

Rewilding Education in Troubled Times; or, Getting Back to the Wrong Post-Nature.

Michael D. Sitka-Sage¹, Helen Kopnina², Sean Blenkinsop¹ and Laura Piersol¹

¹ Simon Fraser University, Vancouver, Canada

² Institute of Cultural Anthropology and Development Sociology, Leiden University, The Netherlands.
Sustainable Business Programme, The Hague University of Applied Science, The Netherlands

Abstract.

The first part of this paper provides a series of conceptual critiques to illustrate how the recent move to inaugurate a “post-nature” world works to vindicate anthropocentric perspectives and a techno-managerial approach to the environmental crisis. We contend with this premise and suggest that troubling nature has profound implications for education. In the second part, we provide case studies from nature-based programs in The Netherlands and Canada to demonstrate how anthropocentric thinking can be reinscribed even as we work towards “sustainability”. Despite the tenacity of human hubris and the advent of the Anthropocene, we suggest these troubled times are also rich with emerging “post-anthropocentric” perspectives and practices. As such we offer “rewilding” as a means to think about education that moves beyond the romantic vestiges of “Nature” without lapsing into delusions of human exceptionalism.

Key words. post-nature · wilderness · rewilding · sociomateriality · anthropocentrism · ecocentrism · critical pedagogy of place

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Corresponding Author: Michael D. Sitka-Sage, Canada.

E.mail: mderby@sfu.ca

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Introduction

Asserting that “nature” is an idea is far from saying that it is only an idea, that there is no concrete referent out there in the world for the many human meanings we attach to the word “nature”. There are very real material constraints on our ideas and actions, and if we fail to take these into account, we are doomed to frustration if not outright failure. The material nature we inhabit and the ideal nature we carry in our heads exist always in complex relationship with each other, and we will misunderstand both ourselves and the world if we fail to explore that relationship in all its rich and contradictory complexity (Cronon, 1996, pp. 21-22).

Indeed, wilderness deconstruction—the literal kind, not the abstruse theorizing of academics influenced by postmodern literary criticism—concerns us most. Of primary importance is how “Anthropocene” thinking is influencing the communications and strategies of on-the-ground conservation practitioners... If conservation is to be framed primarily within the context—and acceptance of—human domination of the planet, there will continue to be profound consequences for life... Apparently each generation will have its “great new wilderness debate.” (Butler, 2014, pp. xiv-xv).

This paper is comprised of two main sections that converge in the conclusion. The first section is a series of conceptual background conversations that build upon each other to posit that anthropocentrism still informs much of the recent “post-nature” discourse in environmental education. The second section explores similar ground, but focuses on three case studies that illustrate typical kinds of practices and language in environmental education initiatives in The Netherlands and Canada. These cases involve thoughtful educators working in intentional school settings with the express purpose of nurturing environmental awareness and eco-ethical commitments. And yet, as the cases will show, the ecological principles guiding these programs are often undermined by subtle but consistent anthropocentric messages conveyed in the language and by the material conditions of the learning experience. We

suggest that the reinforcing of human exceptionalism that we witness in many of the case studies derives from the kind of unexamined assumptions we examine in the first section of this paper. In the conclusion, we offer some thoughts regarding the concept of *rewilding* education and point towards some new theorizing that seeks to challenge environmental education to move towards the “right” kind of “post-nature” world; one where we work to move beyond the will to appropriate and towards a new natural contract with a more-than-human world.

Section 1: Part 1: The Trouble with Troubling Wilderness: Wherein we posit the search for a post-nature world that moves beyond anthropocentrism.

While an intriguing “great wilderness debate” rages on (Callicott & Nelson, 1998; Nelson & Callicott, 2008) in geography, the conservation sciences, cultural studies and beyond—and informs the philosophical motive for writing this paper—our intention here is to offer something more concrete for educators and others working for environmental justice. Indeed, what concerns us most is the devastation of the “concrete referent:” the living beings and material assemblages formerly known as “nature.” As environmental educators working in the so-called Anthropocene it is incumbent upon us to explore the complex relations between material configurations and the varied, often contested, discourses attached to “things” like *nature, wilderness, progress, environment*, and especially *human*. While troubling foundational categories may seem an overly “philosophical” undertaking at first, we suggest that environmental education research already bears a rich lineage of such work and that, as practitioners on-the-ground, environmental educators will play a key role in shaping these debates in the future. Confessing ultimate concern for “nature” is not intended as a rhetorical strategy to expedite a certain position in the debate, so much as a candid gesture disclosing our *ecocentric* ethical commitments. By *ecocentrism* we mean, in the simplest terms, an ethical view of “nature” as having intrinsic value and perspectives beyond the human. And that ecological destruction is

rooted, in part, in its converse, *anthropocentrism*: the view that all value and meaning inheres in one uniquely special species—humanity. As ecological ethicist Patrick Curry explains, “The rest of the Earth, including all its places and creatures, is entitled to respect only instrumentally, insofar as it is needed for humans to ‘progress’” (2017, p. 5). It is this insistence upon an “ecological reality” that is of primary importance in a world where “Anthropocene thinking” is employed to advance a permanent end to the debate. For instance, Erle Ellis, director for the Laboratory for Anthropogenic Landscape Ecology, sums up the “neo-green” (Kingsnorth, 2014) or “post-wild” (Marris, 2011) position with acerbic closure: “Nature is gone... You are living on a used planet. If this bothers you, get over it” (as cited in Wuerthner et al., 2014).

We get it—fossil fuel particulates in the atmosphere envelope the globe, and commingle with Fukushima radiation carried on ocean currents, and it is the “end of nature” (McKibben, 1999), and the time has come to rethink “pristine” notions of “wilderness” (Cronon, 1996), and in order to have “ecological thought” we must relinquish the very notion of a capital “N” (Morton, 2007, 2010). In these ways, we too advocate for a “post-nature” world—but one characterized by carefully rethinking some of our foundational notions (like say, human supremacy, or the political agency of nonhuman forces, or the logic and sustainability of *homo economicus*).

Regrettably, much of what passes for “Anthropocene thinking” these days seems more concerned with distorting and appropriating science and environmental philosophy to legitimize the “wrong” kind of post-nature world. A world of business as usual, where anthropogenic mass extinction and climate catastrophe is not framed as a clarion call to political conscientization (Esteva & Prakash, 1998; Kahn, 2010), or a great turning (Korten, 2006), or an earth democracy (Shiva, 2005), but rather evidence of the apotheosis of human and capital to god-like geological forces (see Moore, 2016). It simply does not follow, for us, that because we live on a “used planet” and the time has come to contest the uncontested nature of “nature,”

ipso facto, We are “the god species” (Lynas, 2011). This is what we mean by getting back to the “wrong” post-nature world.

As French philosopher Michel Serres has maintained, the globalization of pollutants is not indicative of some emerging omnipotence, but rather the colonial hubris of the “species” writ on a planetary scale. As Serres has written: “The giant garbage dumps of the cities mark the collectivity’s appropriation of the nature surrounding the cities. As we never cease to dirty our surroundings, we (*who we?*) appropriate them without noticing it. Don’t we actually admit as much when we say *environment*? That which surrounds man makes him into the center. We never stop calling him ‘owner.’ At the limits of growth, pollution is the sign of the world’s appropriation by the *species*” (2011, p. 53).

For us, moving towards a post-nature world thus requires post-anthropocentric ways of thinking in order to steer “us” (moderns, industrialists, colonial settlers, educators, etc.) away from the will to appropriate. While this is by no means an original thesis (Lupinacci & Happel-Parkins, 2015; Quinn et al., 2015), we hope to illustrate some of the practice-based challenges of (un)learning anthropocentrism through our case study research.

Section 1: Part 2: The Future is Exceptional: Wherein we illustrate the anthropocentric logic informing techno-scientific moves to manage the environmental crisis

In his book, *The World We Made* (2013), British environmentalist Jonathon Porritt relinquishes the doom and gloom tactics of environmental alarmism and looks back from an “alternative” 2050 to tell the story of how we got “our world back from the brink of collapse” in order to inaugurate “genuine sustainability.” Despite the staggering scope of transformations required to get there, the story remains doggedly upbeat and aims to celebrate afresh “the collective genius of what it is that makes the human species so special” (p. 6). The central character, Alex McKay, happens to be a history teacher who enters the profession in 2022 with deep apprehensions about how to inspire students in a time when an archaic model of progress has ravaged both the biosphere and the human spirit. His early

21st century cynicism is eventually rendered obsolete, however, as a brave new “technotopia” emerges.¹ Porritt’s world is one where “philanthro-capitalist enterprises” ameliorate the lives of the urban poor around the globe, nanotechnology and empathy enhancing drugs allow for longer and happier lives, and universal internet connectivity (including brain implants for some) combats government corruption and greatly improves education. In concluding his future history, Alex recounts a brilliant psychology professor who inspired him back in the brutish days of our present, who helped pioneer a movement to focus public policy on early childhood education. His pedagogical advice: “Limitless love, total security and lots of fun and games – forget the rest! If it’s a better world we’re after, just make sure that every child reaches the age of six feeling radiantly happy” (p. 270). Making claims against radiant happiness for children is never a popular position; however, we are compelled to contend with the Disney-like “warm glow” (Foster, 2015, p. 11) undergirding such visions of a smooth transition to ecotopia vis-à-vis pedagogies of “limitless love” and technical optimism. Even without lapsing into Lovelockian doom mongering (Lovelock, 2015), surely we must recognize that education in the so-called Anthropocene will be more existentially trying and pedagogically complex than simply getting kids outside and forgetting the rest? Surely, the mainstreaming of books with troubling titles like: *Requiem for a Species* (Hamilton, 2010), *The Sixth Extinction* (Kolbert, 2014), and *This Changes Everything* (Klein, 2014) ring a warning bell that the “environmental problem” is more complex than these proposed technocratic management solutions assume?

¹ For a related critique of a future characterized by technical management and technological breakthrough see Crist, 2012. We share in the sense that what is most repugnant about such visions is not so much their technological optimism per se, but the anthropocentric marginalization of all

Scholars within the field of environmental education have been positing the need to examine the cultural-historical roots of the ecological crisis in order to change hearts and minds for decades (Martusewicz et al., 2014; Stevenson et al., 2013; McKenzie et al., 2009; Gruenewald & Smith, 2008). And yet, when tasked with considering the future of environmental education—particularly in urban contexts—there is a troubling tendency to gloss over some of the more difficult existential quandaries and focus on revitalizing hope in the indefatigable “genius” of our species (see Kopnina, 2014 for critique).

This is precisely the kind of “Anthropocene thinking” we find troubling and if we are to be ushered into a *post-nature* world, we suggest the

move begin with careful, sustained and rigorous reconsideration of other conventional categories, exploring what notions like *post-progress*, *post-individualist* and, perhaps most importantly, *post-human* might mean for education in the coming decades (for recent examples of such work see Lloro-Bidart, 2016, 2015; Affifi, 2011).

Section 1: Part 3: Moving Beyond the Human in Environmental Education: Wherein we explore the challenge of anthropocentrism, the quick “get outdoors” fix, and the impact of sociomaterial practice

Reading through recent volumes of journals such as *Environmental Education Research*, *The Journal of Environmental Education*, or *The Canadian Journal of Environmental Education*, one gets the sense that never before in the history of Western thinking has anthropocentrism been so disputed and openly disparaged (for examples, see Kopnina, 2015, 2016). And this notwithstanding the fact that thinking in environmental education, in many respects, tends to lag behind the “nonhuman turn” (Grusin, 2015) or the move to “more-than-human agency” in numerous

other-than-human life: the “totalitarian conversion of the natural world into a domain of resources to serve a human supremacist way of life, and the consequent destruction of all the intrinsic wealth of its natural places, beings, and elements” (p. 149).

fields such as ecofeminism (Plumwood, 2002; Mathews, 2005), the environmental humanities (Goodbody & Rigby, 2011; Rose, 2011), critical geography (Braun, 2005; Castree, 2013;) and ontological anthropology (Kohn, 2013; Viveiros de Castro, 2014; Tsing, 2015) just to name a few. So it comes with some dismay that while, on the one hand, a profound realization appears to be unfolding across diverse academic fields; there is, on the other hand, the move to commodify an expanding array of “natural resources” under the aegis of neoliberalism. Moreover, the latter seems increasingly normative in the public sphere to the point of being considered “commonsense” (Heynen, 2007; Henderson et al., 2017;).² It would seem human-centeredness is truly the bedrock presupposition of the “Western mind,” as even committed conservationists, urban designers and, regrettably, environmental educators seem loath to trouble the naturalization of human dominion (Crist, 2004; Kidner, 2000). This is, perhaps, most apparent in the widespread adoption of “sustainable development” as the principle objective of environmental education despite widespread critique that, as currently conceived, it is patently anthropocentric in its ethical neglect, or even acknowledgement, of the other-than-human beings that constitute “our planet” (Kopnina 2012; Kopnina & Gjerris, 2015; Lotz-Sisitka et al., 2015; Kopnina & Cherniak, 2016; Jickling & Sterling, 2017;).

The deepening of anthropocentrism in recent decades vis-à-vis neoliberal “restructuring” and “sustainable development” discourses has profound implications for environmental education (Derby et al., 2015). Pushed to make the environmental conversation relevant thinkers have chosen to focus on the deleterious human impacts. Work has been

done with respect to health and wellness, for example, where it has been noted that children are becoming increasingly alienated from “nature,” suffering from so-called “nature deficit disorder” (Louv, 2008). The obvious pedagogic response to this deficit, despite the fact that it ignores the health of the natural world while at the same time making it a backdrop for human health, echoed in environmental education conferences across the globe, is to “get children outside”. Get children to directly encounter more “nature,” including the “zoopolis” as Louv and green urbanists refer to multispecies urban environments (pp. 245-270). While this is undoubtedly a key component of any effective environmental initiative, it does not *necessarily* trouble anthropocentric inscriptions of power manifest in the *sociomateriality* of urban or, as we shall see, “natural” environments and thus risks reinforcing colonial relations and human mastery as self-evident. We cannot simply get outside and forget the rest.

Attending to the way everyday experience is shaped by the entanglement of social discourses and material circumstances has been recently described as sociomaterial practice.³ As McKenzie & Bieler explain, “Such an orientation to practice links both social and material conditions (e.g. social relations, other species, physical context, objects, etc.) to human consciousness and learning, as well as considers the relationship between such learning and broader cultural change” (2016, p. 2). Tracing the sociomaterial in education thus entails foregrounding the materiality of learning to make visible the historical trajectories, foundational categories (i.e. nature, human, progress, etc.), and problematic binaries (i.e. nature/culture, human/nonhuman, self/other, etc.) that *enact*

² For a collection of works concerned with environmental education in the neoliberal climate see the special issue of *Environmental Education Research* Volume 21, Issue 3, 2015, guest edited by David Hursh, Joseph Henderson and David Greenwood.

³ For examples of educational texts drawing on notions of sociomateriality see *Critical Education and Sociomaterial Practice* (McKenzie & Bieler,

2016), *Education in the Age of Biocapitalism* (Pierce, 2013), or *Emerging Approaches to Educational Research: Tracing the Sociomaterial* (Fenwick, Edwards & Sawchuk, 2011). For principle texts explicating sociomateriality see *Reassembling the Social: An Introduction to Actor-Network Theory* (Latour, 2005) and *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Barad, 2007).

the taken-for-grantedness of educational events. This differs from conventional approaches drawing on phenomenology and social constructivism in that there is an explicit move to de-center the human by attending to the agency of material, more-than-human assemblages.

The material includes tools, technologies, bodies, actions and objects, but not in the way that treat these as brute or inherently distinct from humans as users and designers. The material also includes texts and discourses, but not in ways that focus solely on linguistic, semiotic, intertextual and cultural matters. The material is entangled in meaning, not assumed to be separate from it (Fenwick et al., 2011, p. vi).

While the implications of sociomaterial practice in education are still emerging, we share in the sense that recent turns towards understanding agency as an expression of sociomateriality and practical experience, offer some promise for cultivating post-anthropocentric pedagogies. As McKenzie and Bieler maintain, such “critical situated learning” aims to “move beyond conceptions of agency understood as located within human subjects and related understandings of the world as passive or inert matter—an anthropocentric view of the world that has plagued us since the enlightenment” (2016, p. 14). Indeed, sociomaterial practice is only one of the latest incarnations of a “lineage” in environmental education research calling for the “decentering of anthropocentric assumptions about language, agency, and meaning” (Fawcett, 2013, p. 412). To this end, we hope these case studies will challenge the banal charge that children simply need to get outside and encounter nature and contribute to how we think about (un)learning anthropocentrism in order to inaugurate a post-nature world characterized by humility and a celebration of entangled interdependence. This would also entail environmental education practices that can challenge narratives of human dominion both explicitly in terms of discourse analysis and tacitly in terms of what stories and learning experiences the sociomaterial conditions or relative “wilderness” of the learning experience enables.

Section 2: Case Studies: Wherein we introduce, through examples, some of the challenges of rewilding education.

In these case studies we would like to illustrate some of the challenges we have experienced and

witnessed in attempts to rewild education and (un)learn anthropocentrism; first by way of two Dutch examples, and then expanding the discussion by adding a more “immersive” educational experience from Canada. The objective here is not to needlessly disparage well-meaning environmental initiatives or teachers, but rather to provoke discussion about the complexities of realizing ecocentric pedagogies in a world increasingly appropriated by the wrong kinds of Anthropocene thinking. We present the case studies in order of deepening immersive levels of direct contact with nature-on-its-own-terms i.e., a school gardening initiative, a forest week, and eventually total immersion in a relatively wild place more or less full-time.

The Netherlands Case Studies

The Netherlands is a territorially small nation consisting of 41,543 kilometers, including water, but densely populated with over 17 million people at the rate of 501 people per km² and rising. Much of the land is either used for agriculture or industrial development. Due to the lack of land most Dutch “rewilding” initiatives have involved smaller species, with larger ones such as deer and wild cows needing annual “maintenance” and “management” (such as shooting “excessive” populations of herbivores that have neither corridors to move nor natural predators) (described by Kolbert 2012; 2014; and Shoreman-Ouimet & Kopnina 2016). This has led Kolbert (2012) to describe the “movement” as little more than glorified farming and land management. However, despite its relative limitations compared to continental Europe, “rewilding” in the Netherlands has attracted some educational attention. Nature education in The Netherlands is often intertwined with agriculture as “the Netherlands is one of the world's largest exporters of agricultural and

food products, thanks to its innovative agri-food technology. The Dutch agri-food sector is a sustainable source of healthy, safe food that is produced with respect for nature and the environment.”⁴ Thanks to generous subsidies to domestic farmers, the Dutch are also able to export their produce to many countries in Africa.

Dutch environmental education includes multiple stakeholders (schools, communities, garden centers, local businesses, NGOs, etc.). The Dutch school curriculum typically involves a number of nation-wide “nature activities,” including “*schooltuinen*,” a “school gardens” program in which pupils are allocated small plots of land to learn basic horticulture, and “*bosweek*” or “forest week,” when pupils perform nature-based “scouting activities” (Kopnina 2011a; 2011b). Other urban environmental education for children is characterized by ad hoc initiatives to visit “wild areas” that tend to be typically small parks, to participate in botany, biology, and geology-related coursework.

Schooltuinen/School Gardens

In the case of a Montessori school in Amsterdam, a group of 62 children between the ages of 9 and 11 followed a number of “nature education” directions including the school gardening program. The urban gardening involved children attending to their crops, typically potatoes and cabbages, in a recreation park called Westerpark (described in Kopnina 2013b and 2015c) close to their school. The Westerpark area is largely paved, with most grass carefully trimmed, and trees and shrubberies “maintained” (cut) every few months by municipal workers. The municipality typically sells “green garbage” to energy companies as biofuel to be incinerated as a form of “green energy” (Kopnina 2016). The garden itself is an area of the park used exclusively for educational activities. Alongside outdoor activities targeted at teaching children how to “grow their own food and flowers,” children are also involved in indoor activities in a “garden house” where they receive basic

botany and biology lessons. The children also learn rudimentary facts about the benevolence of Dutch agriculture. As one of the children interviewed stated with pride, “[Dutch] farmers are able to send food to Africa.” The children learn to clear weeds and are allowed to harvest their produce and cut flowers to take home. As one of the teachers explained, “This way they learn how important land is... They learn how to take care of the land.” As a reward for taking care of the land, students, according to the same teacher, learn that “nature feeds them.” At the end of October, when harvesting is complete and all crops and weeds have been cleared, the land is left bare for next year’s gardening activities. The land is prepared by discarding all remaining greens the use of industrial fertilizers (note: this information is not shared with children).

Bosweek/Forest Week

Another event is *bosweek* where children go to a forested area close to Lage Vuursche in Utrecht province for a few days in late Spring. The Lage Vuursche forest covers about 1150 hectares planted mostly in the 19th century and is traversed in many places by paved and dirt roads and contains many private residences and miniature cultivated parks. The children stay and sleep in a specially designated *woonboerderij* (“residential farm”), get involved in “camping and survival type activities” (e.g. learning to cut wood, make fires, tree climbing, “wild” river crossing, and discover basic outdoor “rules and ethics” as the school brochure states). Students are also involved in competitive games, talent competitions and music performances. Of note, children are told “scary stories” about the past when wolves and bears used to roam the territory where their picnic tables with designated camp fire areas are now located. Some of the most memorable experiences, according to the children interviewed, are the role-playing activities (“pretending to be the cavemen!”) and musical competitions inside the house, as well as chopping wood. A few children claimed the things they missed most,

⁴ See <https://www.hollandtradeandinvest.com/key-sectors/agriculture-and-food>

besides their parents, were their phones and video games; however, most children that the researcher spoke to referred to their experience as “fun.”

Some Reflections

As these case studies illustrate, Dutch children are exposed to “natural areas” that are heavily managed and primarily understood to be “working landscapes” (see Wuerther et al., 2014). Yet, educators often frame these experiences as encounters with “the wild.” Thus, even though the authors are outspoken advocates for school gardens (one author even co-funded and managed an award-winning school garden), these places clearly pose a danger of reinforcing the “metaphysics of mastery” if not thoughtfully “mediated” with a post-anthropocentric orientation.

In the case of Dutch school gardens, students are not taught to recognize that “weeds” are wild plants that can potentially contribute to a more biodiverse whole—bees making honey, birds catching bees, etc. They are not taught to see that the barren land requiring fertilizer to be productive after the end of the season as a managed landscape shaped by humans for humans. Producing food and flowers for international markets in fields that promote extremely limited biodiversity seems to be recreated in a miniature in school gardens with students learning how nature functions to “feed them.” A larger lesson drawn from the local gardening activity is that by “taking care of nature” one can make not just one’s household but “even Africa” dependent on their produce. While this article is not about critiquing European agricultural subsidies or food insecurity in so-called “developing nations,” we note how these geopolitical arrangements are normalized vis-à-vis such environmental education initiatives. In other words, while framed as “nature-based” education, the take-away message for most students is the narrative that conservation can be better served if humans become global ecosystem managers and learn to celebrate the “rambunctious human-tended garden” rather than decry loss of wild places” (Marris 2011).

The case of *bosweek* is perhaps even more problematic as the site is framed and

celebrated as “wild” and “natural,” despite the fact that children are engaged in an entertainment-laden program in a heavily managed forest area traversed by roads and where few other-than-human beings beyond the microscopic can flourish. Moreover, children learn that “the animals” that do live in the remaining fragments of wood—for instance, doves and squirrels—are “safer” than the “scary predators” of the past. “Nature” is thus framed as a remediated and “working landscape” that must be well managed to remain “safe” from predators, maintain “ecosystem services” such as food production, wood lots, sport and recreation affordances, and “saved” as a “scenic place” of unique experiences where we ought to try and unhook from our electronic devices, at least, for a while. Children’s interaction with nature or being ‘part of nature’ is associated with continuous pruning, cutting, and consuming, not trusting wild nature to do its work as it has done for millennia before humans have evolved into *homo economicus*.

One key pedagogic implication we would like to reiterate is the way in which valuable sites, activities and experiences, such as school gardens or forest weeks, are framed and critically reflected upon. Rewilding, in this sense, entails co-creating the free space for the possibility of encountering the “alien being” of wilderness in the unexpected and emergent properties of a place or in the design of a learning experience. But also in the ways in which these experiences are debriefed and how we make sense of what happened. Taking hyper-vigilant care with language and metaphor, for example, is one way educators can challenge some of our most basic assumptions in a post-nature epoch and encourage students to think differently about conventionally uncontested categories such as *nature, wilderness, food, animal, weed, etc.* For instance, instead of situating a garden in strictly resourcist terms — a working landscape *for* human utility or a novel background for satisfying learning outcomes—the educator might begin to situate the “garden-as-teacher” (Ostertag, 2015) with its own, sometimes troubling, historical dimensions (such as the colonial role of school gardens in Canadian

residential schools or Nazi Germany),⁵ its own political agency as “vibrant matter” (see Bennett, 2010, chapter 3 in particular), and its own wilderness to the extent that the beings, forces and relations that comprise the garden “elude the mind’s appropriations.” We speculate and hope that by challenging the narratives of management and mastery that children may begin to respond in ways that facilitate less rigidly hierarchical understandings of “nature.”

We suspect one of the most challenging, yet important, lessons with respect to (un)learning anthropocentrism is the realization that while “the natural world” is “useful” and “recreational,” humans also require healthy, diverse and, we argue, “wild” ecosystems (i.e. places that are relatively “nature-on-its-own-terms:” apex carnivores, no roads, “old growth,” etc.) because we *are* “nature” without and within. This does not, however, “naturalize” all human behavior, as William Cronon has maintained, in an attempt to clarify his oft-misread work, “not all ideas or uses of nature are equally defensible” (1996, p. 22). In addition to learning to how to recycle, co-create special places, and grow vegetables, the role of environmental educators ought to be provoking discussion and involving children in thinking about, acting with, and relating to “things” with ecological humility as ethically significant others. This might include re-conceptualizing their homes, schoolyards and, garden patches as homes for a multitude of intrinsically worthy other-than-human beings and subsequently part of a larger interconnected network that requires rethinking “use” (or “non-use”) beyond human utility and economy?

Concretely, a good starting point might be growing “weeds” (perhaps by simply observing what happens to a garden patch without human care). Or observing how bees make their ritual dance to indicate where flowers are and make honey that is used for bees

themselves, not just “for us.” Children might also be asked to think about how their own lifestyles are connected to nature, not to evoke guilt or sadness (though these are appropriate responses), but with an eye to radically rethinking their place in the “Anthropocene” where “human being” means leaving space for others to flourish. There is no doubt that this will be challenging, unconventional, and contentious work, but we propose it is the kind of “real work” called for in a post-nature world. So what if we just did it, took away all the walls, removed all curriculum and just went out in the woods to “start again”? We turn now to a Canadian environmental school project that attempts to teach ecological principles by way a “placed-based curriculum” and “full immersion” in “the natural world.”

Canadian Case Study

In comparison to the Netherlands, Canada is a large and by global standards relatively sparsely populated country with just over 36,000,000 and almost 10 million square kilometers of land with a density of under 4 people per square kilometer. In addition, as a result of the fact that most of its population lives in close proximity to the southern border with the United States, there are still vast tracts of land that are relatively “undeveloped” compared to the Netherlands. Comparatively, Canada has substantial populations of megafauna and areas of wilderness that lie beyond constant human management. This means Canadians tend to have different operating definitions of “nature” and “wilderness” and, possibly as a result, there has been less of a call for “rewilding” per se, but there is a growing push within education towards more nature-based, environmental programs particularly at the early childhood level.

In response to the call for more place-based schooling, the Maple Ridge Environmental School Project (MRESP) was initiated. It began

⁵ For an analysis of school gardens drawing on material feminist and posthumanist scholarship please see the excellent doctoral thesis by Julia Ostertag (2015). Ostertag explores gardens as places to ‘become teachers together’ as a way to

reimagine alternatives for the persistent and familiar figure of the teacher as a rational, autonomous individual working within the closed doors of the traditional classroom.

with two assumptions: the first, that “Canadian culture” (i.e. the dominant settler colonial culture) maintains an instrumental, anthropocentric, and colonial relationship with “the natural world” (Blenkinsop et al., 2016). Secondly, the role of public education, loosely construed, is to induct the next generation into these cultural norms and ways of being. The central research inquiry of the school was thus what role education might play as an agent of cultural transformation in the move towards more ecojust and flourishing ways of being in a more-than-human world. Supported by a grant from the Social Sciences and Humanities Research Council, the school district, and myriad community partners, the MRESP opened its “metaphorical” doors in 2011 (see: <http://es.sd42.ca>). Presently, there are 88 students (aged four to twelve), four full-time teachers, two support teachers, three educational assistants, and a principal. The school has no permanent buildings (there are some yurts and shelters and students occasionally visit libraries and swimming pools “in town”, etc.) and the vast majority of learning occurs outdoors in various forested parks, research forests, rivers and lakesides. Additionally, the project is shaped by a set of ecological principles that attempt to bring all aspects of conventional schooling into question and guide the pedagogy towards place-based and ecological kinds of understandings. Although legally required to teach the provincial curriculum, the MRESP has significant latitude to experiment and think differently to explore new conceptions of learning, teaching, and assessment, while pursuing a curriculum deeply rooted in place.

The Free Time Politics of Nature-Based Play

Picture a boreal rain forest in November. The air is cool and a crisp, yet a subtle fragrance radiates throughout the life-saturated stand of trees. Suddenly, a chorus of excited voices builds in the distance, faint at first, and then drawing closer and closer and louder, until children clad in all manner of brightly colored rain gear burst onto the scene wielding saws and twine. It is “fort time” and students are thrilled to get into “The Village” where they have made structures from windfall (and some sawed) branches and bailer twine. Now that

the initial clearing, cutting and building phases are relatively complete, however, the focus of the free time shifts to play with social relations and dynamics (Derby et al., 2013). A new society is emerging, but what manner of society is it to be?

The building of forest homes, dens, caves, and “forts” has long been praised as part of the development of children and an important part of our environmental education process (Sobel, 2001; also see Donald, 2009 for a critical appraisal of the “fort curriculum”). Here we have an example of what appears to be all the right conditions: the space is certainly not “cultivated” to the extent that the Dutch examples were (although it does occur in a “managed” research forest), as the students are in a second growth forest that rests at the foot of the Coastal Mountains. The learning community and the teachers are committed to being outdoors and to rethinking education in an attempt to become more connected and eco-literate. And the students spend a lot of time relatively unsupervised in this experientially rich, interactive, and relatively “wild” place. And yet, listen in to the words of some of the students interviewed during the “development phase” of the village taken directly from research recordings. The following comes from research notes from the same “free time” period and the conversation in quotations is verbatim (Note: “I” refers to the researcher).

On that particular day, I noticed several of the older boys carrying ominous-looking sticks around that they began loading with invisible bullets, cocking back and taking aim at the sky, firing at will upon enemy fighters, and occasionally, a very real robin. They converge upon one of the larger forts and began to modify its structure, refashioning it into a prison. Other students were starting businesses and beginning to horde sticks and twine in order that they might “sell” the surplus. I frantically searched my rain jacket pockets for my voice recorder and situated myself as a visiting reporter interested in the emerging politics of The Village.

“What kind of buildings are there here in the Village?” I ask a Grade 6 girl.

“Well, I know that there is a McDonalds, and an armoury, a twine shop, a

tattoo shop, a supplies shop and maybe a doctor. We also have two police stations and a jail."

"That is a lot of police."

"Yeah," she says matter-of-factly, "there are some pretty crazy people here."

One of the oldest and largest boys, Travis, emerges quickly as the favored "Prime Minister." He capitalizes on the tangible unrest in the Village over stick stealing and focuses his campaign on a kind of "get tough on crime" enforcement of the law. His party includes most of the older students, who are all promised positions in his caucus should he win the election; social care positions for the girls and police or military positions for the boys. A group of boys forms a perimeter around their Prime Minister elect and travel with him throughout the Village armed with stick-bazookas as he asks the younger students whether he can "count on their vote" in the upcoming election. I manage to inch my way towards them and thrust the recorder in Travis's face.

"Travis, can you tell me what life is like here in the Village?"

He takes on a confident, almost paternal tone, "Until now it has been very unorganized, there has not been a lot of organization." "Yes, but I have noticed an increase in police stations, weapons... is this part of your campaign?"

"Weapons not so much, we do not want to make weapons available to anyone, lots of police stations, yes."

"So was the increase in police presence your idea?"

"Yes I have made lots of changes, lots of security, lots of police, there is a police station just over there."

"Is having more police the best way to... organize this village?"

"Well, I find that if we are out and about and we are out there..."

"What do you think is the root of the criminal activity?"

"Stolen sticks, there are lots of sticks being stolen... and the forest is getting destroyed."

"Could it be that some people have more sticks than others?" I ask?

"Well, yes, but, if... it's all about... look,

we have lots of sticks, it's plentiful, people just do not want to get out there and look, which is why it's not the best thing... Look, I am being sponsored by lots of businesses, I am making sure that they get lots of business."

Some Reflections

Rich in content and contradiction, we first want to draw attention to the fact that while the school is explicitly framed as "place-based," relatively immersed full-time in "natural environments," and interested in listening to and learning from the more-than-human, the students, parents, researchers and even the teachers still enact and reinforce the metaphysics of mastery with troubling frequency. The village rapidly slides from an unspoiled shady grove to a patriarchal state with power maintained through a militaristic and competitive hierarchy; all of which undermines the work of the teachers, the concerned students, and the place itself by ultimately legitimizing this seemingly inevitable anthropocentric utilitarian ethic. This short example, one amongst many, pushes back on two assumptions explored above that permeate environmental education. First, that significant amount of outdoor time with self-directed play will lead to some kind of richer, radiantly happy and more compassionate and ecologically just relationship with the natural world. (Cobb, 1977; Tomashow, 1996). And second, that the "innocent" imaginations of the students are somehow unfettered by cultural norms and orientations such that their interactions with the natural world will allow them to spontaneously perform a more caring, cooperative and interconnected way of being in the world (Taylor, 2013; Instone & Taylor, 2015).

Further to this, we have noted in our research (Blenkinsop, 2014; Blenkinsop *et al*, 2016b) the way many educators, who are deeply committed to environmental education and make eco-oriented claims or requests of the students, still frequently lapse into dominant norms of human-centeredness. For example, one teacher at MRESP, when discussing a swampy area asked, "Is there any value in that space as it is? Other than a giant playground where kids can play and muck around in?"

Thus, despite repeated teachings to respect the other-than-human aspects of place, adult educators and parents (and often the researchers) still consistently framed the natural world as a setting for exploratory play and learning and, in the case of MRESP, only slowly began to recognize place as an agential co-teacher. It is clear that for these teachers rewilding is a slow process involving constant reflexivity. They must reconsider their language and pedagogical practices, their responses to children, and their assumptions with regard to “nature” because all have been profoundly conditioned by a dominant culture of anthropocentric norms, even (and perhaps especially) when they are in “the wild.” Given that this deep conditioning has shaped the way they see the world, this also means they/we are likely to make mistakes on an almost continual basis (Blenkinsop, 2012). With respect to the village the teachers have, for the most part, passively sanctioned an imaginative police state with capitalist economic assumptions, patriarchal power hierarchies, and a resourcist orientation as an inevitable norm, even ignoring some more interesting and critical suggestions coming from some “marginalized” sets of students (e.g. a group of girls and younger students started to question the entire system and suggested a much more cooperative “feminist” system). This suggests that educators must engage, and at times mediate, with the students and offer means with which to question and rewild the culture into which they are being inducted by way of domestication.

It is not surprising, given the deep cultural architecture that supports a utilitarian and anthropocentric approach to pedagogy, that when the students are asked “What is the forest for?”⁶ several of them quickly responded “mountain biking” and they were then commended on a good answer. At times, the land was presented by the staff as a “multi-user resource” even though “it’s also a home to animals” as a younger student pointed out. The staff’s way of dealing with these two seemingly incompatible metaphors of place is

to decide which areas are of higher “value” and thus, have greater rights to be protected and from this create “high use” areas (low value) and protected areas (high value). It has been interesting to note now this step of hierarchizing landscapes parallels early policy responses and discussions in conservation biology that have since been debunked by environmental theorists because this solution creates islands of wild space that are conserved but lack integrity or continuity and in this educational context the students appear to learn that instead of modifying their behavior they can instead just set aside a chunk of protected space and continue to play hard on the other existing spaces.

We note unequivocally, our intention here is *not* to denigrate the vital work of committed educators struggling to maintain schoolyard gardens, or expand institutional recycling initiatives, or get their kindergarten class outside the box in order to encounter a more-than-human world. Rather, we seek only to warn against allowing a “metaphysics of mastery” (Bonnett, 2015) to continue being reproduced as an article of faith and stand in for “the real work” (Jardine, 2012; Smith, 2006) facing educators today and in days to come. This is difficult work. Accordingly, and with respect, we advocate that it is incumbent upon environmental educators to supplant master species metaphors and practices that perpetuate an image of the world as “ours” to remake according only to our desires—even in urban centers. (Incidentally, this is where rewilding urban conservation and rewilding urban education begin to build synergy). In other words—and in addition to all the more “practical” eco-tasks piled upon them—our thesis here is that environmental educators must *also* work to develop the ecocritical dispositions, historical literacies and imaginative sensibilities to teach students how to attend to/with the sociomaterial conditions of learning in ways that challenge human supremacy (for some examples see Blenkinsop & Piersol, 2013; Kopnina, 2013; Pacini-Ketchabaw & Nxumalo, 2015).

⁶ Even the question itself suggests an *a priori* positioning of forest with regard to human. How might this response head in a different direction if

the question were “How does the forest sustain you?”, or “what might you do for the forest?”, or “what has the forest taught us today?”

We also submit that a crucial aspect of any post-anthropocentric pedagogy will entail recognizing the material agencies and affordances of the environment to shape, reify or burst asunder the practices and discourses possible in any situated learning experience. As McKenzie and Bieler note, “The stories we are able to tell about the world through learned practices of critique are enabled by the everyday sociomaterial conditions that surround us” (2016, p. 6). While this can initially strike as a rather obvious point, it is essential to recognize that, to a certain extent, the sociomaterial conditions of any given place will significantly shape what is possible or even *thinkable* with-in that place. We thus share the notion that critical pedagogies of place that trace the sociomaterial provide promising ways to make post-anthropocentric sense of “nature-as-co-teacher” (Blenkinsop & Beeman, 2010). We are tempted to simply upgrade the notion of “nature-as-co-teacher” to something like sociomateriality-as-co-teacher. However, we suggest, this *potentially* neglects something vital at the heart of environmentalism that we haphazardly call wilderness.

While we join with scholars working to reconfigure the naturalization of “nature” by recognizing how relations of power and domination are inscribed in material spaces (see Taylor, 2013), we remain deeply suspicious whenever educational theory begins to overly conflate heavily human-shaped environments, such as the typical urban core, with the relative wild or lack of human control and presence, in places often described as the natural world. Surely we can recognize a spectrum of material wilderness spanning from the Wrangell-St.Elias Preserve in Alaska to downtown Manhattan; from a Douglas Fir in a stand of 400-year-old growth to a wooden desk in a suburban high-school; from the “traditional ecological knowledge” of Haida master myth teller Skaay (Bringhurst) to the “soft pollution” of corporate “writing, signs, images, and logos flooding rural, civic, public and natural spaces as well as landscapes with their advertising” and “will to

appropriate” (Serres, 2011, p. 41).

We suggest such a sophisticated notion of wilderness moves beyond the romantic vestiges of pristine often associated with the term and potentially offers a post-nature understanding of the sociomaterial affordances of place(s) and object(s). Canadian poet and philosopher Don McKay has provided an apt definition describing this move:

By “wilderness” I want to mean, not just a set of endangered spaces, but the capacity of all things to elude the mind’s appropriations. That tools retain a vestige of wilderness is especially evident when we think of their existence in time and eventual graduation from utility: breakdown. To what degree do we own our houses, hammers, dogs? Beyond that line lies wilderness. We probably experience its presence most often in the negative as dry rot in the basement, a splintered handle, or shit on the carpet. But there is also the sudden angle of perception, the phenomenal surprise which constitutes the sharpened moments of haiku and imagism. The coat hanger asks a question; the armchair is suddenly crouched: in such defamiliarizations, often arranged by art, we encounter the momentary circumvention of the mind’s categories to glimpse some thing’s autonomy—its rawness, its duende, its alien being. (1995, p. 21)

Here McKay alludes not only to a sense of material wilderness based on (the relative illusion of) human appropriation and control, but also suggests a potential learning outcome or objective for environmental education. That is, cultivating the place and conditions for the phenomenal moment of surprise when sociomaterial assemblages are defamiliarized and disclosed in their more-than-human rawness (emphasizing the relationship between such experiences and the arts). We refer to this move as *rewilding* and suggest that it replace or redefine “sustainability” as a principal objective of environmental education in the Anthropocene.

Rewilding typically refers to setting aside tracts of land for wildlife conservation (Schenck 2015), reintroducing displaced species, or diversifying urban landscapes from human-centric to more multispecies environments.⁷

⁷ See for example: Mackinnon, 2014; Monbiot, 2013.

For us, rewilding offers a way to think through educational events by attending to the sociomateriality of places, beings, objects and affordances of the learning experience as a whole in order to provoke phenomenal moments of defamiliarized encounter with-in a more-than-human world to which McKay refers. In other words, rewilding is an attempt to seize upon the historical moment of the Anthropocene and its philosophical trends to move education in the direction of ecocentric humility not anthropic dominion. As the domestication of earth, animal and human is, we suggest, part of the same appropriative project, we maintain that rewilding too must be approached as a sociomaterial practice to foster both wild biodiverse ecosystems and wild educational pedagogies.

Unlike techno-triumphalist pedagogies, which always seem predicated on a kind of amnesia of radiant happiness, a key aspect of rewilding entails developing the humility and historical consciousness to recognize loss. Here we mean loss of habitat and wild places, loss of myriad species and particular beings, but also loss of “ourselves” as beings *in* nature, *with* nature, *as* nature. Rewilding advocate J.B. MacKinnon reiterates the courage it takes to look at the history of nature from this historical moment, “It [rewilding] calls on us to remember losses, not only in the wild, but within ourselves. The past asks us how, what and why we allow ourselves to forget” (2014, p. 6). Simultaneously, and importantly, rewilding education must also help students move through loss by providing the tools, experiences and orientations to not only critique the aspects of the dominant culture responsible for ecological degradation, but to recognize and harness emergent (or traditional) ways of being that might help cultivate a post-nature world characterized by ecocentric ethical orientations.

Conclusions

Towards the end of the year at MRESP, while we were conducting field research, there was a particularly memorable learning experience that we believe is crucial to addressing anthropocentrism in education. A group of the “older students,” grade three to seven, walked to “the clearcut”—a section of the research

forest that had been logged with conventional clearcutting techniques—in order to read *The Lorax* by Dr. Seuss. To our minds, this was an ideal synthesis between place-based experience and language-arts curricular content. Imagine how much more meaningful and affectively powerful the message of *The Lorax* might be while sitting in an actual clearcut compared to a classroom. During the debrief, however, the conversation shifted in a way that was, on the one hand, surprising, and on the other all too typical. Students and teachers alike seemed unwilling to acknowledge the destructive nature of clearcut logging even as they sat within it, and instead the discussion rapidly slid into the potential benefits of clearcutting, how it “opened up the forest” and “allowed for smaller plants to grow.” This was not an isolated incidence and we have witnessed this phenomenon in several different educational settings now, from conventional school classrooms, to outdoor education experiences, and even at environmental education conferences. There seems to be an unwillingness to appropriately address the damage that our society exerts on the natural world; to sit with the loss.

We included these school examples to demonstrate how the educators arrive in any place, be it garden, managed forest, or suburban forest park with certain cultural, moral, and ontological orientations. It is against these Dutch and Canadian realities that tend to ignore the agency and activeness of the more-than-human world as a potential teacher that the educators in our studies must push back. Given that these contexts tend to relegate the natural world to the background or simple setting for learning there are few examples for educators to learn from where students might go beyond learning about or in the place and start to learn intentionally with or from it.

This anthropocentric orientation, in which we give attention to humans and their interests alone, are the ones most dominant in Western culture so it is not surprising to see them ingrained in the practices at school. Although it does speak to the power of such cultural norms that they remain so present in schools that have specifically environmental mandates.

These cultural assumptions while definitely not the entire picture of what the educators present, are important pieces to highlight for if they remain unquestioned, they collectively work to contradict messages of care for the natural world, help to rationalize our moral distance from it, and make rewilding a one directional human endeavor rather than a shared project for mutual flourishing. Awareness around the cultural assumptions that we are passing on is essential especially in the early years, where the children have not yet come to know the plant as a 'weed' and there is still the possibility for them to view a section of land as filled with intricate life rather than to see it as a 'jumbled mess'. Complexity and contradiction is part of any relationship that we must learn to navigate but as educators we can endeavor to become more conscious of how the metaphors, hidden curricula and cultural norms of our practice may be incongruent with the orientations, be they moral, relational, or ecological, we are trying to foster. Indeed, this requires a reflective practice and the willingness to modify actions and language that is antithetical to an ecological orientation and that increases distance as opposed to bridging or narrowing it.

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