticated sailor, belongs to the so-called scientific knowledge of Carlson. It seems to me that Carlson does not give a concrete definition of scientific knowledge; however, he does refer to natural history and natural science, particularly to geology, biology, and ecology.[3] His position is analogous to Walton Kendall's art appreciation. Natural history provides background information on nature and natural science presents categories and functions (purposes) of nature. Obviously, in terms of nature, scientific cognitivism probably can be understood as a function-based or purpose-based model for the aesthetic appreciation of nature.

In Twain's case, scientific cognitivism had been foreign to him until he became a professional; he gained awareness of the meaning of the sunset, floating log, slanting mark, etc. The sunset means a windy day tomorrow, a floating log means the river's rising, and the slanting mark means "a bluff reef." Here "the meaning" in fact indicates functions or purposes of different objects in the river, or objects related to it, in terms of fundamental knowledge in the field of steamboating. Though we cannot know how Mark Twain gained his knowledge, either from a guidebook or training from experienced professional sailors. Regardless, the "meaning" of different objects in the Mississippi River refers to functions (purposes). We can conclude that what he has learned belongs to scientific knowledge in Carlson's sense. Even if someone maintains that Twain's knowledge of the river might be common sense—that "the sunset means a windy day tomorrow" might be basic information to those who live by the river—we could also say that Twain's recognition belongs to scientific knowledge in the sense of Carlson. Carlson does elaborate knowledge in this sense as something "provided by the natural sciences and their commonsense predecessors and analogues" (1995,

[3] See the first section "THE SCIENTIFIC COGNITIVISM". Carlson also uses words such as information, justified belief, common-sense apart from knowledge, but it shows no sign that these terms can be replaced with each other. From my reading, I hold that it may sound more unified if we describe these words as 'function (purpose)-based'. I shall call Carlson's scientific cognitivism as a function(purpose)-based model for aesthetic appreciation of nature.

398). Sometimes Carlson seems to refer knowledge to common sense as well. As he mentions, "this knowledge, essentially common sense/scientific knowledge, seems to be the only viable candidate for playing the role in regard to the appreciation of nature which our knowledge of types of art, artistic traditions, and the like plays in regard to the appreciation of art" (1979, 273). Also, Patricia Matthews summarizes his understanding of knowledge: "Carlson describes the relevant knowledge as that of natural science, ecology, natural history and commonsense" (2002, 37). Thus, it does not matter if Twain's knowledge belongs to a specific category of knowledge or just common sense. We can argue that Twain's knowledge about the river is the so-called scientific knowledge in the sense of Carlson. Now, I shall argue that it is this scientific knowledge that taints the feeling of pleasure in the aesthetic appreciation of nature.

In Kantian aesthetics, there are pure and impure judgments of taste. Pure judgments of taste do not fall under a concept, and as a result, the judgment expresses free and natural beauty. An impure judgment of taste is a combination of pure judgments of taste, which are non-cognitive, and cognitive judgments based on concepts. In Twain's case, if we make his aesthetic judgments of the Mississippi River into simple sentences such as "The sunset is beautiful" (before) and "The sunset is not beautiful" (after), this kind of judgment would be understood as both a pure judgment of taste and a compound judgment of taste.

On one side, that kind of judgment could be regarded as a pure judgment of taste. It is because Mark Twain judges the river as beautiful, which is irrelevant to whether there is a sunset or not. It is not grounded in a concept. On the other side, that judgment could also be deemed as an impure judgment of taste. For he truly knows the meaning (purpose) of the sunset and makes a compound judgment: "the sunset is beautiful, and it fulfills its purpose perfectly." This judgment is made according to the concepts of this object and functions it is supposed to have. The first part of the sentence is a pure judgment of taste; the second part, however, is a compound one, for it is determined by a concept of the object, the sunset, and what it is supposed to be or to do; this judgment demonstrates how well the object fulfills this concept. Nevertheless, the truth is that the second point cannot find grounding in Mark Twain's case. In the situation where he knows the ecological purpose of the sunset, namely it shows whether the wind will blow tomorrow or not, his aesthetic judgment, "The sunset is beautiful", is false. If the first judgment is a pure judgment of taste, then the second cannot be denied as an impure judgment of taste with a "negative" judgment in it.

The comparison by Mark Twain visibly shows that Twain's feeling of pleasure is corrupted after he obtains (scientific) knowledge about the river, including the meanings of the different ways the sun can appear, hints produced by logs floating in the river, implications represented by marks on the water, etc. It cannot be denied that it does exist in cognitive aspects in judgments of taste, but only in impure ones. And it is not hard to conclude that scientific knowledge bears on Twain's appreciation of the natural object. This information can also be found in Kant's theory. Kant holds that in the judging of a free beauty the judgment of taste is pure. When concepts of the given object are presupposed, the imagination would be restricted (5:229).[4] Kant believes that the tattoos of the New Zealanders, even though they may be beautiful, arouse a negative impure judgment of taste about a human being so adorned (5:230). The subtle difference between Twain's case and Kant's theory is noteworthy. The distinguishing point is that Twain's familiarity with the river causes an aesthetically irrelevant judgment of the natural object. His judgments change as his subjective identity changes. At first, he is just an ordinary person who perceives the river which is new to him. Later, he becomes an outstanding sailor. That means that the purposes of his subjective cognitive qualities must be adjusted. Another question inevitably arises: is it the case that someone who has a large amount of knowledge can never be a "pure" appreciator again? Nonetheless, this is not the main problem to be solved here.

As Kant says in the *Critique of the Power of Judgment*, the reason why we find some natural objects beautiful is that they seem to be purposive for our cognitive faculties, in other words, they have been designed perfectly for our pleasure. The Mississippi River which Twain perceives at first shows him only its surface form. The "wonderful sunset," "solitary log," and "slanting mark," and the qualities they represent, provide visually accessible information, which is reflected in Twain's outer intuition. Later, as a professional sailor, he only pays attention to the functions of the river, and hardly judges the river with the approach of pure taste.

Carlson's scientific cognitivism attempts to guarantee objectivity to the aesthetic appreciation of nature. He continuously emphasizes "correctness" and "right." He draws on Kendall L. Walton's "Categories of Art" to argue that knowledge of the natural sciences, particularly in geology, biology, ecology, and natural history enables us to perceive nature in a correct category, as he says, "The natural environmental model holds that in

[4] References to *Critique of the Power of Judgment* follow the pagination of vol. 5 of the Akademie edition. The translations are from Kant 2000.

the appropriate appreciation of nature the required information, justified belief, or knowledge is that which is provided by the natural sciences and their commonsense predecessors and analogues" (1995, 398). But as we can see, even before Mark Twain had learned much about the river, he already knew the "sunset," "log," or "mark." The meanings of these objects belong to the realm of Carson's scientific knowledge, but only in a wider sense, but if in terms of accuracy, they may be no more than common-sense. As I mentioned above, common sense also consists of knowledge as understood by Carlson. From the perspective of Kantian aesthetics, the sunset, if it is indeed beautiful, is not beautiful as a sunset, but because the form of the sunset agrees with a form which the imagination of the appreciator has invented on its own. The aesthetic judgment of nature is not determined by concepts.[5] It gives us an explanation of how Mark Twain can make such an aesthetic judgment of nature while being illiterate of the river. In environmental aesthetics, and in some Kantian aesthetics as represented by Emily Brady, it is argued that knowledge is not always essential for appreciation. Furthermore, Brady states that Carlson's emphasis on scientific knowledge for framing appreciation raises a practical problem for his model (1998, 141). Apart from that, she also suggests a nonscience-based model, to be specific, the imaginative model. This model draws on "our perceptual and imaginative capacities to provide a foundation for aesthetic appreciation of nature" (1998, 142), which is Kantian because it includes "disinterestedness as a guide to appropriate appreciation" (1998, 142). Brady's theory is plausible. In this sense, the aesthetic experience of Mark Twain presents a process leading from "disinterestedness" to "interestedness", and only the first judgment is an aesthetic judgment of nature, while the second judgment is a consequence derived from scientific cognitions of the river.

In addition, the role of knowledge in aesthetic appreciation reflects the faculty of understanding. As Kant says, our cognitive faculties consist of imagination and understanding (5:249). Judgments of taste depend on whether they are determined by imagination or understanding. Both faculties take effect during the process of forming a judgment of taste. But when we make a judgment of taste, it is the imagination, not understanding, that

[5] Nevertheless, this is only true in respect to the judgment of beauty but not in respect to Kant's judgment of the sublime. Here I shall only discuss the case of natural beauty of Kant's judgment in that the original aim of environmental aesthetics is natural beauty, but the sublime should not be neglected. In Hepburn's "sand and mud" example, he also argues on natural beauty instead of the sublime. In addition, Carlson's scientific cognitivism does not specifically differentiate these two cases. I would say it is promising to make another comparison in the case of the sublime, but in this text, it would seem far-fetched.

reacts to the representation of nature, even though imagination is likely connected with understanding. As Kant declares, "In order to decide whether or not something is beautiful, we do not relate the representation by means of understanding to the object for cognition, but rather we relate it by means of the imagination (perhaps combined with the understanding) to the subject and its feeling of pleasure or displeasure" (5:203).

If we clarify the role of the faculty of understanding in the judgment of taste, the role of knowledge in the aesthetic appreciation of nature can be elucidated as well. To put the question in another form: to which extent does the faculty of understanding take effect in a judgment of taste so that the judgment of taste can be separated from a cognitive judgment? Kant's solution to this question is that, in aesthetic judgment, imagination and understanding work together with "free harmony," or that aesthetic judgment is the result of "free play" between imagination and understanding. As we can see, the faculty of imagination itself has no boundaries, but the faculty of understanding is lawful so that it can help to determine judgment. Thus, "free" here is attributed more to the faculty of imagination.

Imagination provides intuitions, while at the same time understanding supplies it with determinate concepts. In a cognitive judgment, the faculty of imagination is dominated by the faculty of understanding, which means intuitions must be subsumed under determinate concepts. In the aesthetic case, it is the contrary; it ends up in a continued exchange between imagination and understanding, "no determinate concept of the understanding ever proves adequate to subsume the manifold of intuitions presented by the imagination" (Rueger 2007, 143). Twain's regret is produced because his judgment of the river turns into a cognitive one, in the end, moreover, an aesthetic one can never be made again due to the overwhelming domination of his faculty of understanding over the imaginative faculty in the appreciation. From that, we can learn about the vulnerability of imagination.

Carlson makes attempts to ground objectivity for the aesthetic appreciation of nature by imposing scientific knowledge on subjectivity. In his sense, to make certain the appropriation of aesthetic appreciation of nature, subjects must experience nature with premier knowledge. This model may appear rough because it overemphasizes the role of knowledge in the appreciation of nature. Besides, this model fails to explain that to which extent scientific knowledge plays its role so that the aesthetic quality of nature appreciation can be guaranteed. In Kant's case, he also intends to find an objective ground for the pure judgment of taste. His solution to it is the universal validity of judgments of taste. In the following section, we can examine the differences between these two formulations.

"Free" Nature vs. "Objective" Nature

In this section, I argue that Kant's "free"-nature approach may be more appropriate for the aesthetic appreciation of nature than Carlson's "objective"-nature approach. As Carlson's scientific cognitivism puts it, when we appreciate nature, we may appreciate forms, such as shape, color, etc., just as we appreciate art. But if we want to make correct aesthetic judgments, and experience deeper appreciation, it is essential for us to confirm its correctness. It is necessary for us to obtain knowledge of the appreciated objects, and know aspects of nature that make the categories of natural objects clear so that we can correctly appreciate them in the proper categories. Also, we must grasp the knowledge of how we should appreciate them (Carlson 1981, 17). His approach is to justify the "appropriation" of the aesthetic appreciation of nature by knowledge, in his sense, which means something can demonstrate an "objective" nature.

It seems like Carlson's scientific cognitivism is similar to the notion of "perfection" [*Vollkommenheit*] of the rationalists from the eighteenth century. This so-called "perfection" refers to the concept of what the judged object is supposed to be, and this resembles "right categories" in Carlson's sense. As previously mentioned, we can consider Carlson's scientific cognitivism as a function(purpose)-based model. Unlike the rationalists, Kant argues that the judgment of taste about beauty is "entirely independent from the concept of perfection" (5:226) in the *Critique of the Power of Judgment*. Thus, the Kantian theory may help state the weakness of Carlson's function-based model.

It is the question of how can an aesthetic appreciation be possible while containing cognitive aspects, which is essential for us to elucidate. Or, how can there be a guarantee that natural objects will be both "free" (aesthetic) and "objective" (on their terms) in aesthetic appreciation at once? I aim to explain why Carlson's scientific cognitivism fails to demonstrate cognitive aesthetic judgment as aesthetic, in contrast, the Kantian strategy is so convincing that it is reasonable to see how an aesthetic appreciation of nature can contain cognitive components.

It is well known that Kant regards natural beauty as "free beauty" and believes that such beauty is irrelevant to any concepts (5:229). In the "Analytic of the Beautiful," Kant argues that judgments of beauty have contradictory characteristics. On the one hand, they provide a feeling of pleasure, which is "subjective" rather than "logical," namely, they are irrelevant to cognition of the objective features of objects to be judged. Aesthetic judg-

ments are made not under a concept, let alone a category. On the other hand, they are universally valid, which means that an object is beautiful during the formulation of aesthetic judgment. One is entitled to demand an agreement in the name of everyone else. These judgments of beauty are non-cognitive; they are not based on the concepts of judged objects, and they refer to a pleasurable state of the subject. But do any cognitive judgments exist at all? They do, but not as aesthetic judgments, nor judgments of taste. Aesthetic judgments are not cognitive. No concept should be involved in the aesthetic appreciation of nature. Judgments of taste in the "pure" form are non-cognitive judgments. They are not based on the concepts of objects to be judged. But how does Kant solve the dilemma of judgments of taste—subjective while universally valid? According to Kant, judgments of taste are subjective rather than cognitive in that they refer to the pleasure of the subject rather than the concepts of the object. They are universally valid since every human being can have cognitions. The universality of judgments of taste is based on the universality of cognitions. After that, (pure) judgments of taste possess an *a priori* principle.

Nevertheless, it is remarkable that although Kant's idea of "adherent beauty" violates this theory, it does belong to another type of beauty apart from "free beauty." Kant gives primacy to free beauty over adherent beauty since he has found the *a priori* principle for free beauty and he regards beauty as a symbol of morality because of the freedom of nature.[6] In the third *Critique*, he writes some words in §16 for adherent beauty. He claims that beauty consists of free beauty and adherent beauty, in which the latter depends on a judgment of perfection. Adherent beauty appears to rely on

[6] As for the primacy of free beauty and the history of adherent beauty, see references such as Robert (2018, 327). As he says, "As long as Kant had not found a way of justifying the claim to universal validity of 'pure' judgment of taste, he may have thought that beauty combined with usefulness had a more secure (hence, 'self-sufficient') claim to validity than beauty without usefulness. Sometime in the 1780s, and likely toward the second half of the decade, Kant thought he had found such a justification: a 'deduction' of 'pure' judgments of taste." In the pre-critical treatise, Kant characterizes the adherent beauty as "self-standing" [*selbst-ständig*] in that the grounding in concepts help strengthen the enduring quality of judgments of taste. Based on this point, it appears that it does fit the fact when a person subordinates Kant's theory of beauty roughly into anti-cognitivism, though the anti-cognitive free beauty draws more of his attention later in his critical period. Apparently, the opposite situation takes place in his pre-critical period. It is not until the 1780s when Kant "suddenly" discovers the *a priori* principle for free beauty that he instead uses "self-standing" to describe free beauty. This transformation indicates the primacy to free beauty in Kant's theory, and it also shows Kant's self-added philosophical aim to connect aesthetics and teleology, nature and freedom.

concepts, and due to that, it is not pure beauty. I tend to call "adherent beauty" the "unified model" of Kant in that the judgment of "adherent beauty" is a compound judgment, which unifies an aesthetic aspect and a teleological (cognitive/objective) aspect. It immediately evokes a paradoxical point; namely, why adherent beauty should be considered in terms of beauty at all. Rueger argues that the reason is due to "the conjunctive view of such judgments" (2008, 543). As he says, it seems that the conjunctive account of judgments of adherent beauty connects naturally with a view about "how to focus on the experience of free beauty by abstracting from the concepts involved in judgments of perfection" (2008, 543). In other words, the cognitive aspect in compound judgment might be ignored, and what remains is rightly a pure judgment of taste. Then Carlson's function-based model seems to correspond to the cognitive part of Kant's unified model. What is lacking in Carlson's model is precisely a pure judgment of taste, or to be specific, a sense of "free" nature. His approach of taking concepts, as a prerequisite of the appreciation of nature, disobeys the basic principle of aesthetics, so it is hard for the appreciation of nature to be an aesthetic one.

In the Kantian sense, "free beauty" emphasizes the "free;" the imagination operates without the constraint of concepts, or it is a "free harmonious play" of the faculty of understanding and imagination. It indicates that natural objects are not aesthetically judged via concepts or categories. Nature itself should be free. Only when nature appears to subjects freely can they make an aesthetic judgment of nature. Nature's free appearances can reflect the subject's free imagination. It is a bilateral mechanism. Scientific cognitivism intends to let appreciated nature be "objective"; however, it fails to keep the freedom of nature. Carlson does not notice that knowledge can hardly be deemed as really "objective," because knowledge is no more than representations of intellectual thoughts on nature, rather than the real truth of nature, so it is unable to ensure the objectivity of nature, not to mention the appreciation of nature.

In the academic field of environmental aesthetics, there are various assertions and advocations, which have one thing in common: the imperative to appreciate nature "as it is," or "on its terms," and not as art nor anything else. Since the 1960s, this strong argument coincides with a high sentiment to restore the significant role of nature in aesthetics. Drawing back on the history of research on natural beauty, the primacy of nature reaches its peak in Kantian aesthetics. Adorno argues that it is Kant who gives primacy to natural beauty (1970, 97-99), for Kant gives the aesthetic experience of natural beauty a significance of morality, which the experience of artistic

beauty lacks (Rueger 2007, 145). Even in Kant's theory, there is no sign that the role of knowledge or the objectivity of nature should be valued in aesthetic judgments. Rather, when the proportion of understanding dominates over the faculty of imagination, it will result in the aesthetic judgment turning into a cognitive judgment. Nevertheless, it is still an aesthetic judgment in the case of "adherent beauty." Thus, in the appreciation of natural beauty, subjects don't have to consider the objectivity of nature. Nature freely appears to us, and we freely appreciate natural beauty.

As it is known, Kant holds a subjective perspective on natural beauty; therefore, we can hardly say that Kant's approach aims to maintain the objectivity of nature. However, I still want to bring up the principle of aesthetic disinterestedness here to discuss the weakness of Carlson's scientific cognitivism. In the first moment of the judgment of taste, Kant introduces the notion of disinterestedness to distinguish the feeling of pleasure in three different cases: the beautiful, the agreeable, and the good. As for the meaning of interestedness, Kant says, "the satisfaction that we combine with the representation of the existence of an object is called interest" (5:204). Thus, disinterestedness is not relevant to the existence of an object. Only when the feeling of pleasure, combined with the beautiful, is independent from the existence of an object can a judgment of taste be made. Kant keeps the objectivity of natural objects, to be judged through an abstraction of subjective interests, away from the natural objects' existence. Thus, disinterestedness is an attempt to pursue the objectivity of the activity of the aesthetic judgment of natural beauty. As such, the notion of disinterestedness affirms that the perception of an object is "for its own sake" rather than for an observer's sake, or we say, the notion of disinterestedness presents an "objectivity without the object," in which the objectivity is referred to the universality of the pleasure with the beautiful. However, Arnold Berleant holds that a disinterested attitude may have been appropriate for eighteenth-century art and aesthetics but appears to be outdated for contemporary aesthetics. According to him, disinterestedness leads to the "transformation of experience into an intellectual puzzle that loses sight of the perceptual immediacy at the heart of [the] aesthetics" (Berleant, Hepburn 2003). Contrarily, Ronald Hepburn argues that aesthetics has no obligation to remodel itself as a response to any trend or fashion in the contemporary developments of arts. He holds that disinterestedness has several roles, including a formal role, an epistemological role, and the role of "overcoming of the anxious flux of everyday events and the 'interested' activity (self-interested, most often) that aims, but fails, to bring calm out of conflict" (2003). What's more, disin-

terestedness indicates how to experience, to appreciate, or to grasp without interest. As Hepburn says, "To me, there is no problem about including cognitive components within an aesthetic whole. In general, aesthetic experiences would become greatly impoverished without them" (2003). From the perspective of Carlson's function-based model, a person can hardly appreciate natural objects "without interest," because the scientific knowledge in their sense is related to purposes, utilization, or kinds of natural objects.

Following the study above, it is not difficult to notice that scientific cognitivism appears to be a small revival of the rationalists' view from the eighteenth century. In response to the rationalists' view, Kant put forward the notion of "free" beauty. Nevertheless, it does not mean Kant can be directly included in the anti-cognitivist school. "Free" beauty gains more attention because free beauty, in nature, contributes more to Kant's theory of morality than adherent beauty. In this sense, Carlson's model concentrates excessively on the purposes of natural objects, but it turns out that this model is powerless not only to undertake the ideal objectivity of natural objects but also to satisfy the basic aesthetic requirement.

All things considered, scientific cognitivism is a theory celebrated in the background of the environmental movement, which has an eager requirement to rebuild the model of the appreciation of nature, protecting the environment to the greatest extent, while preserving its beauty. In this sense, this theory is more useful for decision-makers and authorities responsible for environmental protection or design, rather than for appreciators. Scientific knowledge may decrease feelings of pleasure in an aesthetic judgment. Sometimes a feeling of pleasure is produced by innocent or pre-cognitive wonder. Scientific knowledge might constrain the free wings of imagination. As Zangwill says, "I think childlike wonder is often more appropriate" (2001, 224). And in the appreciation of nature, where the cognitive faculty suppresses the imaginative faculty (sensations, intuitions), it is less likely to be deduced as a judgment of free beauty. It can hardly be accepted as an approach of appreciating nature in its terms.

It is inappropriate to make an analogy of the aesthetic appreciation of nature with the case of art. The appreciation of art may require knowledge of art history and art criticism, but art is produced to fulfill various purposes. Natural creation, however, is a different case. In the aesthetic appreciation of nature, natural objects accidentally reach a correspondence with subjective satisfaction, which is not determined by any concepts of the objects. One is not required to know different representations of a natural object or to have

a scientific explanation before one can make an aesthetic judgment. To recapitulate, the two problems in scientific cognitivism are: (i) knowledge does harm to pleasurable feelings on the practical level of the aesthetic appreciation of nature; (ii) on the theoretical level of environmental aesthetics, it pursues the intangible objectivity of nature rather than the representations of nature and turns out to be another adjacent analogy to art theory. No matter if in a practical sense nor a theoretical sense, scientific cognitivism can hardly lead to an appropriate aesthetic appreciation of nature.

Bibliography

1. Adorno Theodor (1970), *Ästhetische Theorie*, Frankfurt: Suhrkamp.
2. Berleant Arnold, Hepburn Ronald (2003), "An Exchange on Disinterestedness", *Contemporary Aesthetics*, 1.
3. Brady Emily (1998), "Imagination and the Aesthetic Appreciation of Nature", *The Journal of Aesthetics and Art Criticism*, 56, pp. 139-147.
4. Carlson Allen (1979), "Appreciation and the Natural Environment", *The Journal of Aesthetics and Art Criticism*, 37, pp. 267-275.
5. Carlson Allen (2005), "Budd and Brady on the Aesthetics of Nature", *The Philosophical Quarterly*, 55, pp. 106-113.
6. Carlson Allen (1995), "Nature, Aesthetic Appreciation, and Knowledge", *The Journal of Aesthetics and Art Criticism*, 53, pp. 393-400.
7. Carlson Allen (1981), "Nature, Aesthetic Judgment, and Objectivity", *Journal of Aesthetics and Art Criticism*, 40, pp. 15-27.
8. Carroll Noël (1993), "On being Moved by Nature: Between Religion and Natural History", [in:] *Landscape, Natural Beauty and the Arts*, eds. S. Kemal and I. Gaskell, Cambridge: Cambridge University Press.
9. Clewis Robert R. (2018), "Beauty and Utility in Kant's Aesthetics", *Journal of the History of Philosophy*, 56, pp. 303-335.
10. Godlovitch Stan (1994), "Icebreakers: Environmentalism and Natural Aesthetics", *Journal of Applied Philosophy*, 11, pp. 15-30.
11. Hepburn Ronald (2004), "Contemporary Aesthetic and the Neglect of Natural Beauty", [in:] *The aesthetics of natural environments*, eds. A. Carlson and A. Berleant, Peterborough: Broadview Press.
12. Kant Immanuel (2000), *Critique of the Power of the Judgment*, trans. P. Guyer and E. Matthews, Cambridge: Cambridge University Press.
13. Matthews Patrick (2002), "Scientific Knowledge and the Aesthetic Appreciation of Nature", *The Journal of Aesthetics and Art Criticism*, 60, pp. 37-48.
14. Rueger Alexander, (2008), "Beautiful Surfaces: Kant on free beauty and adherent beauty in Nature and Art", *British Journal for the History of Philosophy*, 16, pp. 535-557.
15. Rueger Alexander, (2007), "Kant and The Aesthetic of Nature", *British Journal of Aesthetics*, 47, pp. 138-155.

16. Tafalla Marta (2011), "Rehabilitating the Aesthetics of Nature: Hepburn and Adorno", *Environmental Ethics*, 33, pp. 45-56.
17. Twain Mark (1962), *Life on The Mississippi*, London: Oxford University Press.
18. Zangwill Nick (2001), "Formal natural beauty", *Proceedings of the Aristotelian Society*, 101, pp. 209-224.

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