LIFE OVERLOOKED: AN ENVIRONMENTAL ARTS PROJECT

By Kelly O'Brien

Supervised by Dr. Leesa Fawcett

A Major Paper Report submitted to the Faculty of Environmental Studies
in partial fulfillment of the requirements for the degree of
Master in Environmental Studies,
York University, Toronto, Ontario.

November 28, 2016

ABSTRACT

This paper discusses Life Overlooked, an environmental arts project I designed and carried out with elementary school children at the Grove Community School in Toronto. Using art as the primary mode of inquiry this short-term, workshop-based project got students to focus on endangered and overlooked animals and plants in Ontario. This essay outlines the different workshops (creative writing, batik, animation, dance, performance, photography and poetry) and explores how the students engaged with the various activities. My reflections illustrate how environmental arts education can create new and different possibilities for expanding young people's knowledge of and relationships to local environments, as well as opportunities for them to think about larger environmental issues through connections with particular plants or animals.

ACKNOWLEDGEMENTS

This project would not have been possible without the support of York University professors Leesa Fawcett, Tim Leduc, Anders Sandberg and Cate Sandilands. I'm also hugely indebted to the workshop leaders –Terence Dick, Ben Kapron, Anne Koizumi, Gabrielle Lasporte, Katrina Maurer, Dylan McMahon, Sally Morgan, Darren O'Donnell and Julie Read – whose expertise and passion made the project everything I could have hoped for. Thanks to Shannon Greene, The Grove Community School's multi-talented art/gym teacher, for jumping on board and helping with animation set-building and batik sketching. Thank you to Janice Wilson, the students' 5/6 teacher, who was enthusiastic about the project from the beginning and who gave me the freedom and class time I needed to make a collaboration like this work as smoothly as it did. Thank you to Principal Wilma Verhagen for being open and responsive to the idea. A big, heartfelt thanks to the Grove parents for letting me work with your kids and for fostering a love of art and environmental justice far and wide. Lastly, and most importantly, thank you to the students. You are wise, kind and absolutely inspiring.

TABLE OF CONTENTS

FOREWORD

> I have always felt we speak too much about human beings. This world is crowded with humans, but also with animals, birds, fish and insects.
> — Günter Grass

I tried to help my daughter Willow overcome her fear of worms by spending time together with this one in our backyard. I picked a hydrangea petal and gave it to her to give to the worm so that she'd have to get closer to it (instead of looking down from her tricycle in horror). She thought carefully about where to place the flower and then told me it would make a nice bridge for the worm to travel under. After looking back at this picture weeks later, I realized another way to think about this arrangement is to consider how animal and plant coexist here in concrete – one of the most common human-made materials on

the planet. By foregrounding the lowliest of creatures, the image imbues this animal with reverence. Like Darwin, who only had praise for worms (as cited in Phillips, 2009), it draws our attention to what we too often take for granted, ignore and belittle. In doing so, it affirms their earthly importance. That said, there is also a less optimistic reading – a picked flower, a worm being forced into a confined space, and an artificial foundation that destroys natural landscape in its wake – that illustrates human control and domination.

A child comes to grasp the significance of the outside world through small everyday encounters like this one in my backyard. As these encounters accumulate they provide the foundation for our future understanding of the world as a whole. They influence what we choose to notice and value. I entered York University's Masters of Environmental Studies program because I wanted to

develop an educational art project for young people that encouraged human, plant and animal encounters, with an emphasis on curiosity and care. In particular I was concerned with bridging the gap between an education that fosters an appreciation of nature with one that addresses the impending threats to our environment as a whole. One of my key questions was how can we give children something to hope for when all seems hopeless.

On a personal, somewhat lofty level the planning and executing of Life Overlooked was an opportunity for me to spread some hope. In more practical terms the project helped me meet some of the objectives I laid out in my initial Plan of Study. For instance, I gained a general overview of the field of environmental education and learned the value of place-based environmental education. I took an Artist-Educator course through the Royal Conservatory of Music that helped in terms of learning practical tools and skills for teaching an arts-based project such as Life Overlooked to young people. I also developed a broader awareness of the work of environmental thinkers (Neil Evernden, Maxine Greene, Michael Marder, and Cate Sandilands, among others), and writers and artists (such as John Terpstra, Laurie Ricou, Helen MacDonald, Ed Burtnysky, and Andy Goldsworthy) who pushed me to think deeply about how to represent and engage with the natural world as an artist/educator. These disparate theoretical and artistic influences converge around one central concept that guides this project, one simply distilled by British nature poet Alice Oswald in a recent CBC radio interview, namely the importance of seeing “the human as continuous with the natural world” (2016). She wants her poetry to show the ways in which “human and natural worlds pass between each other and through each other; how they exist on the same level” (ibid.). I take this idea to heart and make it the starting point for the following environmental arts education project.

ENVIRONMENTAL ARTS EDUCATION – AN INTRODUCTION

> Environmental education is not simply about 'saving the whale' or indeed 'saving the world'. It is equally about the development of an appreciation of the wonders and beauty of the world, and a sense of wanting to save it – in short, the development of ecological thinking or an environmental ethic.
> — Joy Palmer

(batik by Ruby Brubaker-Plitt)

In the spring of 2012, I took a course on digital activism as part of my MFA in Film at York University. The course focused on issues of environmental sustainability and the Alberta tar sands. For my final project I made a short film with my daughter's Grade 2 class at the Grove Community School, a TDSB alternative elementary school with an environmental justice focus. I brought in a speaker from Greenpeace to talk to the kids about the tar sands, filmed the session, and then interviewed each of the kids afterwards. The following week their teacher worked with them to come up with an action to address the problem. Some chose to make posters; some made a presentation to the other

kids at the school. I turned this experience into a 12-minute film that I uploaded to the internet for the students and their parents to see.[1] Given the school's mandate, I thought this would be an appropriate project for the class. As a filmmaker, I liked the representational strategy of giving voice to kids' opinions instead of the grown-up, expert ones privileged in most conventional documentaries. Moreover, I thought that if children could talk intelligently about this complicated issue and express their concerns, then maybe adults would listen. To my surprise, however, the project stirred up controversy. After the film screened, one parent (a long-time environmental activist) told me that the tar sands wasn't an age-appropriate subject for young kids. She said her daughter came home in tears, upset about the animals that had lost their homes. Another parent, a teacher, said that her child didn't have to learn about the negative impact of the tar sands in order to be environmentally engaged. Another parent, also a teacher, told me that the experience overwhelmed her child. She said, "I believe a lot of the stuff we expose our kids to in the hopes of inspiring them to be socially engaged can actually be emotionally disturbing; it can also be really disempowering." My initial reaction was defensive and dismissive; they're just being overly protective parents, I thought. But deep down I knew they were intelligent, thoughtful people and I should learn from them.

A few months after I made that film, the Grove's Grade 3 teacher organized a teach-in with her class against the Enbridge Northern Gateway pipeline in front of the Parkdale Public Library in Toronto. Students brought a five-metre paper maché pipeline they had made, with dioramas of endangered ecosystems including the animals, forests, lakes and rivers. The event attracted media attention: the *Toronto Sun* and *SunTV* in particular mocked and condemned the protest. Articles posted online included remarks such as: "At eight, they shouldn't have to know any of that. Or have an opinion on anything" (*Toronto Sun*, 7 May, 2012) and "In the real world, of course, eight-year-olds don't yet have the capacity to think critically about complex issues such as balancing environmental concerns with jobs and economic growth. They think

[1] You can watch the film at https://vimeo.com/25234763. The password is tar sands.

what their parents and teachers tell them to think." (ibid., May 8, 2012). The protest also became a topic of debate in the provincial legislature with Tory MPP Rob Milligan questioning Ontario's Education Minister Laurel Broten:

> A teacher's role is not to brainwash children to further political causes under the guise of an alternative education model… Minister, what are you doing to ensure that children as young as eight are not exposed to the abusive authority demonstrated by this group of teachers at the Grove?" (*Toronto Sun*, 9 May, 2012)

Soon after, the November 2012 issue of *Maclean's* magazine featured a cover story entitled, "Stop Brainwashing our Kids: How educators are hijacking the classroom to push their own political agenda." What and when – even if – kids should learn about environmental issues is a highly contested site of public debate. What I found interesting about both the tar sands film and pipeline teach-in was how people from opposite sides of the political spectrum shared similar responses. I felt like I'd stumbled upon something worth investigating further. This experience informed much of my research during the MES program, and was the impetus behind the arts-based environmental project that I developed while I was there.

My paper outlines the academic and creative journey I went on as I explored the relationship between environmentalism and pedagogy in more depth and reevaluated my role and my method as a filmmaker in an elementary classroom setting. I wanted to explore the possibility of developing an arts-based approach to environmental education where elementary school-aged kids were able to tackle serious issues without being overwhelmed by them. I wanted to encourage kids to love and save the earth at the same time, and foster wonder, connection, and critical analysis. Aldo Leopold, in his 1949 environmental classic *A Sand County Almanac*, writes, "We can only be ethical in relation to something we can see, feel, understand, love, or otherwise have faith in" (2001, p. 214). So many of the environmental stories in mainstream media focus on catastrophe and despair as evidenced here in just a few of the daily news headlines: "Humans causing catastrophic ecosystem shifts, study finds (CBC.ca, 30 June, 2015), "How humans are driving the sixth mass extinction" (*The Guardian*, 20

Oct., 2015), “Global warming making oceans 'sick', scientists warn” (*The Telegraph*, 5 Sept., 2016). Despair is the dominant emotion of our times and not surprisingly. How else are you supposed to react to the reality that half the world’s nine million species might be extinct by the end of this century? But despair often frightens people into submission and paralyzes them into inaction. I wondered what other emotions could be felt and mobilized during this time of ecological crisis. I wanted to make room for an arts pedagogy that nurtured and expressed a love of nature. It sounded wide-eyed and outdated, and I had my doubts, but it was worth a try.

As part of my preliminary research I studied the intersecting fields of art and environmental education – also referred to as “arts-based environmental education” (or AEE). It is based on the belief that children can develop a new-found curiosity or awareness of the environment through art, and that making art (whether it’s dance, poetry, theatre, music, visual art or film) can help children make sense of the ecological crisis we’re currently facing in potentially innovative and transformative ways.

The phrase “art-based environmental education” was coined by Finnish art educator Meri-Helga Mantere in the early 1990s. Scholars now refer to it as “arts-based,” pluralizing it to include art in all its forms. For Mantere, AEE “supports fresh perception, the nearby, personal enjoyment and pleasure of perceiving the world from the heart” (1998, p. 2). It aims at “an openness to sensitivity, new and personal ways to articulate and share one's environmental experiences, which might be beautiful but also disgusting, peaceful but also threatening” (ibid., p. 2). I was interested in how Mantere defined this approach to education as both potentially beautiful and disgusting. She states the perhaps obvious, but not always popular, view that learning can be messy, and challenging and that it can evoke complex, contradictory feelings.

Dutch artist and scholar Jan van Boeckel, who wrote a comprehensive PhD dissertation on the subject, *At the Heart of Art and Earth: An Exploration in Arts-based Environmental Education*, argues that AEE can counter some of the psychic alienation or cognitive dissonance that children are experiencing in the

face of our growing global environmental crisis (2013). He's concerned with the effects of our societal addiction to technology and how an increasingly wired generation of young people is becoming increasingly disconnected from the natural world (he cites a recent statistic that children in the United States spend ninety percent of their time indoors (2013, p. 29))[2]. American environmentalist Bill McKibben sums up the reality of this 'nature gap' in the following remark, "Our children are part of a truly vast experiment — the first generation to be raised without meaningful contact with the natural world" (2008). Much has been written about how this "nature deficit order" impacts the overall health and education of children (Carson, 1965; Louv, 2005; Kellert, 2005; Suzuki, 2012), but the consequences of this seismic shift for the planet at large are harder to prove. Although anecdotal, I share British author George Monbiot's view that, "Most of those I know who fight for nature are people who spent their childhoods immersed in it" (2012). If what Monbiot, McKibben and so many others are saying is true, it is incumbent upon us as artist/educators to develop new learning strategies to reverse this disturbing trend. But which ones was I to use? And how would they be taught?

David Sobel, author of *Place-Based Education: Connecting Classrooms and Communities*, takes the critical position that our well-intentioned "environmentally correct curriculum" focused on saving the earth isn't working: it promotes fear and alienates children from the natural world. He sums up his solution to ecological literacy by writing, "No rainforest curriculum, no environmental action, just opportunities to be in the natural world" (1998). An article by Professor of Art Pedagogy Pirkko Pohjakallio, "Mapping Environmental Education Approaches in Finnish Art Education," puts Sobel's position into historical context. She discusses how politically-motivated environmental education backfired in Finland when it was first introduced in the 1970s. It foregrounded politics rather than creativity; it concentrated on problems. During this time, Pohjakallio writes, the images created in art classes (posters, cartoons,

[2] A 2012 David Suzuki Foundation report found 70 per cent of Canadian children spend less than an hour a day outside.

collages, installations, photographs, films) represented “dying nature, spoilt built environments, factories that polluted, and chaotic traffic jams” (2007, p. 4). The paradigm was criticized for imparting a sense of despair and was eventually replaced by Meri-Helga Mantere’s approach – one that encouraged spending time outdoors, and discovering points of connection, as opposed to conflict, between human and non-human worlds.

At first I was skeptical of this less politically-engaged approach. It seemed short-sighted and naïve, conjuring up bucolic, sentimental visions of nature. I’ve since become more sympathetic. Over the course of the FES program, I had time to reflect on the beginnings of my environmental awareness, my love of plants and animals, and I ended up at my elementary school playground just outside of Vancouver. It jutted up against a small forest with a view of mountains. I started to remember the names of the plants we played amongst – salal, huckleberry, hemlock, cedar – and suddenly vivid memories of the place – the faces of the kids, the games we made up, the animals we encountered – flooded back. It was as if the names of the plants held a secret code to my past that I’d never had access to before. I now understood what Canadian naturalist and author John Livingston meant when he wrote, “For some of us, the experience of non-human Nature is the most vivid recollection of young childhood” (1994). The bustle of downtown Toronto is a far cry from the woods of West Vancouver, but even in a densely populated urban centre, connections to nature are all around us if we open our eyes and learn how to make them.

At the same time, nature as an idea has a complex and contested history. Some environmental philosophers such as Neil Evernden, Donna Haraway, Bruno Latour and Timothy Morton argue that there is no such thing as nature; rather, it’s an assortment of concepts we’ve manufactured over centuries. In his 2007 book, *Ecology Without Nature*, Morton takes the position that we must let go of the whole idea in order to dissolve the divisions that have built up since the dawn of Western anthropocentric thought. Others like British naturalist Robert Macfarlane look for ways to reimagine nature. In particular he’s interested in expanding the language of nature. In his latest book, *Landmarks*, Macfarlane

proposes “a glossary of enchantment for the whole earth, which would allow nature to talk back and would help us listen” (2015, V1). Others such as wildlife biologist J. Michael Scott see nature as it is most commonly understood: the realm of plants, animals, rocks, oceans – everything separate from, beyond or not us. However, Scott, warns that at this point in time, “Nature is unable to stand on its own” (as cited in Mooallem, 2013, p. 3). Still others understand nature as a vast assemblage of living (biotic) and non-human living things (abiotic), injecting it with more complexity. For instance, landscape architect Elizabeth Meyer challenges the notion that nature lives in the wilderness far from the city. In the online design research journal *Lunch*, she writes, “Nature is not out there, but in here, interwoven into the human urban condition” (2011). Environmental theorist Cate Sandilands complicates the notion of nature as some idyllic, pastoral place, arguing that “natures are not [only] saved wildernesses; they are wrecks, barrens, cutovers… unlikely refuges and impossible gardens” (2010, p. 343). For Sandilands, it’s important to pluralize nature and look for it in many and less predictable places. American writer Rebecca Solnit in her book *Savage Dreams: Journey into the Landscape Wars of the American West* writes about the work of American landscape photographer Richard Misrach and discusses how “the further he went into what was supposed to be wilderness, the more he found politics” (1999, p. 39). Solnit challenges the myth of a pure pristine nature, turning her attention to the ways in which landscapes are “invaded by politics,” and how they become “victims of history” (ibid., p. 47). This diverse group of thinkers give a sense of how ephemeral, fraught, and fictive the idea of nature is. I’m treading on thin theoretical terrain here but I’m going to hold on to the idea of nature, however loosely, while acknowledging its disparate meanings.

Contextualizing place is integral to AEE practice and the field of place-based education has much to offer here (Sobel, 2004; Smith, 2002; Greenwood (formerly Gruenewald), 2014). For Professor Gregory A. Smith, a pioneer in the field, place-based education is a practice that uses local environments as the context for teaching and learning (2002). Its purpose is to connect young people

to the issues facing their own communities and, in the process encourage them to consider and improve the quality of life in their own neighbourhoods (ibid.). Both Smith and his colleague, David Greenwood, have expressed concern that the approach's emphasis on the local can obscure larger global issues. For Smith, this bigger picture is often lost, for example, in the place-based work around school gardens. In an online conversation with Greenwood in *Clearing*, he writes,

> There is nothing wrong with the creation of school gardens — in fact, helping young people learn how to grow their own food and develop more of an affinity with agricultural practices seems essential…. But school gardens, unless they are coupled with investigations of industrial agricultural systems and the inequitable ways that food is distributed to the majority of people on the planet, do little to help students grapple with the deeper forms of cultural change. (2010)

I took Smith and Greenwood's critique seriously. I wanted students to explore their local environment but I also wanted to address larger problems such as habitat loss, species extinction, pollution, climate change, etc. It felt necessary to acknowledge our collective responsibility in getting us into and out of our increasingly bleak environmental future. The criticism over the tar sands project still weighed on me (I was going to be working with the same class, with the same parents), but the students were in Grade 2 then, and now they were in Grade 5. I didn't want to scare them again, but I didn't want to infantilize them either**.**

The scholarly and public debate over what environmental problems are appropriate for kids to learn and at what age can be traced back to conflicting ideas about childhood. For example, Professor Iris Duhn, in her article "Making 'place' for Ecological Sustainability in Early Childhood Education," argues that the longstanding association with childhood as a time of innocence makes it difficult for educators to address environmental problems. As she writes, "Learning to care for all life on earth, when topics like climate change emphasize the urgency of engagement at all levels, inevitably introduces 'reality' into the protected space of childhood" (2011, p. 21). The question of "age appropriate education" is tricky.

Rather than adhere to any hard and fast rule, I think an environmental curriculum requires constant negotiation, strengthened by learning that straddles reality and fantasy, fun and fear, beauty and pain.

In her book, *Environmental Education in the 21st Century: Theory, Practice, Progress and Promise*, Joy Palmer writes that environmental education has the task of addressing an extremely bewildering array of content, one that incorporates "aesthetic, spiritual, social, political and economic dimensions, alongside (but not separate from) the purely scientific"(1998, p. 267). For OISE lecturer and art educator Hilary Inwood, AEE, or what she refers to as eco-art education, is an invaluable complement to science-based education. It enriches "environmental education's traditional roots (found in the cognitive, positivist approach of science education) with more creative, affective and sensory approaches of art education" (2005, p. 44). Rachel York, in her PhD thesis, *Reconnecting with Nature: Transformative Environmental Education Through the Arts*, echoes this view, citing a growing body of empirical evidence to support the idea that "an emotional response to nature (e.g. fear, love, wonder, curiosity, joy, compassion) that precedes an intellectual response provides the foundation for an emotional or 'affective' connection to nature and is the "key point to learning and teaching" (2014, p. 103).[3]

[3] Although feeling, emotion and affect are often used interchangeably, they mean different things. Very crudely, feelings are the way you experience emotion, they come afterwards. Emotions are considered universal but feelings are specific to an individual, and vary according to experience. So, for example, two people might experience the same emotion but associate different feelings with it. Affect precedes both emotion and feeling. In an online article in *Media Culture Journal*, Professor Eric Shouse (with help from cultural theorists Brian Massumi, Gilles Deleuze and Felix Guattari) defines affect as a "non-conscious experience of intensity that cannot be fully realized in language," that is "prior to or outside of consciousness" (2005). For Shouse, affect is important in the field of media and cultural studies because in many cases "the message consciously received may be of less import to the receiver of that message than his or her non-conscious affective resonance with the source of the message" (ibid). Music provides one of the best examples of how affect works, where "the intensity of the impingement of sensations on the body can "mean" more to people than meaning of the music itself" (ibid). Thinking about the role of affect in environmental arts education is interesting because it opens up other possibilities for learning that aren't directly tied to delivering curriculum content. It suggests, in the same way that music can be used in an educational context to produce a variety of responses, that the experience of being in the

American educational philosopher Maxine Greene never wrote about AEE per se but her work on the subject of “aesthetic education” brings important insights to it. Greene insists that teachers “place imagination at the core of understanding” and, for her, the arts are central to this process. She believed the arts could encourage “wide–awakeness” in students or an “awareness of what it is to be in the world” (1995, p. 35) and that personal, reflective encounters with art could open up opportunities to imagine the world “as if it might be otherwise” (ibid., p. 16). Greene’s work focused on the transformative power of actively engaging with art (poems, paintings, novels, dance, opera), not the act of making it, but I would argue that both practices hold tremendous imaginative potential. Jan van Boeckel borrows the phrase “radical amazement” from theologian Abraham Joshua Heschel to describe what art can offer (2009). If art can help us see the world again with new eyes, if art can, as van Boeckel suggests, provoke and catch us off-guard, or rather offer “unique, often non-cognitive ways of interpreting and signifying experiences in the world,” then it has enormous, transformative pedagogical potential (2009, p. 2). Quite simply, if art practice (in its many forms) can encourage kids to discover some kind of meaningful connection to natural environments, then maybe it could inspire them to care more.

Ruben Gaztambide-Fernandez, OISE Professor in the Department of Curriculum, Teaching and Learning, takes a more critical view of arts education and his reflections are useful in thinking about some of the conceptual gaps and limitations of AEE. In his provocatively titled article, "Why the Arts Don't Do Anything," he argues that art education is dominated by two approaches: an instrumentalist approach that focuses on academic outcomes (arts can improve test scores and overall academic achievement) and an intrinsic approach that focuses on transformative effects (arts produce “particular ways of knowing and being in the world”) (2013, p. 212). Gaztambide-Fernandez maintains that the

---

natural world can as well.

literature's focus on advocacy and demonstrating what he calls "the rhetoric of effects" is misguided; art isn't an elixir, he argues, you can't simply inject it into educational situations and assume it will transform, liberate, or inspire (p. 214). He writes that just because it's art, doesn't mean it's good. Instead, engaging in cultural practices of various kinds can result in experiences that are usually not simply positive or negative, diminishing or exalting, but complex, contextual and open to interpretation (2013, p. 225-226). A former music teacher, he isn't suggesting we abandon arts education or push it further to the margins of mainstream education, but he wants to rethink the terms of engagement in which it is practiced. Ultimately, Gaztambide-Fernandez's approach shares more in common with a community-based arts model, one that connects creativity to people's lived experiences, one that's participatory and committed to social justice and one that democratizes art and emphasizes process and expands what constitutes art to include activities such as mural-making, popular theatre, activist video-making, and community dance. Heeding Gaztambide-Fernandez's advice, perhaps it's more useful to see art education's value more provisionally, on a project-to-project basis.

Drawing from the work of Mantere, van Boeckel, David Sobel, Maxine Greene, Gaztambide-Fernandez and others, my major project was an interdisciplinary experiment informed by several pedagogical approaches, but one that uses art as the primary mode of inquiry. It was also driven by hope. Anthropologist Eben Kirksey resists apocalyptic thinking, instead focusing on the notion of "biocultural hope" (2014). In "The Multispecies Salon," an art exhibit Kirksey organized that traveled from San Francisco to New Orleans and then to New York City (and later appeared as a book by the same name), hope is grounded in actual organisms (goats, fish and hermit crabs) living in the wake of various political, military, and environmental disasters (ibid.). In an online interview in *Synapse* about the exhibit, he refers to them as new emergent ecologies that push "the bounds of realism and realistic possibilities" (2015). I didn't learn about his work until long after my Life Overlooked project was

finished, but it resonated with me, particularly his less drastic approach and his search for hope in specific organisms and local ecologies.

THE PROJECT

> To walk out of the field guide
> and listen. To wait
> for the world to approach with its dapple and hands….
> To open the grammar of being seen
> And let the creatures name you.
> —Sue Wheeler, *Understory*

Life Overlooked was a media arts project designed specifically for a Grade 5/6 class at the Grove Community School. [4] It was inspired by an MES project I participated in called, "Humanities for the Environment: Life Overlooked." Led by Professor Cate Sandilands, each student was asked to create a digital portfolio based on an overlooked species found in the Greater Toronto Area and upload it to the project's website.[5] This ongoing Mellon Foundation-funded project (a collaboration between York University, the University of Oregon and Arizona State University) features an online "data bank and place-based map" of plants and non-human animals across North America and Mexico. It focuses on the scientific and cultural knowledge that humans have in relation to non-humans in order to highlight "modes of non-human intelligence and resilience" (2015). The project gives special attention to the lesser-known, uncharismatic species that often go unnoticed. The project's website is a forum that brings together the largely untapped, under-reported cultural knowledge that "everyday people" possess about the non-human world (ibid.).

---

[4] Opened in 2009, in The Grove Community School is Toronto's first public elementary school focused on environmental education, community activism and social justice. My daughter had attended the school since Grade 1 and at the time of the project was in the Grade 5.[4] Over the years I'd developed a long-standing connection with many of the students, parents, and teachers, which was why I was particularly interested in working there.

[5] http://hfe.wfu.edu/observatories/north-american-observatory/west-cluster/life-overlooked/

Sandilands based the Life Overlooked project we did at MES on former English Professor Laurie Ricou's interdisciplinary work in the areas of Canadian Literature and Environmental Studies. For over a decade he taught a seminar called Habitat Studies at the University of British Columbia where he asked students to study a single species of flora or fauna. He called the course an experiment in "ecocriticism" intended to push "literary research into anthropology and ethnography, folk music, theatre, economic, geographical and political history, film and visual arts" (2014, p. 163). It was an interdisciplinary adventure that encouraged a new academic way of attending to the world – one that listened to birds and trees, water and soil. In his syllabus he wrote, "…you must be ready to walk out and listen – somewhere the other is speaking" (ibid.). Ricou embarks on this journey in his book on the ubiquitous but ignored Salal plant of the Pacific Northwest. In the introduction, he turns to ecological ethics philosopher Kathleen Dean Moore to illuminate the importance of up-close encounters with the natural world: "When people begin to look…they begin to see and when they begin to see, they begin to care" (2007, p. 7). I could feel this happening to me as I studied the milkweed plant for my contribution to the project. That experience made me excited about the possibility of transforming Life Overlooked into an AEE project for children. I started thinking about the new and different kinds of learning it could offer them, but also how their everyday insights could inform and enrich the project.

I adapted Life Overlooked to make it relevant and fun for elementary school students, but the overall structure and goals that defined the graduate assignment remained the same: to research one local overlooked or endangered plant or animal species, to bring together local and global environmental concerns through both creative and scientific learning, and to challenge and explore the ways we privilege human over non-human life and to consider the consequences of that. For the MES Life Overlooked project, students were asked to collect and integrate a wide range of discourses, from botany to pop culture, on a species in order to illustrate how their particular plant or animal is understood in the popular, cultural, and scientific imagination. For my film project

on milkweed, I included 19th Century nature writing venerating its beauty, a 1940s Dow Chemical weed campaign aimed at its extermination, an interview with a scientist whose recent research on the rapid decline of the monarch butterfly population is linked to milkweed habitat loss, excerpts from theoretical texts (Gilles Deleuze & Felix Guattari, Elaine Scarry) as well as poetic sequences of my kids blowing milkweed floss in High Park.[6] At the elementary school level, students would create projects that included stories about their chosen species, but the learning would be expressed through a range of art-based activities (fiction, poetry, photography, visual art, dance, and theatre).

Influenced by David Greenwood and Gregory Smith's writing on place-based education I wanted the project to begin outside in a nearby park (Smith, 2002; Greenwood, 2003). Keeping the place of learning close to home was important because I wanted to concentrate on local species. York University Professor Leesa Fawcett in her article, "Bioregional Teaching: How to Climb, Eat, Fall and Learn from Porcupines," argues that in science and environmental education, and in our culture generally, "we do not pay adequate attention to increasing people's awareness and knowledge of local, common animals" (2005, p. 271). Fawcett suggests that if children had opportunities "to experience animals in their bioregion, in sensory and intentional ways, then their curiosity, fears and passions could emerge and significantly shape science curricula" (ibid). She believes that "the results would be much more rewarding for the children,

---

[6] You can find it at https://vimeo.com/174983472. The password is milkweed. In addition to the film about milkweed, I also made an audio walk about the trees surrounding the HNES Native Species Garden at York University in Toronto. Like the milkweed film, the audio walk incorporated many of the central themes of Life Overlooked. You can listen to it here: https://www.dropbox.com/scl/fi/tpg6x98d31gjj04?oref=e&r=AAN12O56IWCNeaefZ_6ChsLY2Rwk2EqWMWDflsD9q3pDZSx0eXZh9GcHl8rQ7MC4g9z8Cna3YdPILQeVI5ffteU8eo4U-aYZeH3iYtxaYBYNwg_GNN_nIQbFMJYiW09fURMwledYLxd-FLxOK2M782nVRBJ2S0L1o-TgaqmN3PeTA&sm=1. The walk focused on common, local tree species and highlighted diverse discourses (historical, political, literary, academic, and horticultural) on a few varieties of trees on the university campus – Red Bud, Emerald Ash, Norway Maple, Oak, Ginkgo Biloba, White Pine, and Grey Birch. It isolated and brought to the fore aspects of the daily urban landscape that often fade into the background and it tried to exemplify a relationship to the natural world that listens, looks and feels.

and ultimately beneficial for the conservation of multi-species communities" (ibid). While only a few of the plants and animals on my final Life Overlooked are common[7] (the majority were endangered), I tried as much as possible to emphasize a bioregional focus.

In an online interview with Gaztambide-Fernandez, he argues that "education is one of the most important sites in which society both reproduces itself and changes itself" (2012).[8] The Grove, by its very nature, was already engaged in pedagogies for social change. I saw the Life Overlooked project as an extension of that, as another opportunity to put the school's educational philosophy into action. In many ways the project built on concepts that were part of the Grade 5/6 TDSB curriculum, including biodiversity and environmental stewardship, but it delivered them in a new form with a singular focus. My objective was simple, perhaps impossible, and not easily quantifiable: through research on and art about one species, I hoped the students would connect with the non-human environment in ways they might not have before. I wanted them to consider the beauty of what's around us, as well as absorb the reality of what's being lost. There were no guarantees of course, especially within the time constraints of such a short-term project, but I could try to create conditions where these connections could happen. I had no quantitative, objective criteria for evaluating the success of the project, and after reading Gaztambide-Fernandez I wondered whether it was even possible or necessary to gauge outcomes. There was no formal data collection and no tests. Qualitative, subjective factors such as observing the level of engagement students demonstrated from week to week, the level of creativity and thoughtfulness reflected in their projects, as well as their responses to a short questionnaire would be the main method of assessing

[7] The Canada goose, skunk and worm are probably the only ones that qualify.

[8] This perspective of education has a long history, going back perhaps most notably to Paulo Freire's *Pegadogy of the Oppressed*. Richard Shaull, who wrote the foreword to the book in 1970 writes, "Education either functions as an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity or it becomes the practice of freedom, the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world." (p. 34)

the extent to which Life Overlooked helped encourage discovery and interest in local flora and fauna.

THE PROCESS

> Do you know that hope sometimes consists only of a question without an answer? —Clarice Lispector, *The Apple in the Dark*

The class and I met one or two afternoons every week for two months.[9] We began in nearby High Park (Toronto's largest park, spanning over 160 hectares) where the class spent a day with guides from the High Park Nature Centre (a non-profit organization promoting environmental awareness) learning about the different habitats found there. At the end of that first day I handed out a kid-friendly list of 50 of the more than 200 species at risk in Ontario. By kid-friendly, I mean I chose more traditional charismatic species, ones that were endangered and would grab the attention of the students.[10] They got back to me in a few days with their top five picks. I wanted them to work independently and, to make the project as diverse as possible, I wanted each of the 26 students to work on one species. There were some negotiations, but overall the kids seemed happy with the animal or plant they were assigned.

Initially I was only going to include "at risk" species on the list because I thought the concept of being "overlooked" species might be too difficult for young kids, but I changed my plan after their teacher assured me that the class would have no problem understanding. I told the students that instead of choosing a threatened species, they could also pick an overlooked plant or animal – a species so common we humans ignore it; one so ubiquitous, we belittle and

---

[9] There were 26 students in the class: 11 in Grade 6 (8 girls, 4 boys) and 14 in Grade 5 (9 girls, 5 boys).

[10] To simplify the process I came up with the list of animals and plants. If I'd had more time I would've asked the students to help me devise the list. In retrospect, after reading Leesa Fawcett's "Bioregional Teaching: How to Climb, Eat, Fall and Learn from Porcupines," I would have focused more on common species in the GTA. The emphasis on so-called charismatic, popular or flagship species – those at risk animals and plants which become ambassadors and rallying points for environmental causes – now seems at odds with the intention of Life Overlooked, which is more about paying attention to the animals and plants we live with, but don't necessarily notice, day in and day out.

mistreat it. The strength of Life Overlooked for AEE is that it focuses the student's attention on a single species. From poststructuralists to environmental arts educators, this zeroing in on the specific is crucial. Jacques Derrida, in his article, "The Animal That Therefore I Am," argues that the "homogenizing concept and category of the 'animal' offers violence to the sheer diversity of animal life" (Wortham, 2010). Professor Jan-Erik Sørenstuen, in his AEE work with children in Norway, emphasizes how these solo encounters increase points of connection. For example, in thinking about studying birds, he writes,

> It is important to concentrate on one type of bird species and focus on one single bird. This makes perception and identification possible. It is not to the same extent possible to see a flock of birds as to see one single bird. We can perceive and study one single bird as regards to shape, colour, movement on land and in air, way of life. This knowledge becomes intense and vivid and can be transferred to all other bird species. If the focus is on one bird it also becomes easier for children to identify with this single bird. In this way, the bird can inspire impulses [that children can act] out through drama, movement, dance, sound, words and images. (2009, p. 24)

Ecological theorist Timothy Morton developed the concept of "hyperobjects" to describe contemporary environmental problems (e.g. global warming, petrochemicals, radionuclides…) that are ubiquitous and so vast in meaning that we humans have trouble comprehending what they actually are. Life Overlooked has the advantage of concentrating more on the concrete, less on the abstract. Philosopher Michael Marder, author of *Plant-Thinking: A Philosophy of Vegetal Life*, echoes the strength of this approach. In this excerpt from a radio interview on *New Books Network* he makes the case for plants, but the same could be said for animals.

> The persistent and deepening environmental crises is an ever-present reality for us and I think there is a kind of ethical obligation for philosophers to respond to it thinkingly. But for me, both this crisis and the very term environment are too big and too unwieldy, too abstract somehow, and so, when we talk about the environment we already create a kind of totality and abstraction which we are quite distanced from. Plants are much more concrete than that. They can, I think, act as concrete entry points into the environment and what it means to be in the environment. (2013)

Initially I wanted to stay as local as possible and stick with a list of plants and animals within the GTA, but I expanded outwards to include all of Ontario because I didn't want to exclude some animals that I thought might excite the kids such as the eastern massasauga rattlesnake, the bald eagle, and the peregrine falcon. The final list included these at risk species: bald eagle, barn owl, chimney swift, eastern cougar, eastern wolf, eastern mole, eastern whippoorwill, Fowler's toad, gray fox, little brown bat, monarch butterfly, peregrine falcon, red-headed woodpecker, rusty-patched bumble bee, eastern massasauga rattlesnake, Blanding's turtle, and cucumber magnolia. The overlooked species included Canada goose, coyote, skunk, mink, worm, milkweed and wild lupin. There was one extinct species (eastern elk) and one extirpated (the Karner blue butterfly).[11] One student asked if she could choose a species not the list – the American Kestrel, the most common falcon in North America.

Keeping in mind Greene's motto that the arts encourage "wide–awakeness" in students, I packed in as much art as possible. I co-facilitated arts-based workshops in creative writing, stop motion animation, dance/movement, art/batik and theatre/performance with guest artists who specialized in these areas. I chose art forms based more on my familiarity and respect for the work of the guest artists and their experience and interest in working with kids, than on my preference for any particular art form. All art forms can engage children, and while some, especially new media arts, are more appealing to this digital generation, so much of art education's potential comes from the teacher's approach and passion, not from anything intrinsic to the art form itself. The kids interviewed their animals and plants, they made short films starring them, they sketched and batiked them, they moved around and spoke as if they were them and they embodied them in a mock trial against humanity. With the exception of the court case – the final workshop where the kids put humanity on trial for

[11] It lives somewhere in the world (currently Wisconsin, and parts of Indiana, Michigan, Minnesota, New Hampshire, New York, and Ohio) and at one time lived in the wild in Ontario, but is no longer found here.

destroying the ecosystem – we spent more time trying to understand and connect with the individual lives of our plants and animals than discussing what humans have done to endanger them.

All these activities (although at times chaotic and fleeting) were concerned with the following conundrum: how can we step outside of, or see beyond, our human selves? Jan Oakley et al., in their article, “Animal Encounters in Environmental Education Research: Responding to the “Question of the Animal,” ask this perhaps unanswerable, but essential question for the field of AEE: “How can we move beyond the human in environmental education research?” (2010, p 87). In my case the question is how can environmental art education get students to think beyond the human/nature dualism? How do we explore the intimate and particular ways humans and non-human life are implicated in each other’s daily lives? How do we give non-human life equal attention and significance, and turn the human/non-human hierarchy on its head? Environmental philosopher Neil Evernden in his book *The Social Creation of Nature*, suggests that in order to encounter other beings “as living subjects of significance” we need to loosen “the conceptual bindings of nature so that subjectivity can flow back in, like water to a scorched garden” (1992, p. 108). How could this project bring that striking metaphor to life?

HIGH PARK

> When I talk about immersion, I'm talking about where people live, and, everybody lives someplace, but very few people get that involved in the place that they live. –Lucy Lippard

It all began on a rainy day in April, 2016 in High Park. With the help of guides from the park's Nature Centre, the class learned about the species and habitats co-existing in the park (black oak savannah, woodlands and wetlands). The kids went hiking, planted milkweed seeds, created skits (based on natural vs. human-made disturbances) and launched seed-balls (mud mixed with snakeroot, bottlebrush grass, Indian grass and asters) into the oak savanna. In the afternoon, they went on an orienteering expedition using compasses and maps (at each of the ten stops they were asked to complete activities based on their observations of different ecosystems). At the end of the workshop when the guides asked each student about the best part of the day, most of them said

things as simple as “being outside,” “running outdoors” or “being in a forest.” These are kids who attend an alternative school focused on environmental education. I assumed that, at least during school hours, they had more opportunities to get outside than a lot of kids in the city.

We all want to leave behind a better world for our children, but the absolute magnitude of that task fully sunk in as their teacher and I shepherded the students from the park onto the streetcar back to school. How are we going to get kids to care about the environment if they don’t spend any time in it? Various studies report that children in the US are spending half as much time outdoors as they did 20 years ago (Juster et al, 2004; Burdette & Whitaker, 2005; Kuo & Sullivan, 2001). After Emma and I got home that day, my neighbour, writer and activist Naomi Klein, called to ask if I could come over to film her phone conversation with 21 year old climate activist Zoe Buckley Lennox who along with five other Greenpeace activists had just scaled an oil rig en route to the Arctic. Lennox explained their intent: “We plan on being up here until we can shine a massive spotlight and Shell gets our message that millions of people don’t want them to extract this oil and risk these beautiful places anymore… This is a fight. This is people versus Shell.” The courage and commitment of a young person like Lennox is astonishing. Emma tagged along for the interview, but had a hard time processing it. It made me reflect on the relationship between a project like Life Overlooked, environmental activism and what kinds of learning inspire young people to take action. There are studies that link participating in “wild nature activities” as a child to caring about the environment later on (Wells & Lekies, 2006), but there’s no direct causal connection. I’m sure, much to many of the parents’ relief, it was unlikely that getting their kids outside to learn about wild lupins, little brown bats and Karner blue butterflies (last seen in High Park in 1926) would lead to anything as dramatic as scaling oil rigs in the Pacific Ocean, but I hoped it would incite some new-found curiosity for the natural world.

If time permitted I would have held more workshops in High Park. American biologist Edward O. Wilson popularized the term *biophilia*, defining it as the innate need humans have to affiliate with other living things (1984). Education

scholar Stephen R. Kellert's research explores how this affiliation affects one's quality of life. He argues, for instance, that direct connection with the natural world "is critical to children's health, productivity, physical and mental well being" (2009). The experience is so vital that "nothing less than the future of our species is at stake in maintaining and, when compromised, restoring this relationship" (ibid.). Kellert's work, along with many others studying children and nature (Kaplan, 1977; Louv, 2005; Taylor and Kuo, 2005; Wells and Lekies, 2006) provide evidence to show that encounters with the natural world (from school playgrounds to outdoor wilderness programs) provide unique learning opportunities for children and promote healthy child development. Studies also document the value of indirect and vicarious experiences with nature (Kellert, as cited in York, 2014, p. 20). The following two workshops (Creative Writing and Stop-Motion Animation) were exercises in just that.

CREATIVE WRITING

> A writer, I think, is someone who pays attention to the world.
> — Susan Sontag

I wanted to give the students a general overview of the original Life Overlooked graduate project so I first showed them the short film I made about the much maligned milkweed plant. I also invited two fellow graduate students, Dylan McMahon and Ben Kapron, to share their Life Overlooked presentation on pigeons. They explained how pigeons had fallen from grace from their highly-valued messenger status in wartime days to the mere urban nuisances they are considered today. Their discussion about the passenger pigeon in particular sparked the kids' interest. McMahon and Kapron explained that during the 18th Century it was the most common bird in North America, possibly the world. At five billion strong they travelled in flocks so big that the sky went black for days as they flew overhead, yet within a century, overhunting and deforestation led to their extinction. The question that stuck with me most from the class's Q & A, perhaps because it was so heartbreakingly hopeful (as if birds were on equal

footing with humans) was asked by Nora Fitzpatrick, a Grade 5 student: “But why did the pigeons stay? Why didn’t they just leave?”

Art critic and high-school creative writing teacher Terence Dick led the next part of the workshop. After introducing himself (and explaining that he was also my husband and Emma’s dad), he read aloud the children’s story *The Owl and the Woodpecker* by Brian Wildsmith. He talked about how fables work (short stories often with animals that teach a lesson or moral) and explained the basic parts of any story (setting, character and drama/conflict). Photos of the different species were distributed randomly, one to each student, and in groups of three or four they were asked to write a fable featuring those animals or plants. The kids dove right into the exercise and, as they figured out how to tell a story from a non-human perspective, they came up with funny tales of strange meetings. They only had about fifteen minutes and then they picked someone in their group to read the story out loud to the class. Here’s one that three Grade 6 students came up with:

> Characters: coyote, skunk, peregrine falcon
> Setting: forest
> Conflict: The skunk smells bad so the coyote is annoyed and doesn’t like the smell. He finds a nice hollow log far away from the skunk, but a peregrine falcon lives there already so the peregrine falcon makes him leave.
>
> Once upon a time in a forest there lived a smelly skunk. Coming back from hunting for food one day the coyote seemed particularly annoyed by the skunk’s smell. He found that there were some certain places in the forest that didn’t stink. One of these places was a huge hollow log. The coyote visited it whenever he could, but the peregrine falcon lived there. She was frustrated that the coyote kept coming. She just wanted some peace and quiet, so she sent him away. When the coyote came back there were developers planning to chop down the forest. The animals didn’t know what to do. The coyote tried howling and the falcon tried flying low over the developer’s heads, but nothing worked. Finally, they had an idea. The skunk would spray the developers. She did and it worked! The coyote was still annoyed by the skunk’s smell and the falcon was still frustrated by the coyote, but they all learned to be tolerant of one another.

Terence also spoke about being a journalist. He asked the kids to pretend they were newspaper reporters who had to prepare for an interview with the species they would be assigned. As a class, they brainstormed all the possible things you might ask an animal or a plant from the general, (Where do you live? What do you eat?) to the more personal (Do you have kids? Is it hard to live with humans?). Keeping in mind Thomas King's sage observation that, "The truth about stories is, that's all we are," (2003, p. 2). I also encouraged the students to think about the stories we tell about their animals and plants and the ways they're represented in popular culture. I recorded all the questions and they became the guide for the class's first homework assignment and eventually the main page of the blog (https://grovelifeoverlooked.wordpress.com/).[12] The interview

[12] The full list of questions included: What's your name? What does your name mean? What's your Latin name? How are you born? What do you eat? What eats you? Where do you live? What's your habitat/ecosystem like? What does your home look like? Do

assignment (write an imaginary interview (between 1-3 pages) with your species[13] as if you're meeting it for the first time and know nothing about it) was inspired by a science blog, *Lab Bench to Park Bench*, I found online where the writer interviews a Downy woodpecker.[14]

I gave them this assignment as homework and their responses trickled in over the course of our two months together. I asked each kid to research their species but I didn't want them simply memorizing and rehashing facts. I liked how this exercise combined creative writing with practical information about species habitat and behavior. I especially loved the imagination, compassion, humour, research and attention to detail (including sound effects) demonstrated in the following interview by grade 5 student Ruby Brubaker-Plitt with a Rusty-Patched bumble bee.

> Rusty-patched bumble bee: Slurp, chew, slurp, chew.
> Me: Hey, whatcha doing?
> BB: I'm just drinking some nectar from this sunflower.
> Me: Oh, what else do you eat?
> BB: Well, I also drink the nectar from milkweed and other flowers.
> Me: Mmm, that sounds delicious. What's your name?
> BB: Rusty – well, Rusty Patched Bumble Bee, but the scientists call me *Bombus affinis*.
> Me: Why are you called that?
> BB: Well, look at me! I have a large rusty coloured patch on my second abdomen. Duh!
> Me: Sorry! I didn't notice. You don't have to be rude about it. You look a little big for bumble bee. Are the rest of you like that?

---

you live with friends or alone? What climate do you like? How do humans treat you? How do you treat them? How many of you are left? Are you at risk? Overlooked? Why? Who are your friends? Who are your enemies/predators? How do you sleep? Do you change shape/interests over the course of your life (like from a caterpillar to a butterfly)? How do you find a mate? Do you dance, sing, scream? Do you have kids? When? How many? Do you take care of them or do they have to fend for themselves? What stories have been told about you? Have you been in any movies or books or newspapers? How old are you? How long do you live? How do you die?

[13] My use of the possessive pronoun "your" or "their" in relation to species might suggest certain kind of ownership over a species that goes against everything the Life Overlooked project stands for, but it's merely a rhetorical convenience – albeit a problematical one.

[14] You can find the interview here https://labbenchtoparkbench.wordpress.com/2015/02/28/sticky-tongues-and-feather-nose-plugs-interview-with-a-downy-woodpecker/

BB: Excuse me, did you just call me fat. For your information I am only 1 centimetre long and wide, whereas my queen is about two.
Me: I'm sorry. I really didn't mean to offend you. So, do you and your family live around here?
BB: Well, I've lived in lots of places. For a while I lived in a nest on an old farm and then moved to this nice little spot near an open forest, and I even lived in the city for a while, but now I live here in this oak savanna. I'm a worker bee and my family are the other worker bees and of course my queen. But these days there are l less and less of us. I have lots of worries these days.
Me: Oh my, that's awful. What else are you worried about?
BB: Well, one of my main fears is being eaten by robber flies and crab spiders. In fact just yesterday a brother of mine died a painful death at the hand of a robber fly (sob). Raccoons, skunks and other mammals have also been known to eat us.
Me: I'm very sorry about your brother, but I'm wondering if you could tell me a little bit more about yourself.
BB: Sure. Did you know that my species was the most common bumble bee species until the 1980s, but now we are on the brink of extinction. There have been only 3 sightings of us in the last 10 years. I mean, I guess 4 now. Also I overwinter in abandoned rodent holes and rotting wood. Also nearly 70% plants reproduce by bees and one-third of human food supply depends on us. Also we are the first bumblebees to emerge in spring. Isn't this interesting?
Me: Ummmmmmmm, sure?
BB: Did you know people are trying to help us by creating recovery strategies, but if the humans weren't here then we probably wouldn't be on the brink of extinction because they wouldn't be destroying all my habitats, poisoning me with pesticides and killing all my yummy plants like bee-balm, spotted-joe pie weed, and hand-some harry……
Oh no I've been so distracted I forgot that I have to get back to work at the nest.
Me: Well, it was nice talking with you. Bye.
BB: Bye.
Me: Ahhhhhhh, Rusty! Watch out! A robber fly! Only three left (sigh).

This is one of the more comprehensive interviews. The length and content varied a lot according to interest and writing ability. Some of the interviews were straightforward and factual; others were more creative, almost fictional. The interview assignment (as well as the earlier fable-writing one) could be criticized for perpetuating a form of anthropomorphism. The students gave animals and plants the gamut of human qualities: the Rusty patched bumble bee worries, the American kestrel and mink get sad, eastern wolves are friendly, chimney swifts

are defensive and paranoid, cucumber magnolias have friends, worms get offended, barn owls get mad, etc. However, the process of having to create a two-way dialogue between themselves and their species encouraged the students to step outside rigid us-vs-them binaries, to imagine "the other" in a less disembodied form, and to understand that while they might share feelings and a home (or at least a province) with their species, their species lives are separate, yet intertwined with, and increasingly at the mercy of, ours. Prescient thinker and marine biologist Rachel Carson explains this co-existence perfectly: "Even in the vast and mysterious reaches of the sea we are brought back to the fundamental truth that nothing lives to itself" (as cited in Bolster, 2012, p. 265).

In the quest for objective knowledge, scientists have long distanced themselves from anthropomorphizing. Ecologist Carl Safina writes that the phobia is still widespread in scientific circles, but he takes the opposing position that anthropomorphism helps us understand animal behaviour. For Safina, denying the possibility that animals have thoughts and feelings only reinforces our own narrow-minded anthrocentric bias, that "We are special, better—best" (2016). He argues that attributing a human emotion to an animal is at least the best first guess at what it is experiencing (ibid). Put simply, Sarafina writes, "When your dog seems happy, they're a happy dog. When a dog happily chases a cat who seems scared; that cat's scared of the dog" (ibid).

In an interview in *The Guardian*, Patricia Ganea, a psychologist at the University of Toronto, acknowledges that anthropomorphism is a natural way for people to understand animal behaviour and, on the plus side, can create empathy for animals (2016). However, she warns that it can also lead to misunderstandings about the "biological processes in the natural world" and "inappropriate behaviours towards wild animals, such as trying to adopt a wild animal as a 'pet' or misinterpreting the actions of a wild animal" (ibid.).[15] Initially I

[15] Helen Macdonald's memoir, *H is for Hawk* explores this idea of not knowing animals or not being able to see them on their own terms for what they are. As a way dealing with personal grief Macdonald buys and raises a young goshawk, but the experience doesn't turn out the way she imagines. She writes, "'Nature in her green, tranquil woods heals and soothes all affliction,' wrote John Muir. 'Earth hath no sorrows that earth

worried that the students might avoid describing everyday "biological processes" – animals hunt, they kill, they die, they mate[16] – because it made them uncomfortable. As Darwin warned us early on, the natural world can be a cruel and brutal place. I also wondered how stereotypically gendered their understandings would be. Would more boys, for example, sensationalize the violence as an animal killed its prey? It's hard to make any definitive conclusions, but most of the students seemed interested in representing their species as realistically as possible (with a little humour!). If anything I'd have to say that the female students blew my gendered assumptions out the window with their graphic depictions of hunting. For example, in "Interview with a Mink," Aislin McWilliams-Roht writes,

> Aislin: Tell me, what do most minks eat?
> Mink: We mostly eat muskrats, rabbits, mice, chipmunks, fish, snakes, frogs, birds… you know the lot.
> Aislin: Interesting…so you're a carnivore? I know who you eat but wha-
> Mink: Do ya wanna know how I kill 'em?
> Aislin: What?
> Mink: Kill 'em, my food, my prey. Do-You-Want-To-Know-How-I-Kill-My-Prey?
> Aislin: I-
> Mink: OK, so I get all quiet like, ya know, and I sneak up and then and then… I bite the neck so hard it crumbles under my teeth, and then they get all heavy like and I start to rip off their he-
> Aislin: Ok…Ok… I get it. Stop already.
> Mink: F-I-N-E

Along the same vein, when the American kestrel tells Estella Turnbull that she's hunting, Estella says, "Oh, that's so cool! I don't get to hunt. I hope that you don't mind if I ask you, but I would like to know how you hunt? It just sounds so cool to be able to catch your own food!" The bird replies, "Well, okay, if you insist. Let's see here. First, I perch, spot my prey, hover over it, and strike." In Maeve

---

cannot heal.' Now I knew this for what it was: a beguiling but dangerous lie. I was furious with myself and my own conscious certainty that this was the cure I needed. Hands are for other humans to hold. They should not be reserved exclusively as perches for hawks. And the wild is not a panacea for the human soul; too much in the air can corrode it to nothing." (2016, p. 218)

[16] Only three students chose plants, so I often focus more on animals in this essay.

Leckie's "Interview with an Eastern Wolf," she asks the wolf what he eats and he replies matter-of-factly, "I eat mostly white-tailed deer and kill calves. I eat unhealthy and sick animals as well as animals with disease to keep the forest healthy. Also they are easier to kill, but mostly because it's healthy for the forest."

There are also plenty of examples that demonstrate that the students' tendency to anthropomorphize didn't get in the way of learning how their species behaved in the wild. For example, Dessa Ely in her "Interview with a Monarch," asks, "How do you know to fly away from the chrysalis right after you hatch? I've always found that fascinating," and the butterfly responds, "Instinct. Unlike you odd humans, we don't have to learn much. We're genetically programmed to do things like fly, find food and migrate." In Pema Smith's interview with a wild lupin, she addresses the plant/human divide head-on. She asks, "How do [humans] treat you? How do you treat them?" and the wild lupin replies, "I can't really treat them in a certain way because I'm a plant, but I do give them my beauty." The lupin's response obviously reflects the instrumental relationship humans have long had with nature, one entrenched in hierarchical ways of thinking that go back to the beginning of Western philosophical thought. Neil Evernden refers to this human/nature split as a form of "organic apartheid" (1992) and, as Jan Oakley writes, paraphrasing Evernden, "once we recognize and accept that all life is organically and evolutionarily related, the core fiction of this dichotomy will be exposed" (2010, p. 90). This reimagining requires a massive paradigm shift away from an anthropocentric worldview to what some theorists refer to as "a biocentric" one – a worldview that sees the inherent value in all living things with humans living alongside, not on top of, other species (Taylor, 1986).

More recently, philosophers such as Michael Marder, Jane Bennett, Eben Kirksey, Timothy Morton and Cary Wolfe have carved out new theoretical terrain that challenges human exceptionalism, arguing instead for ethical, convivial modes of relating to non-human life. Marder's work, for instance, explores a way of thinking about vegetal life that acknowledges its subjectivity (its capacities, exuberance and intelligence) while simultaneously respecting its specificity, that is, its mode of being or ontology. In *Plant Thinking: A Philosophy of Vegetal Life*,

he writes, “All we can hope for is to brush upon the edges of their being,” (2013, p.13).

Wild lupin, cucumber magnolia and milkweed were the only plants in the project. The majority of the students chose animals – living things closer to us on the great chain of being and perhaps easier to identify with. However, as Leesa Fawcett reminds us her article, “Children’s Wild Animal Stories: Questioning Inter-Species Bonds,” we still live in a culture that teaches children to separate themselves from their “animalness” (2002, p. 133). For Fawcett, the opportunity to experience and differentiate between other animals gives children a wider sense of self that extends beyond themselves as individuals (ibid, p. 136). Addressing this interconnected reality is at the root of what the Life Overlooked project is all about.

Many of the students also discussed the political conflicts that result from our inability to respect plants and animals, and took the opportunity to defend their species, criticizing humans (i.e. themselves) for their disgraceful environmental track record and general lack of empathy. Some interviews reflected a profound sense of frustration and confusion. When Nora Fitzpatrick-O’Connell asks the cucumber magnolia, “Is it hard to live with humans?” the tree replies: “Well, no offense but no matter what, you’re always hard to live with, and your logging is in most cases a problem to us and may cause our extinction!” When Dexter Lieberthal-Brazier’s asks the Canada goose the same question, the animal replies:

> It’s so hard to live with them that some kind humans even created an organization called Geese Peace. They help resolve human and geese conflicts. We have problems in the spring because we eat farmers’ wheat seedlings and in the fall they have a problem with us eating all the tasty, fresh wheat. In city parks and beaches we poo all over the sand and grass. Humans disrespect us for this reason. Now people are trying to modify our habitats and make it so we can’t live there anymore. I can’t believe they complain about us pooing on their beaches and parks when they buy expensive jackets called Canada Goose and kill coyotes for their fur. Yet again killing an animal at risk for human uses.

I also appreciated how funny and irreverent the interviews were. For instance, when Nora asks the magnolia, “How are you born? May I ask?” the tree responds, “Sure, it’s not a touchy subject like it is for some people!” and then goes on to explain that it’s a cone-bearing plant. In Azzura Woodfine’s interview with a gray fox she asks, “So how many kids? Ok sorry, how many kits are there in an average litter size?” I took the playfulness inherent in the writing as a sign that they had fun doing it. But the humour was always accompanied by a great deal of concern for their species. For instance, when Maeve Leckie asks the eastern wolf who its major predators are, the wolf responds “some humans, bears and other wolves,” and Leckie replies, “Oh be careful. I don’t want you getting hurt. You are one of my favourite animals and I would do anything to make sure you’re safe.” When Isa Blackstock-Berinstein asks the eastern massasauga rattlesnake how humans treat it, the rattlesnake replies, “They are very hard to live with because they try to kill me with guns, sticks, rocks and traps.” When she asks how they treat humans, the snake says, “I often hide and blend in with sticks and occasionally, if humans don’t go away after a few hisses and I am feeling threatened, I will bite them – although that is very rare.” Most of these students had attended this alternative public school, where issues of social justice were part of their everyday curriculum, since Grade 1. They were well-versed in the serious environmental problems facing our planet, so on some level I wasn’t surprised by the compassion that came through in the interviews, but it also struck me that their compassion came from a place that wasn’t only political, but emotional and, going back to Edward O. Wilson’s hypothesis, biophilic.

STOP MOTION ANIMATION

> I always say art can't change the world, but it can be a very strong ally for unconventional ways of looking at the world. – Lucy Lippard

This class was taught by Anne Koizumi, who completed her MFA in Film at York University and taught animation workshops to school-aged children through the National Film Board in Montreal. When my daughter Emma was in Grade 3, Anne taught her simple animation techniques so she could make a film

for her class presentation on the panda bear.[17] Emma enjoyed the creative process so much that when I was conceiving Life Overlooked I knew making short animated films would be an essential component.

I split the class into seven groups of three or four students and each group was asked to come up with a short story or scenario that starred each of their species. With the assistance of Grove teacher Shannon Greene we built dioramas and created plasticine characters during her art class earlier in the week, so that when Anne arrived the students were ready to animate. She began the workshop by going over the basic principles of animation. Then she showed them how to use the NFB StopMo Studio app on the iPad. Soon they were working in their teams with little direction. "What I love about teaching animation," Anne told me that day, "is how quickly students grasp the concept." Within two hours each group had made a short film. They'd created a story and animated it collaboratively. In an email exchange with Anne after the workshop she wrote that she was impressed by the way the students worked together: "It's not an easy task to come up with a story in a group!" She was also struck by how distinct each film was: "While a film like *Metamorphosis* explores the factual by animating the life cycle of the monarch butterfly, others like *Top Hats* are more surreal and whimsical." Commenting more generally on the potential learning that comes from making animation, she wrote, "Creating a narrative helps develop the relationship between storyteller and character – or, in this case, species. As we build stories around the characters we can begin to think about them as part of our own narrative and consider what they mean to us."

The interesting thing about the act of storytelling itself is that in some ways it mirrors the goal of the Life Overlooked project more generally – to look beyond yourself, to imagine the lives of others. In an online article in *Lithub*, author Brandon Taylor describes the story-writing process as one that "requires you to enter into the lives of other people, to imagine circumstances as varied, as mundane, as painful, as beautiful, and as alive as your own" (2016). He

[17] The 45-second film can be found here: https://vimeo.com/42130067. The password is panda.

continues, “the distance between self and the other is never as great as we imagine it to be – the two are often twinned” (ibid). The “other” in this instance is another human, but the same could be said of non-human life.[18] By asking students to become storytellers and amateur naturalists I hoped that small transformations in perception would take place.

Unlike the written interview exercise, humans were kept out of the animations. With one exception (*Farewell* a movie, according to its makers “about a worm, a red-headed woodpecker, an eastern elk from 100 years ago and a human being who changes everything”), all the students fully immersed themselves in make-believe, animal and plant worlds. A few of the imaginary environments they created were rooted in realism (*Metaphorphosis* and *Farewell*), whereas the others (*Top Hats: An Adventure Story*, *Log Wars*, *Egg Problems and Pizza to Go*, *Best Friends Forever*, and *The Mishap*) were more fantastical, but they all revealed idiosyncratic experiences with nature that transcended normal everyday encounters (the animations can be found here: https://grovelifeoverlooked.wordpress.com/animations/). Professor Laurie Ricou, in his book *Salal*, writes, “So massive and daunting are the environmental crises facing us- facing the earth – that nothing short of a massive reimagining, a shift in the imaginary, will work. Our role as writers, teachers and readers is in part to contribute to that foundational imagining. We must learn to be communicators, to find community with spider and bird” (p.168). The students imagined their animated worlds very differently, but they were all communicators, giving voice to their species and searching for community (*Log Wars* and *Best Friends Forever* are good examples of this).

The animation workshop required the most time and effort and, according to the short student questionnaire they filled out after the course ended, it was

[18] Following up on Michael Marder’s observations about plant life (2013), this human/non-human distance is easier to bridge with animals (humans are, of course, animals too). But as Cate Sandiland’s points out in “Floral Sensations: Plant Biopolitics,” “…plants are not simply infinitely manipulable bundles of vegetal resources, but rather complexly embodied and actively *sensate* creatures whose individual and evolutionary lives are deeply intertwined with our own.” (2016, p. 228) It’s important to consider the crossover between us to assuage further division.

the most popular (17 out of 26 kids listed it as one of their favourites). I think its success is inextricably linked to our current cultural preoccupation with technology. They were excited to use iPads and learn a new stop motion app. I have some reservations about bringing this technology into the classroom, especially when young people's increased connection to virtual worlds is leading to less time in natural ones.[19]. The danger in using electronic media in an educational context, writes Rachel York in her PhD thesis, *Re-connecting with Nature: Transformative Environmental Education through the Arts*, is that it reduces students from "embodied beings to purely cognitive and sedentary ones" (2014). I think the animation project transcended some of the limitations associated with the medium. The digital technology excited them, which made the learning relevant and fun, and it was also used in combination with other more embodied art forms – painting (dioramas), sculpting (animals and plants) and writing (story boards). York doesn't dismiss the value of electronic media when they encourage students to engage with nature directly, but she argues that they can't be the only method. They can't replace embodied practices (2014). With this in mind the next workshop focused on movement and dance.

[19] An Active Healthy Kids Canada 2013 study reported that, "Canadian kids were spending an average of 7.5 hours in front of screens each day," and more recently a 2015 report by The Common Sense Census in the US reported that American teenagers (13- to 18-year-olds) spend an average of about nine hours a day in front of a screen.

MOVEMENT AND DANCE

I loved to dance because I was scared to speak. When I was moving, I could feel. —Pina Bausch

Stop. If you're inside, go to a window. Throw it open and turn your face to the sky. All that empty space, the deep vastness of the air, the heavens wide above you. The sky is full of insects, and all of them are going somewhere. Every day, above and around us, the collective voyage of billions of beings….the first thing not to forget. There are other worlds around us. Too often, we pass through them unknowing, seeing but blind, hearing but deaf, touching but not feeling, contained by the limits of our senses, the banality of our imaginations, our Ptolemaic certitudes.
—Hugh Raffles, *Insectopedia*

This directive by anthropologist Hugh Raffles encourages us to see beyond our human selves. However, in order to do that we need to activate our senses and our imaginations. I knew that dance had the potential to communicate and embody that kind of experience. Contemporary dancer and PhD Dance Studies student Sally Morgan was part of the original MES Life Overlooked project with me. Of all the art forms I introduced to the students, dance was the one I knew the least about, so I wanted to bring in someone who understood the project, had worked with kids and had years of experience in dance and performance. She began her workshop, *Dance Where You Are*, with the following questions: “Are you ready to bend with the trees and move like the wind? Can you think like a mountain? Move like a butterfly? Communicate like a snake?” Then she explained to the class, “Using all of our senses, we will breathe, move, dance, explore and play with and in our natural environment, bringing life to and noticing the life in the trees, plants and animals that surround us.”

At first she got the kids stretching, moving and running around to a few pop songs in the school basement. After the warm-up they formed a circle and were asked to introduce themselves as well as their animal or plant. They jumped into the circle, one at a time, and performed a gesture characteristic of their species. In this previous picture two students squirm like a worm.
Sally then asked the kids to come up with two more gestures each and in partners improvise a call/response "conversation" made up of gestures between their two species. This conversation formed the basis of a short composition of six movements. The class moved outside and she asked them (in the same partners) to choose an area in the playground that suited their animal/plant pairing. As a way of encouraging a more embodied and sensory approach to learning about their environment, she gave each pair a blindfold and asked them to take turns with it on until they sensed a spot they liked. That location became the starting point of their conversation/performance. You can find a few of the compositions on the blog (https://grovelifeoverlooked.wordpress.com/movementdance/).

In their award-winning 1977 children's book *The View from the Oak*, Judith and Herbert Kohl explore the private worlds of animals. They encourage the reader to move away from our familiar human world to experience other creatures. They remind us something that we too easily forget: "The human view of the world is only one among many" (2000, p. 92). They begin the book by identifying three central qualities that all animals share: locating themselves in space, growth and change (which they also refer to as time) and responding to threats, friendship and food (ibid., p. 10). According to the Kohls, understanding how these aspects work for a particular animal provides insight into how they feel and function. In order to do this, they emphasize the following:

> We have to disorient ourselves - to give up our own usual sense of how time flows and what distance means as well as our sense of what feels threatening or friendly. To become close to other worlds means giving up our own for a while. (ibid)

They borrow from Jakob von Uexkull's concept of the "Umwelt," which when translated means the world around a living organism as that creature experiences it through its senses (as cited in Kohl, p. 5). A German biologist living in the late 19th early 20th century, von Uexkull was one of the first scientists who wrote about the world from the perspective of animals (ibid). For him, each creature has its own "umwelt" – living things may share the same environment but each one lives in its own particular "umwelt." The activities that the students were asked to do during the dance workshop were a way of getting them to imagine the different "umwelts" of their chosen species. I was worried that the students would feel too shy and conspicuous to participate in these exercises. Even the Kohls' acknowledge that "trying to imagine the worlds of animals or actually becoming part of their worlds, often leads people to behave in ways that seem bizarre to uninformed neighbours or casual spectators," (p. 19). At 11 and 12 years old, the students were just at the tipping point between childhood and adolescence when self-consciousness is beginning to take hold. Luckily though, fear of looking bizarre or not looking cool didn't seem to get in the way of their enthusiasm.

In the final questionnaire only two of the students identified it as one of their favourite workshops but I felt like all of them got more out of the experience than perhaps they were aware of. "I really liked the dance workshop because it was great to get to embody my species and dance or move as if I was my species," wrote Sarala Lachman. It was admittedly the most challenging of all the workshops; it required the most openness and willingness to step outside the students' comfort zone.

The Kohls suggest a range of activities to help people get closer to various animal worlds: set up an obstacle course and crawl through it blindfolded to experience how an ant moves through space using mostly the sense of touch; make a model using a box, strings, wires and a bell to understand a clam's sense of balance; quietly observe a spider in its web for ten minutes in the morning and at night, and so on (2000). They also share many fascinating facts and insights about the animals they discuss in their book. It becomes clear that having

specific knowledge of an animal, about the three central aspects of their lives (space, time and response), is an important first step in being able to understand more about their world. More time at the start of the course for this kind of background research would have made this workshop a stronger learning experience for students. The class was full of thoughtful, independently-minded, curious young people, but some were more disciplined than others when it came to homework (as evidenced in their final interviews); if I were to do the course again I would have allotted more in-class time, especially for researching the interview, as it is a stepping stone to all the other workshops.

BATIK

> Drawing makes you look at the world more closely. It helps you to see what you're looking at more clearly. — David Almond, *Skellig*

In 2015 I met the artist Gabrielle Lasporte at an Artist-Educator Foundations Course sponsored by The Royal Conservatory and the Ontario Arts Council. It was a 30 hour course for practicing artists like myself who wanted to learn practical arts education teaching skills and strategies for working in schools and community settings. As soon as she spoke about her modern batik workshops in schools I knew I wanted to collaborate with her on the Life Overlooked project. I hadn't thought about batik since my summer camp days in

the 1970s. I was excited about re-introducing an overlooked art form into the classroom and seeing how the students engaged with it.

A few days before the workshop in their regular art class, the students made a rough sketch of their animal or plant, so when Gabrielle arrived they were ready to trace their species on good paper and begin the batik process. Drawing their species free-hand did not come easily to everyone, but even the students who chose to trace their animal or plant (based on simple drawings I'd found on Google Images) got a hands-on morphology lesson. They'd already studied their species' appearance – the shape, structure, colour, pattern, and size – while they were molding them out of plasticine for their animations. This exercise built on that knowledge, but in a different medium. I hoped it would give students more insight and admiration for the uniqueness of their creature.

After the drawings were complete, students outlined their animal or plant in wax and then applied colour dyes, more wax and more colour. Gabrielle told them to use their imaginations with the colours. "Don't worry about making your animal or plant look like it does in real life," she said. The dye choices were limited so even those students who wanted to make their species look as realistic as possible couldn't. I appreciated that Gabrielle encouraged students to stray from realism for this exercise. It made the experience more creative, and it also took the pressure off – there was no right way to represent their animal or plant. At the end of the workshop Gabrielle ironed the wax off the paper. I was amazed at how beautifully they turned out. I think we all were.

The students enjoyed this workshop. Based on the questionnaire it was the most popular one after the animation. One of the students said that she liked the batik because she had "a chance to draw her species and use a little creativity to show where the animal lives." Another said it was their favourite workshop because they "got to see what other people's animals look like." I wish the students had had more time to collectively exchange stories and pictures about their species. When I was putting the course together I wanted each student to give a final presentation to the class discussing their work, thoughts and feelings about the project etc., but we ran out of time. Once the blog was up

online, however, I sent the kids and their parents the link to look at and discuss amongst themselves.

PERFORMANCE

> Try to learn to let what is unfair teach you.
> —David Foster Wallace, *Infinite Jest*

Darren O'Donnell is the artistic director of Mammalian Diving Reflex (MDR), a socially-engaged, participatory theatre company that, according to their website, triggers "generosity and equity across the universe" through a myriad of different artistic interventions. Years ago I made a short film about one of their projects, *Haircuts by Children*, in which children aged 8 to 12 gave free haircuts to the public in hair salons throughout Toronto. This self-described "whimsical relational performance" upset the traditional adult and child power dynamic and offered a vanity lesson on the side. MDR has created over fifty playful, political, and provocative projects like this one,[20] and I'm a huge advocate of their approach. When I began to think about Life Overlooked I knew that Darren's participation would enrich the project enormously. He's a gifted artist/educator and he's genuinely as interested in learning from young people as he is in inspiring them.

When I first emailed him about the idea, he wrote, "I'd like to do something related to imagining the earth without humans." And then a week later, "How about a court case, where we all play different animals and plants and decide whether or not we need to kick the humans off the planet. We can have a jury, a judge, lawyers, witnesses." I was excited about the idea of staging a mock trial. It

[20] All the projects are listed on their website http://mammalian.ca/projects/ but to get a better sense of what they do, I wanted to mention a few here: *Nightwalks with Teenagers* brings together two groups of young people (one local, one non-local) to organize and lead public walks through the city at night; for *These Are the People in Your Neighbourhood*, kids give public tours of local businesses in their community; *Teentalitarianism* explores the idea of a state where teenage performers rule and adult audiences submit to their authority.

was like turning the idea of an animal trial from the Middle Ages on its head.[21]

Humanity on Trial was an interactive one-off performance that Darren oversaw with the assistance of his five Mammmalian youth collaborators (Virginia Antonipillai, Lasasha Nesbeth, Ana-Marija Stojic, Wendell Williams and Alana Wortsman). Based on how each student in the class self-identified, Darren asked them to form groups. If you have big opinions and like arguing, he told them, join one of the lawyer teams. If you are thoughtful and not as loud, you should join the jury, and if you are passionate about a particular plant and animal, you should become a witness. Darren played the role of humanity and was subject to cross-examination. Together the class had to decide if humanity, considering all the damage it had done, should be banished from the planet.

The trial was passionate, with everyone making strong arguments on both sides. In a discussion with Darren afterwards, he said he found the jury deliberations particularly interesting because the students took the concept so seriously.[22] In the end, humanity was found guilty. We only had an afternoon (about two hours) to do the entire exercise. In an email exchange after the workshop, Darren wrote, “It was definitely an improvised experiment, but one with strong potential as a teaching device, especially if it were built into an extended unit of study and activity.”

In order to work as a legal battle with non-human witnesses testifying on both sides, Darren introduced the idea of animals that had benefited from climate change. I would revise this if I were to do it again. Any change in water temperature, for example, that makes it easier for jellyfish to proliferate is merely a by-product of human carelessness. Humans aren't the noble saviours worth defending here. It's interesting to think of the mock trial concept in terms of Eben Kirksey’s work on species that are emerging and forming new ecosystems in

---

[21] In medieval and early modern Europe animals were put on trial for a range of acts including assault, murder, bestiality, possessing spiritual powers. Published in 1906, E.P. Evans book, *The Criminal Prosecution and Capital Punishment of* Animals, documents these court cases.

[22] Unfortunately the battery in my camera died by that point, so I only caught the witnesses testifying. You can see the somewhat abridged trial at https://grovelifeoverlooked.wordpress.com/performance/.

blasted out landscapes (2015). They are powerful symbols of resistance and hope, but they owe humanity nothing. Without running the risk of dogmatism here, I wonder how the trial could reflect more realistic, contemporary contexts? Perhaps it could take the form of a truth and reconciliation commission, where non-human victims/survivors would share their stories and confront their former human abusers. But maybe this approach would be too heavy-handed and overwhelming for the students. I need to reflect on this further.

This was the first workshop where every doomsday environmental scenario imaginable was introduced, encouraged and discussed. But unlike the Grade 2 tar sands experience, the students weren't overwhelmed this time. Another advantage of this approach was that the students weren't listening to an expert tell them about an environmental problem; they were collectively and actively engaged in trying to perform, explain and resolve the problems themselves. The subject matter (global warming, pollution, mass extinction) was presented seriously but within the context of lively debate (the students got so riled up that their teacher Janice kept on asking them to stop interrupting each other). Early on in this paper I quoted Meri-Helga Mantere's approach to AEE as one that encouraged "an openness to sensitivity, new and personal ways to articulate and share one's environmental experiences, which might be beautiful but also disgusting, peaceful but also threatening" (1998, p. 2). More than any of the workshops the trial captured this messy, challenging form of learning, one that evoked intense and contradictory feelings, but also gave everyone in the class a voice. And from the final questionnaire I got a sense that people felt heard. Quite a few of the students considered it one of their favourite activities, and one even wrote, "I LOVED the trial." I was so grateful to Darren and the MDR crew for this workshop. It opened up a dialogue about environmental crisis that made students feel less like passive bystanders and more like active participants in search of solutions.

POETRY/HAIKU

> After everything that's happened, how can the world still be so beautiful?
> — Margaret Atwood, *Oryx and Crake*

The final workshop was a photography/poetry exercise that had the students step outside the worlds of their individual creatures to explore the environment around their school. In small groups I asked them to take pictures of nature in the urban environment inside school or outside in the playground. I wanted them to look with fresh eyes at the place where they had spent almost half their lives, to notice other "unwelts" around them. I wanted the experience to evoke delight, surprise, strangeness, gratitude and beauty. In reflecting back on nature's myriad meanings, I wanted this exercise to bring to life Elizabeth Meyer's astute observation that, "Nature is not out there, but in here, interwoven into the human urban condition" (2011).

I asked the students to look for objects, scenes or landscapes where they saw connections or collisions between natural and urban worlds. After each person took at least five photos (each group shared an iPhone), we met back in the classroom. We reviewed the basic structure of haiku and I asked them to write a poem about their favourite photo. I chose haiku because the students were already familiar with the form and because of its simplicity, but also because it's a form of Japanese verse that's traditionally about nature. I added the poetry component after they'd already taken their pictures because I didn't want to overwhelm them with too many creative tasks at once, and I didn't' want to limit what they chose to take pictures of. Many of the students volunteered to read their poems aloud to the class.

Environmental philosopher Neil Evernden maps out three different ways of conceptualizing our relationship to nature – nature-as-object, nature-as-self and nature-as-miracle (1988, 1992). Although I never used that language with the students, we had already addressed many of the environmental problems that arise from seeing nature as object, as merely a resource to be managed and exploited. Nature-as-self views nature as an extension of the self, as something

we are part of and need to protect. It's definitely a less oppositional, approach, but it still puts humans front and centre (as cited in Fawcett, 2005). Perhaps this relationship is best illustrated by the way students anthropomorphized their species in many of the interviews. Nature-as-miracle, although not definable in any rational sense, is the experience of being able to relate to nature on its own terms, while acknowledging its mysteriousness or indescribable wonder (ibid). It's a somewhat vague but beautiful concept that reminded me of how poet C.D. Wright describes poets as people who are "stunned by existence" (1999). Nature-as-miracle invokes that same response to all living things. I can't say for certain if the students had any sustained encounter with nature in this way, but after looking at their photographs and reading their haikus, I believe they got close. I've included a few examples.[23]

Little maple key,
lying there so peacefully,
on the warm cement.
– Estella Turnbull

[23] All of the haikus are on the blog: https://grovelifeoverlooked.wordpress.com/haikus/.

Beautiful garden
in the street for people to
enjoy happily.
– Zack Hilliard-Ford

Sparkles in the sun,
delicate and beautiful,
spun so gracefully.
– Ruby Brubaker-Plitt

Slipping silently
through the cracks, where
no one sees.
Thriving, growing, green.
– Sarala Lachman

I was struck by the simple, quiet beauty of their text/photo combinations. I think that beauty is integral to this experience of nature-as-miracle. In her book, *On Beauty and Being Just*, Elaine Scarry writes about beauty's potential for "radical decentering" (1999, p. 111). When we see a beautiful thing, she writes,

> It is not that we cease to stand at the centre of the world, for we never stood there. It is that we cease to stand even at the centre of our own world. We willingly cede the ground to the thing that stands before us. (ibid., p. 112)

Scarry defends beauty from its critics in the humanities, who for the past two decades have regarded it as trivial and distracting from more important political concerns. She goes so far to suggest that beauty leads to the pursuit of justice. Like Scarry I'm interested in the transformative power of beauty. Beautiful images of nature abound. They're ubiquitous to the point of losing all meaning. American writer Rebecca Solnit addresses this question of representation in an online interview in *The Believer.* When asked what place and value beauty has in the environmental movement, she replies,

> There's room for a lot of kinds of beauty and thoughtfulness. But I think we need to free people up from the clichés of that way of seeing…I don't think the environmental movement needs to abandon beauty, but I think they need more innovation and visual sophistication in teaching people to see. There are lots of kinds of beauty. (2006)

The students' work during this workshop captured the beauty of nature in all its various manifestations. Rachel Carson famously writes that, "A child's world is fresh and new and beautiful, full of wonder and excitement" (1956, 1998 p. 54). She continues: "It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood" (ibid). At 10, 11 and 12 years old the students were technically still children, but they all seemed to be in such a hurry to grow up. It was heartwarming to witness this "clear-eyed vision," their capacity to see with wonder.[24]

At the end of this final workshop I read *The Other Way to Listen* by children's author Bryd Baylor to the class. If this environmental arts project was able to impart even just some of the wisdom embedded in this remarkable children's book, then I feel like the project was worthwhile. The book begins with a boy describing an old man:

> He was so good at listening – once he heard wildflower seeds burst open, beginning to grow underground…. He told me how a friend of his once heard a whole sky full of stars when she was seven. And later on when she was eighty-three she heard a cactus blooming in the dark. (1997)

[24] "Wonder" is an elusive and overused term that some might argue verges on cliché. It's often associated with a childlike naiveté. Plato famously wrote that "philosophy begins in wonder," and Aristotle echoed this view suggesting that it was wonder which led philosophers to try to understand the world. Contemporary British psychiatrist and author Dr. Neel Burton describes it as a "complex emotion involving elements of surprise, curiosity, contemplation, and joy … perhaps best defined as a heightened state of consciousness and emotion brought about by something singularly beautiful, rare, or unexpected" (2014). He argues that wonder draws us out of ourselves and connects us with something greater than our everyday lives (ibid). From this it's not hard to see how wonder at the natural world can help us to better understand and connect with it. It's an essential catalyst for learning, capturing that moment when something new enters one's consciousness for the first time, but it's a tall order for an educator to rely on. You can't teach or plan for wonder, but you can place students in different environments and introduce them to new and interesting activities and hope that it happens. In a *Guardian* interview nature writer Robert Macfarlane emphasizes how wonder can bring with it a sense of "good environmental practice," but he also acknowledges that it can become "an easy substitute for care" (2005). This suggests that wonder might not serve any useful larger practical purpose unless it's coupled with environmentally-conscious changes in human behaviour.

Later on the old man tells the boy:

> "Most people never hear those things at all."
> I said, "I wonder why."
> He said, "They just don't take the time you need for something that is important."
> I said, "I'll take the time. But first you have to teach me.""I'd like to if I could," he said, "but the thing is you have to learn it from the hills and ants and lizards and weeds and things like that. They do the teaching around here."
> "Just give me a clue on how to start," I said.
> And so he said, "Do this: go get to know one thing as well as you can. It should be something small. Don't start with a mountain. Don't start with the whole Pacific Ocean. Start with one seed pod or one dry weed or one horned toad or one handful of dirt or one sandy wash." (ibid.)

THE END

> The world is before you, and you need not take it or leave it as it was when you came in. — James Baldwin, *Nobody Knows My Name*

Time flew by and it felt like we only skimmed the surface of things. Each workshop could have been expanded into a longer, more concentrated unit of study with detailed lesson plans. Even the students agreed. During the last class I handed out a questionnaire.[25] One of the questions asked how they would do the project differently, and many of the responses overlapped:

> "I wish there was time for more learning."
> "I think we could have talked more about our species."
> "The research part was hard because I had to do it on my own time. I wish I had worked harder on discovering more about my species. I would tell other kids to work hard on the research, it's worth it at the end."
> "I think I would have done a bit more factual learning."

[25] The full list of questions on the questionnaire included: Did you like that you got to focus on just one species? Why? Why do you think it's important to get to know one species really well? What was your favourite activity (or activities) and why? What did you learn that you didn't already know? Did this project change the way you think about your relationship to animals and plants? In what way? (Even if it's in a very small way write it down!) Do you think about nature differently now? In what way? What did you like about this project? If you were going to do this project with a group of kids what would you do differently? (Be honest. Don't worry about hurting my feelings!) A selection of their answers can be found here https://grovelifeoverlooked.wordpress.com/feedback/

This is important advice, but incorporating more factual learning into an environmental arts project like Life Overlooked comes with it challenges. In the introduction to his book *Naked Trees*, poet John Terpstra writes, "When I wanted to know what to call the trees I was talking to, I looked in Native Trees of Canada…. It gave names as well as identifying features; shape, leaves, and bark, habitat. All the facts, so you could spot one in a crowd. Exactly what I wanted. But frustrating too, because so much about trees, about the experience of trees, was not there" (2012, p. 7). I love this observation of Terpstra's about the limits of knowledge. For a project like Life Overlooked to work and engage students on both an academic and emotional level, you needed a good head/heart, scientific/experiential balance. Elliot Eisner, esteemed American scholar of arts education, wrote a manifesto of sorts entitled "10 Lessons the Arts Teach" (2002). Many of the lessons touch on the ways art can supplement more conventional forms of learning including "the arts traffic in subtleties," and "the arts help children learn to say what cannot be said." In his fifth lesson, he states, "the arts make vivid that fact that neither words in their literal form nor numbers exhaust what we can know. The limits of our language do not define the limits of our cognition" (ibid., p. 70-92).

To me one of the biggest shortcomings of the project was that we didn't have time to follow through on all the goals of place-based education. The project brought students out of the classroom into the natural environment and it foregrounded local ecological issues, but we didn't take the next step to consider the ways in which we could collectively work together to improve the quality of lives, of our species lives, in our own neighbourhoods. Laurie Ricou in his article, "Disturbance-Loving Species: Habitat Studies, Ecocritical Pedagogy and Canadian Literature," takes seriously the advice of philosopher Kathleen Dean Moore: "Wonder closes the distance between what is and what ought to be … but witness is not enough, reverence must be engaged and active" (p.169, 2014). During Life Overlooked, wonder never left our side; its presence was palpable. With each new workshop, guest artist and art form I could feel the reverence growing stronger. In the final questionnaire Sarala Lachman wrote, "When I see a report on an animal or hear about a plant, I just listen more closely than I would have before this project. My sisters and I were exited to see

milkweed in our garden this summer because we learned about milkweed being overlooked. We're letting it stay in our garden instead of pulling it up. We hope it will attract monarchs." Another student wrote, "Nature helps us a lot, but we are abusing the privilege." Another put it bluntly, "We shouldn't destroy it." If there is a next time I would devote workshops that focus on taking action – a milkweed plant sale to help the monarchs, a student art show to raise money for the Ontario Barn Owl Recovery Project or the Canadian Wildlife Federation Bat Box fund, or a Life Overlooked teach-in organized by the students featuring their animations and live re-enactments of their interviews given to lower grades at the school — the list goes on.

My AEE experiment had its shortcomings, but it was a beginning, and the jam-packed art-filled adventure got the students thinking about local plant and animal life in ways they hadn't before. I knew it was a grand, perhaps idealistic goal, but I'd hoped the experience would get them to pay extra attention to the value of non-human life as well as care for their local environment in ways (however small) they might not have before. To encounter other beings "as living subjects of significance" Neil Evernden asks that we loosen "the conceptual bindings of nature so that subjectivity can flow back in, like water to a scorched garden" (1992, p. 108). Early on I asked if a project like Life Overlooked could bring this striking simile to life. I don't have conclusive evidence, but their answers to my question of whether they had learned anything new suggest that those encounters happened:

"I definitely look at pigeons differently since we learned about them being overlooked."
"I used to think toads were gross, but now I think they're cool."
"It made me notice that there is more to animals than meets the eye."
"I learned that so many things rely on each other."
"That if you try you can see beauty in anything."
"I learned that everything is different and has its own voice."
"I learned that all plants and animals have a purpose."
"I think I used to generalize more. Now I think about things as their own individuals."
"I see more details and colours in animals and plants."
"I wonder what's happening to them."
"It made me notice animals in a different way, like they have a voice and they might not be happy."

“It made me think twice about animals and plants. I value nature more. It feels more precious.”
“I learned that all small things matter.”
“I learned that nature can be found everywhere, even in the cracks in the road.”

Overall, the students gave positive feedback about the project. Based on their enthusiasm from one workshop to the next, their thoughtful work throughout (many examples of which are included throughout this essay) and their responses in the questionnaire, I felt like the project succeeded in inciting discovery and new-found awareness for the living things in their environment. I have no way of knowing how long these connections will last or how they will manifest later on. Shifts in perspective can take a lifetime, but I hope a small seed was planted.

(batik by Emma O’Brien)

THE FUTURE

Now that I have completed the Life Overlooked project with one group of elementary students, I would ideally like to bring it to other TDSB schools and expand the model to work for high school students as well. The Ontario Arts Council offers grants to artists interested in working in the schools and I could continue to workshop this project with the ultimate aim of creating a curriculum model that could be used by teachers at a variety of levels to blend arts and science in an engaging way. The overall structure of the course described here would be maintained, but I would have to modify the art forms we use based on which instructors are available and, as I already mentioned, increase the overall number of workshops to give students more time, especially at the beginning, to discuss local ecosystems and get to know their animal or plant. I would also focus on common, overlooked species, and not those on Ontario's species at risk list, to encourage more tangible, less abstract, connections. The emphasis of the project needs to be how people, animals and plants share a neighbourhood. I want the students to come to understand the different ways we're implicated in each other's daily lives.

BIBLIOGRAPHY

Almond, D. (2000). *Skellig*. New York, NY: Yearling Books.

Atwood, M. (2004). *Oryx and Crake*. Toronto, ON: Seal Books.

Baldwin, J. (1993) Nobody Knows My Name. New York, NY: Vintage Books.

Bausch, Pina. (2011). Pina, Queen of the Deep. Retrieved from http://dancelines.com.au/wp-content/uploads/2011/04/Pina-Queen-of-the-Deep1.pdf

Baylor, B. (1997). *The Other Way to Listen*. New York, NY: Aladdin.

van Boeckel, J. (2013). At the Heart of Art and Earth: An Exploration of Practices in Arts-Based Environmental Education. Dissertation. Aalto University, Finland.

Bolster, J. (2012).*The Mortal Sea: Fishing the Atlantic in the Age of Sail*. Cambridge, MASS: The Belknap Press.

Burton, N. (2014). A Study of Wonder. Retrieved from https://www.psychologytoday.com/blog/hide-and-seek/201412/study-wonder

Carson, R. (1998). *The Sense of Wonder*. New York, NY: Harper Collins.

Duhn, I. (2012). Making 'place' for Ecological Sustainability in Early Childhood Education. Retrieved from http://www.tandfonline.com/doi/full/10.1080/13504622.2011.572162

Eisner, E. (2002). *The Arts and the Creation of Mind*. New Haven, CT: Yale University Press.

Everden, N. (1989) Nature in industrial society. In Angus, Ian & Jhally, Sut (Eds.) *Cultural Politics in Contemporary America* (pp151-164). New York, NY: Routledge.

Evernden, N. (1992). *The Social Creation of Nature*. Baltimore, MD: Johns Hopkins University Press.

Ewert, A, Mitten, D & Overholt, J. (2014). *Natural Environments and Human Health.* Oxfordshire, UK: Capi.

Fawcett, L. (2002). Children's wild animal stories: questioning inter-species bonds. *Canadian Journal of Environmental Education*, 7 (2), 125-139.

Fawcett, L. (2005). “Bioregional Teaching: How to climb, eat, fall and learn from porcupines.” In P. Tripp & L. Muzzin (Eds.).*Teaching as Activism: Equity meets Environmentalism* (pp.268-280). McGill-Queens University Press.

Ganea, P. (2016). Anthropomorphism: how much humans and animals share is still contested. Retrieved from https://www.theguardian.com/science/2016/jan/15/anthropomorphism-danger-humans-animals-science.

Gaztambide-Fernández, R. (2013). Why the Arts Don’t Do Anything: Toward a New Vision for Cultural Production in Education. *Harvard Educational Review*, 83(1), 211-236.

Gaztambide-Fernández, R. (2013). Thinking Otherwise About the Arts in Education — A Rejoinder. *Harvard Educational Review*, 83(4), 636-643.

Gaztambide-Fernández, R. On Education and Privilege. Retrieved from https://www.youtube.com/watch?v=Slps0ya7ARk.

Greene, M. (1995). *Releasing the Imagination: Essays on Education, the Arts, and Social Change*. New Jersey: Jossey-Bass.

Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40(3), 619-654.

Inwood, H. (2005). Investigating Teachers’ Attitudes Towards Eco-Art. *Education Canadian Review of Art Education*, 32, 41-54.

Kaplan, R & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*. Cambridge: Cambridge University Press.

Kellert, S. (2009). Retrieved from https://www.childrenandnature.org/wpcontent/uploads/2015/04/LWS_Vol1_02.pdf

King, T. (2003). *The Truth About Stories*. Toronto, ON: House of Anansi Press.

Kirksey, E. (2015) Retrieved from https://www.dukeupress.edu/emergent-ecologies.

Kirksey, E. (2015). Art as Multi-species Entanglement: A Conversation with Eben Kirksey about the Multi-species Salon. Retrieved from http://www.synapse.info/blog/art-as-multispecies-entanglement-a-conversation-with-eben-kirksey-about-the-multispecies-salon/.

Leopold, A. (2001). *A Sand Country Almanac*. New York: Oxford University Press.

Lippard, L. Critic Lucy Lippard on Trading Conceptual Art for Environmental Activism. Retrieved from http://www.artspace.com/magazine/interviews_features/qa/lucy_lippard_interview-52240

Lispector, C. (2009). *The Apple in the Dark*. London, England: Haus Publishing.

Louv, R. (2008). *Last Child in the Woods*. Chapel Hill, NC: Algonquin Books.

Macdonald, H. (2016). *H is for Hawk*. Toronto, ON: Penguin.

Macfarlane, R. (2015). *Landmarks*. London: Penguin UK.

Macfarlane, R. (2005). Where the wild things were. Retrieved from https://www.theguardian.com/books/2005/jul/30/featuresreviews.guardianreview22

Mantere, M.H. (1998). Art and the Environment - An Art-based Approach to Environmental Education. In Rubinstein-Reich, L. (Ed.) *Rapporter om utbildning* (pp. 30-35) Malmö, Sweden: Lärarhögskolan.

Marder, M. (2013). *Plant Thinking: A Philosophy of Vegetal Life*. New York, NY: Columbia University Press.

McKibben, B. (2006). *The End of Nature*. New York, NY: Random House.

Meyer, E. (2011). Sustaining Beauty. The Performance of Appearance: A Manifesto. Retrieved from http://www.arch.virginia.edu/lunch/print/territory/sustaining.html

Monbiot, G. (2012). If children lose contact with nature they won't fight for it. Retrieved from https://www.theguardian.com/commentisfree/2012/nov/19/children-lose-contact-with-nature

Mooallem, J. (2014). *Wild Ones: A Sometimes Dismaying, Weirdly Reassuring Story About Looking at People Looking at Animals in America*. New York, NY: Penguin Books.

Mortimer-Sandilands, C. & Erickson, B. (Eds.). (2010). *Queer Ecologies: Sex, Nature, Politics, Desire*. Bloomington: Indiana University Press.

Morton, T. (2009). *Ecology Without Nature*. Boston, MA: Harvard University Press.

Oakley, J. et al. (2010). Animal Encounters in Environmental Education Research: Responding to the "Question of the Animal." *Canadian Journal of Environmental Education*, 15, 86-102.

Orr, D. (1992). *Ecological Literacy: Education and the Transition to a Postmodern World*. Albany: State University of New York Press.

Palmer, J. (2002) *Environmental Education in the 21st Century: Theory, Practice, Progress and Promise.* New York, NY: Routledge.

Phillips, Adam. (2009) *Darwin's Worms: On Life Stories and Death Stories*. London: Basic Books.

Pohjakallio, P. (2010). Mapping Environmental Education Approaches in Finnish Art Education. Journal SYNNYT/Origins, 2, 67-76.

Raffles, H. (2010). *Insectopedia*. New York, NY. Pantheon Books.

Ricou, L. (2014). Disturbance-Loving Species: Habitat Studies, Ecocritical Pedagogy and Canadian Literature. In Kamboureli, S & Verduyn, C. (Eds.) *Critical Collaborations: Indigeniety, Diaspora and Ecology in Canadian Literary Studies* (pp 161- 174). Waterloo, ON: Wilfred Laurier University Press.

Safina, C. (2016). Retrieved from https://medium.com/@carlsafina/why-anthropomorphism-helps-us-understand-animals-behavior-155b69535d17#.6z6wvgb8k

Scarry, E. (1999). *On Beauty and Being Just.* Princeton, NY: Princeton University Press.

Shouse, E. (2005). Feeling, Emotion, Affect. Retrieved from http://journal.media-culture.org.au/0512/03-shouse.php

Smith, G. (2002). Place-based education: Learning to be where we are. Retrieved from http://pdk.sagepub.com/content/83/8/584.extract

Smith, G & Greenwood, D. (2010). A place-based education discussion. *Clearing Magazine*. Retrieved from http://sandbox.clearingmagazine.org/archives/2032

Sobel, D. (2004). *Place-based Education: Connecting Classrooms and Communities*. Great Barrington, MA: The Orion Society.

Sobel, D. (1998). Beyond Ecophobia. Retrieved from http://www.yesmagazine.org/issues/education-for-life/803

Solnit, R. Interview with Rebecca Solnit. Retrieved from http://www.believermag.com/issues/200909/?read=interview_solnit

Solnit, R. (1999). *Savage Dreams: A Journey into the Landscape Wars of the American West*. Berkeley, CA: University of California Press.

Sontag, S. (2003) Frankfurt Book Fair speech.

Sørenstuen, J-E. (2009). Dancing flowers - to discover nature through art and art through nature. Dissertation. Retrieved from http://home.uia.no/janes/Dancing-ny.pdf)

Taylor, B. (2016). On the importance of empathy as craft. Retrieved from http://lithub.com/there-is-no-secret-to-writing-about-people-who-do-not-look-like-you/

Taylor, Paul. (1986). *Respect for Nature: A Theory of Environmental Ethics.* Princeton, NJ: Princeton University Press.

Terpstra, J. (2012). *Naked Trees*. Hamiliton, ON: Wolsak and Wynn Publisher.

York, R. (2014). Reconnecting with Nature: Transformative Environmental Education Through the Arts. Retrieved from https://tspace.library.utoronto.ca/bitstream/.../York_Rachel_A_201411_PhD_thesis.pd...

Wallace, D. (1997). *Infinite Jest*. New York, NY: Back Bay Books.

Wells, N. M. & Lekies, K. S. (2006). Nature and the life course: Pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments*, 16(1), 41663.

Wheeler, S. (2005). *Habitat*. London, Ontario: Brick Books.

Wilson, E. (1986). *Biophilia*. Boston, MA: Harvard University Press.

Wortham, S. (2010). *The Derrida Dictionary*. New York, NY: Continuum International Publishing.