

“IF YOU COULD SEE THE BIG PICTURE”:
CONTEMPORARY CANADA-BASED ARTISTS’ PERSPECTIVES ON THE
ROLE OF AN ENVIRONMENTALLY ENGAGED ARTS PRACTICE IN
FOSTERING CULTURAL TRANSFORMATIONS

by

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Submitted in partial fulfilment of the requirements
for the degree of Master of Environmental Studies

at

Dalhousie University
Halifax, Nova Scotia
December 2019

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In memory of David Risk

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Abstract

Addressing global climate change beyond short-term fixes requires wider cultural change. Artists, as cultural workers, could play a valuable role in attending to questions of social and ecological justice. While there is growing artistic engagement with environmental issues, there are few studies which explore the confluence of art and sustainability within Canada. Through frameworks of *poiesis* and socioecological transformation, I used a mixed qualitative methodology to understand how an environmentally engaged arts practice could exist as a form of environmental education. I interviewed 24 contemporary Canada-based visual, installation, and performance artists to understand how they could foster a sensibility towards sustainability. I used an inductive thematic coding scheme to analyze transcripts and compared emerging themes to current literature in the environmental humanities. Two theories emerged from the data: the environmental artist-researcher-teacher as facilitator of conviviality, curiosity, and care; and the artist as encouraging socioecological transformation through *sympoiesis* or self-making-with-environment.

List of abbreviations used

EE = environmental education

Acknowledgements

I would like to acknowledge the land on which this thesis was created: K'jipuktuk, Mi'kma'ki, the ancestral, unceded and unsundered territory of the Mi'kmaq peoples.

I would like to express my profound thanks to my supervisor, Dr. Tarah Wright, for her endless patience, guidance, and trust in my work, and to my committee members, Dr. Kate Sherren and Dr. Karin Cope, for their continuous support and wisdom. I am also grateful for the helpful guidance and moral support of both the students and faculty of the School for Resource & Environment Studies throughout the stages of this project. Special thanks go to SRES student Mariya Tsehtik, for her participation in my pilot interview. Further thanks go to the staff at the Dalhousie Art Gallery: to Wes, Michelle, Sym, and Peter, who helped me to not only curate, develop and realize an art show from beginning to end, but to develop my own sense of creative language and artistic value. I am humbled to have such a network of friends and family, who over the course of my Master's have lent me their ears, held space for me during my process, and offered me care and confidence. To my mother and father, for their steady support. To Elisabeth, Moe, Ali, Caitlin, Gabe, Sam, Marion, Shilo, Sarah, Nat, Charvel, Lucas, Alex, Steph, Danielle, and Olivia for their presence, strength, and humour. Special honour goes to my dear late friend David, whose endless encouragement allowed me to complete this thesis, and in whose memory this work is a tribute. Lastly, I offer my sincere gratitude to all the artists who participated in this study and transformed my own worldview. This thesis is the result of their insight and generosity.

This research that was funded through an Insight Development Grant from the Social Sciences and Humanities Research Council of Canada (Grant Number 430-2016-00811, Principal Investigator Dr. Tarah Wright). For more information please visit www.dal.ca/sites/esrg.html

Chapter 1: Introduction

1.1 Thesis structure

As an interdisciplinary Master's thesis, this work is presented as a multiple manuscript offering. As opposed to a traditional linear monograph thesis, it constitutes two embedded independent articles intended each for publication, i.e. submission to academic journals. Both embedded papers address a major research question. Respectively, the papers examine artists as environmental educators, and artists as cultural agents fostering changes towards more sustainable futures. In the first embedded paper, we look at how contemporary artists view their arts practice as a form of environmental education (EE). In the second paper, we look at how artists conceptualize their arts practice as a means toward socioecological transformations.

As self-contained units, both articles contain an introduction, a literature review, methods, findings, and a conclusion. There is, for this reason, some repetition of information between the overall thesis introduction, the two papers, and the overall thesis conclusion. To avoid excessive repetition, a wider volume of the overall literature review of the thesis can be found in each respective paper. While the reader is encouraged to read the thesis in a linear manner, both embedded papers may be read independently.

1.2 Overview of problem

We are currently facing a host of global environmental problems that threaten both the human and what eco-philosopher David Abram (1996) termed the “more-than-human” world. Anthropogenic, i.e. human-caused, global climate change has become a serious reality for the planet's biotic communities (Smith & Pangsapa, 2008; Illeris, 2012). Current economic, social, and political models are ill-equipped to support and sustain the planet as it presently exists, as our ecosystems undergo irreversible damage and degradation at an unprecedented rate. Wide-scale youth-led climate protests demanding political action across the globe have become a

weekly ritual – calling for the prioritization of indigenous sovereignty and climate justice, cuts in CO2 emission levels, transitions to a carbon-free economy, and stricter policies to regulate industry (Cannon, 2019; Thunberg, 2019). Drought-scorched crop shortages are forcing subsistence farmers in Central America to migrate north to the United States— an America that recently experienced flash floods from one of the worst hurricane seasons in earth’s history (Levitt et al., 2018). Extreme heat waves overwhelm and exhaust Australia, while record-breaking “Beast from the East” cold fronts sweep the UK— both weather extremes disproportionately affecting the most poor and vulnerable populations. Arctic ice melt is drowning islands across the Pacific oceans of Southeast Asia, several of which are forecasted to be mostly, if not completely, underwater in the next thirty years (Erkens et al., 2015). Meanwhile, wildfires raging across California marred millions of acres of land in 2018 alone, creating a “tinder box” effect in which all of the CO2 released from the fires outnumbered the total emission count of a year’s worth of the region’s electricity use (Levitt et al., 2018).

This apocalyptic script of a planet in crisis evokes a mental scene that suggests we are nearing, if not already in, the midst of a planetary doomsday. As climate change is considered the “defining issue of our time” (United Nations, 2019), the psychological impacts of environmental change, i.e. the rise in conditions including climate anxiety and climate grief, should not be ignored. While technological innovation can help to mitigate the effects of global climate change on the planet’s ecosystems, it is further evident that environmental problems both elicit and demand an emotional—and cultural— response. In fact, it is argued that addressing global climate change beyond short-term technocratic fixes requires deeper cultural change, which itself requires a turn towards more affective modes of knowing, being, sensing and acting in the world (Kagan, 2014; Martusewicz et al., 2015; Myers, 2018; Haraway, 2016).

Simply put, human-created climate change demands human-created cultural change. Given that culture can be both an object and agent of change, it is up to

scholars, cultural workers, educators and activists to invest in work and practices which encourage a re-thinking and re-patterning in our cultural thinking. While education is argued to be humanity's "best hope and most effective means" towards more sustainable and livable futures (UNESCO, 1997), there is simultaneously a need for critical inquiry into how current education models, too, require renewal and revitalization. The fear-inciting delivery of facts, alarming figures, and agitating headlines will do little to address the climate crisis (Anderson, 2015). Paulo Freire (1968, p. 57), argued that "education is suffering from narration sickness", in which "the process of being narrated" becomes "lifeless and petrified." Ecofeminist philosopher Val Plumwood, too, asserted that modern thinking processes rely on a colonial and "monological", or singular, story which encourages human conquest over nature. Fifty years later, dominant educational models continue to emphasize "standards that marginalize cultural and environmental ways of knowing" (Tippins & Mueller, 2010, p. 3), rendering cultural and environmental values "lifeless" both metaphorically and literally.

How can we then move past dominant models and into new modes of knowing? What educational shifts in our ways of thinking and communicating are needed to realize these goals? What incites sociocultural change in response to environmental change? What are the understudied aspects of already-existing, more transformative educational models? As Haraway (2016, p. 35) implores:

How can we think in times of urgencies *without* the self-indulgent and self-fulfilling myths of apocalypse, when every fibre of our being is interlaced, even complicit, in the webs of processes that must somehow be engaged and repatterned?

Questions of how education— in particular, environmental education— can help to engage, transform, and repattern our cultural consciousness towards a more sustainable, livable and just planet constitute the broader research questions of this thesis. Art, as a major cultural force, has been suggested to be one form of informal EE which can foster socioecological change. However, there is little existing research— both globally and in Canada— within the fields of environmental

studies on the potential of how contemporary arts practices could play a role in cultural transformations and climate adaptations. This research seeks to address the current research gap between art and sustainability, by focusing on EE through the first-voice perspectives of current practicing Canada-based artists.

1.3 Background & conceptual frameworks

1.3.1 Anthropocene: Un-settling the “human” epoch

The Anthropocene, or “age of human”, has been put forth as the planet’s current geologic epoch: the boundary event in which human cultures have irreversibly transformed the earth. Similar to sustainability discourses, “Anthropocene” is rapidly becoming the catch phrase of our time (Clammer, 2014; Schneidermann, 2017). The term Anthropocene, originally coined by atmospheric chemist Paul Crutzen (2000) to describe the human-caused impact on the earth since the Industrial Revolution, has grown exponentially in the last two decades (see Figure 1).

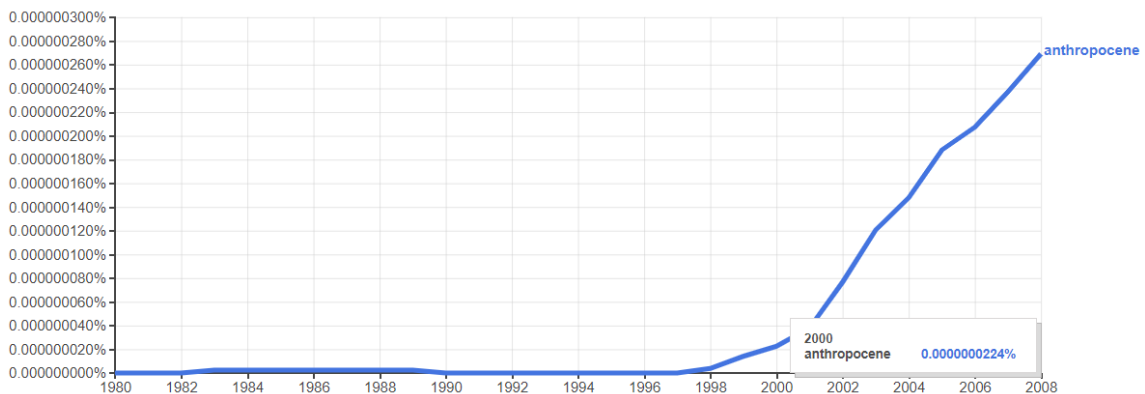


Figure 1. Google Ngram shows an increase use of the word “Anthropocene” in books over time, from its conceptual emergence in the late 1990s (Schneiderman, 2017, pp. 170).

Some scholars argue that the term “Anthropocene” itself is human-centred, with its commemoration of “man” and the implication that “we” are the only planetary beings with agency (Haraway, 2016; Howe & Paladin, 2017). Art critic Kayla Anderson (2015, p. 346) argues that the dominant Anthropocene discourse is

“plagued by narratives that are heroic, solutionist and masculinist, and that re-assert human dominance over the planet.” That said, thinking with the Anthropocene as a departure point can be treated as an opportunity to examine the cultural dimensions of climate change. Anthropocene scholarship gives needed attention to the concepts that have encultured Western nations to live in alienation from what David Abram (1996) termed the “more-than-human” world. While some scholars in the ecological humanities have begun to posit alternatives to Anthropocene, such as Patel & Moore’s (2017) terming of Capitalocene—that the most drastic human-caused changes to the earth have occurred since the onset of global capitalism— Haraway’s (2016) Cthulucene—a “multispecies” take on the power and agency of the non-human world—or Myers’ (2017) Planthroposcene—that humanity is profoundly reliant on and in an interplay with the plant kingdom—there remains a major opportunity for scholars, activists, and cultural theorists to critically examine the *anthropos* in question. Anthropocene thinking beckons a needed scholarship in contemporary cultural studies, encouraging both a working with and beyond our newly-named era; a looking behind and under current models and discourses in order to conceptualize alternative futures for humans and the near-nine million species with whom we share the planet.

1.3.2 Western cultural thinking

Anthropologist and philosopher Gregory Bateson famously said: “The major problems in the world are the result of the difference between *how nature works, and the way people think*” (Borden, 2017, p. 89). The “way people think” which Bateson refers to is context-specific, and largely a Western colonial philosophical paradigm. Plumwood (2003, p. 63) described our “colonial and centric relationships” as particularly dangerous wherein: “humans are seen as the only rational species, the only real subjectivities and agents in the world, and nature is a background substratum that is there to be exploited.” The cultural changes advocated for in this thesis are thus situated specifically within a Western and settler colonial cultural context.

In an article on the “arts of sustainability” scholar John Clammer (2014) cites philosopher Roberto Unger (2001) in his summary on how culture can be both an object and agent of change, arguing that: firstly, while social structures do shape culture, structures *can* change as they are not concrete; secondly, society is constantly changing and in “a process of becoming”; and thirdly, social alternatives come from the imagination.

Cultural changes towards more sustainable and livable futures rely on a re-imagining and changing our collective cultural myths, those which dictate and ironically sever our culture’s relationships with land (Cronon, 1996; Clammer 2014). Scholars name several major discourses—what Illeris (2012, p. 83) calls “truth regimes” and “master-narratives”— which dominate cultural thought and keep humans conceptually severed from the more-than-human world (i.e. the “natural” world). Particularly, critical and post-structuralist scholars discuss the importance of transcending the mind-body dualism that is culturally engrained and upheld across Western cultures (Coatzee, 2018; Patel & Moore, 2018). Drawing from Val Plumwood’s *Feminism and the Mastery of Nature* (1993), ecojustice scholars Martusewicz et al. (2015), highlight the ways in which the Cartesian “split”, i.e. dualistic thinking, has hierarchically ordered the world, in which Enlightenment philosopher Rene Descartes famously pronounced the hierarchy of mind over body and matter. Martusewicz et al. (2015, p. 93) note several kinds of dualistic thinking which inform “discourses of modernity”, the cultural worldviews which “create our modern, taken-for-granted value-hierarchized worldview, including anthropocentrism, progress, individualism, rationalism, [and] mechanism”. They argue that dualistic pairs privilege certain concepts over others: what Plumwood (1993) called hierarchized or “centric thinking” (see Figure 2).

man	woman
reason	emotion
culture	nature
mind	body
activity	passivity
thought	matter
separate	connected
European	barbarian
civilized	primitive
human	animal
rationality	animality
self	other

Figure 2. Examples of dualistic thinking patterns, in which certain concepts (left) are privileged over their binary counterpart (right). Adapted from Val Plumwood's *Feminism and the Mastery of Nature* (1993, p. 43).

As a result of dualistic thinking and reasoning, the body is left undervalued, and spiritual, affective, and emotional intelligences are eschewed by a logic of binary reasoning. These essentializing discourses eclipse diverse ontologies, including indigenous belief systems, culturally situated practices of the global south, and embodied and experimental forms of knowledge production (Shiva, 2015).

Alternative learning processes are reduced to a predominantly dualistic understanding of the world: in which rationalism, a veneration of scientism, and a total reliance on technology have come to dominate everyday life (Clammer, 2014, p. 66). The othering of self and culture from nature, paradoxically, becomes naturalized in our cultural conditioning.

1.3.3 Environmental reparations as cultural re-narrations

Gayá and Philips (2016, p. 804) suggest that in order to transform encultured ideas, we must create new narratives, in which we can “connect ecological issues with the emotional, relational, moral and spiritual dimensions of human experience”.

Eerstman and Wals (2013), too, posit that to effectively address global sustainability challenges, humanity needs to expand our predominantly logical and linear ways of knowing with more presentational, embodied and sensory means.

These “other” narratives work in a “state of discerning and creative openness to alternatives”, innovatively challenging hegemonic stories by offering *counter-stories* to them (Gayá & Philips, 2016). Counter-narratives are then the antidote to Freire’s idea of “narration sickness”, as they challenge “discourses of modernity” and offer up new kinds of relations between oneself and the wider-than-self world. Counter-narratives include a telling of both the history and the future, acknowledging the injustices of the past and present, resisting reductive modes of binary thinking, while offering more hopeful and livable alternatives to current capitalistic tropes of conquest, endless growth and progress.

Part of the task in “repairing” the colonial wounds and the re-telling of stories involves a re-conceptualizing of “environment” itself. In her writing on the confluence of environment and social justice, environmental justice theorist Giovanna Di Chiro (1996, p. 302) criticizes traditional environmental arguments for placing society/nature and urban/wild “as hostile dichotomies”. She instead advocates for thinking more “ecosystemically”: a revisioning of environmental stories to include more social justice considerations, arguing for a representation of nature as that which is inseparable from “community, history, ethnic identity, and cultural survival, which include relationships to the land that express particular ways of life.” Martusewicz et al. (2015, p. 57), too, note that the ecological crisis has cultural and social roots, arguing that ecological problems, including species extinction, soil loss, water contamination, and pollution, can be linked to problems generally associated with social injustices, i.e. racism, sexism, and poverty.

Many theoretical positionings have been put forth in an effort to deconstruct current conceptions of environment, particularly within the realms of post-structuralist ecocriticism (Seymour, 2012). In his famous thesis on “Mind and Nature”, Bateson (1979) advocated for cultural shifts towards a sensibility to the “pattern that connects” culture to nature— an idea on which Sacha Kagan (2010, p. 4), builds in his advocacy for an “aesthetics of sustainability”. Kagan (2014)

describes the need for “cultures of complexity”: those which have the ability to perceive patterns which connect self to other, i.e. the “connections, commonalities, shared properties between different elements of reality and different levels of reality, at different levels of abstraction” (Bateson, 1979, quoted in Kagan, 2010, p.4).

The concept of “naturecultures” has also been introduced as a way of synthesizing the idea that “nature and culture are so tightly interwoven that they cannot be separated” (Malone & Ovenden, 2016). Indigenous activists, scholars, and decolonial theorists point to the ways in which the classification and separation of nature is a Western cultural construct, further emphasizing that local and indigenous understandings of land, place, and nature precede and exist outside of colonial definitions, hence arguing for representation and resurgence of indigenous ontologies (Tuhiwai Smith, 1999; Simpson, 2014). In their advocacy for a critical urban environmental pedagogy, Bellino & Adams (2017) argue against neoliberal definitions of nature, and instead seek to reframe environment to “include the human aspects of urban environments, incorporating the built and social components” as a means to better involve the lived experiences of urban and inter-city populations.

Queer ecologists reframe environment through linking feminist and queer theory with eco-criticism, through interrogations of “what counts as natural/unnatural” (Seymour, 2012). Environmental historians Patel & Moore (2017, p. 43) envision “reparation ecology” in which there can be an undoing of the “violence of abstraction that capitalism makes us perform every day”, characterized by equitable distribution of care, land and work. Donna Haraway (2016) argues for sympoiesis, or “making-together-with-environment”, rather than “autopoiesis” (self-making), the self-producing system of unsustainable economic production in which we currently live. Haraway describes sympoiesis as a relational ontology, as the dynamic interplay and the generative “becoming-with” of humans, plants, matter, and other critters. Similarly, scholar Sacha Kagan (2014, p. 464) argues for

autoecopoiesis, literally: self-making-with-environment, advocating for a system change towards “psychic systems and social systems [which] construct themselves in open communications with their environments”. (An elaboration of these concepts is found in Chapter 3).

There are clearly many current theoretical efforts to address the Western divide and cultural alienation from nature. Scholars have taken on the task to repair constructs around nature, through acts of re-narrating the environment to better include human aspects of social justice, without perpetuating the human-nature hierarchy. To re-frame environment as one of “hybridity, continuity and kinship” (Plumwood, 2003, p. 60) as opposed to essentialist definitions of environment as mere resource, or a peripheral and perfect “wilderness”, could be considered the most critical goals of a contemporary and transformative environmental education.

1.3.4 On the role of transformative environmental education

Val Plumwood (2003, p. 67) argues that an ecological sensibility and deep sensitivity to land rely on the “ability to relate dialogically to the more-than-human world, a crucial source of narratives and narrative subjects defining the distinctiveness of place”. Paulo Freire (1968) similarly emphasized that education must exist as a dialogical form of learning, wherein there exists a mutual learning process; the educator poses critical problems for inquiry through dialogue and conversation as opposed to traditional monological or one-directional “bank account” models of teacher-student learning, in which the learner is reduced to an inert recipient of information (Freire, 1968). Advocating for *praxis*, i.e. the applied union of theory and practice, Freire noted that education must be a form of cultural action. Through this, the student develops a sense of their own agency, and can realize self-transformation while simultaneously engaging with wider-than-self transformations, i.e. within one’s wider social and ecological communities.

Environmental education could draw influence from Freire's pedagogy, showing potential to exist as forms of cultural actions toward sustainability (Silo & Khudu-Petersen, 2016; Sauv , 2011). However, like traditional education models, there are many EE models based on what Freire criticized as unconscious and inactive, or what Kapoor (2010, p. 1035) calls a "consumptive-materialistic-atomistic orientation" towards nature, in which the planet is reduced to that of separate things and parts, as opposed to the relationality within and between humans and other, organic and inorganic, matter and life (Di Chiro, 1996). EE models of the earlier decades (i.e. 1970s and 80s) typically fell within a framework of empirical study, in which the student focused on observed phenomena. There remained the neglect of the intersection of sociocultural aspects of ecology, as in, the relationship between nature and the "lived body" as informed by race, gender, and class (Payne, 1997; Martusewicz et al., 2015). Earlier and more established models have tended to fragment and reduce nature to that of pure observation, which implicitly continues to position humans as outside of nature (Sauv , 2011). Traditionally, much of the discourse surrounding EE has been technocratic, in its encouragement of studying and classifying nature "as background, periphery, or instrument" (Plumwood, 2003, p. 63) in order to serve predominantly human interests, largely ignoring the sociopolitical dimensions of sustainability (Sauv , 2011; Pavlova, 2013; Martuzewicz et al., 2015). Martusewicz et al. (2015) and Sterling (2001) argue that many forms of EE continue to align with a mainstream neoliberal educational agenda, accommodating ideals of individualism, competition, and progress. Sterling also notes, however, that EE can, alternatively, be a form of transformative education and challenge existing paradigms. In a review of fifteen different "currents" or branches of EE, Sauv  (2005) noted that EE can manifest as many different models based on different discourses- some of which are conservation-based, others around sustainable economic growth and development, while others still take on a broader view of education and are defined as holistic or intersectional in their more radical positionings of "environment". In short, some EE models exist as form of "greening capitalism", while other forms serve as a model for transformative education (Pavlova, 2013, p. 669).

Haraway (2015) suggests: “if we really engage in storytelling as a *sym-poietic* practice, which is propositional and invitational, then we have a chance for re-worlding”, here alluding to “worlding” as another concept currently favoured by environmental humanities scholars. Originally coined by Heidegger (1927), “worlding” is described by Palmer & Hunter (2018) as “a particular blending of the material and the semiotic that removes the boundaries between subject and environment”. This removal of the divide between self and nature opens up the possibility of transforming habitual ways of thinking and being in the world. Worlding can be understood, then, as a process in which the individual co-emerges with the world, “an embodied and enacted process” in which the whole-person self transforms with the world (Palmer & Hunter, 2018). There is the need for an EE that can allow individuals and the communities of which they are a part to feel both responsible for and capable of responding to environmental change. Donna Haraway’s (2016, p. 74) advocacy for “cultivating response-ability” is resonant here, in which she calls for a collective “praxis of care and response... in ongoing multispecies worlding on a wounded [earth]”. In other words, engaging with and attending to the ethical and political obligations within the web of relations is considered fundamental to both self and socioecological transformation.

In her writings on the intersection of embodied knowledge, performance, and pedagogy, Coetzee (2018) advocates for “modes of learning that celebrate the experiential, expressive, tacit, visual, visceral, multisensory, spatial, temporal, affective, somatic and unruly”. More recent currents of EE such as ecojustice (Bowers, 2001; Martusewicz et al., 2015), ecopedagogy (Gaard, 2009, p. 326), and art education for sustainable development (Illeris, 2017) are more closely aligned with that which inspires an ethos of worlding, i.e. the co-emergence of self and the possibilities of alternative futures. Interestingly, these intersectional models of EE tend to be more informal, affective, experiential, dialogical, and expressive learning processes.

As a conceptual framework, this thesis therefore advocates for forms of transformative EE that offer a framework which focus on the liberatory processes

of self-transformation. It looks to EE as a praxis of care and cultural action; to forms of EE which are sym-poietic, inextricably linking self with world.

1.3.5 On the role of artists in EE

The Arts, as a major cultural force, could be vital to long-term socioecological and cultural changes. According to arts researcher Nicholas Lampert (2013), the artist often plays the role of organizer, communicator, and translator of knowledge into visual, multi-sensory, and emotional languages within communities that are both seeking and adapting to change. As Canadian arts researcher Beth Carruthers (2006, p. 6) puts it: “The role of artist as catalyst, critic, and educator is hardly a new development.” Packalén (2010) argues that artists have the ability to communicate ideas, visions, and existential experiences in a way that traditional formal education cannot. The Arts can arouse emotion and create empathy, which is considered an essential component to cultural change (Bertling, 2015; Gaya & Philips, 2016). Anderson (2015, p. 346) argues that art— particularly that which is “critical, conceptual and speculative”—can enable “non-instrumental” thinking, which opens up the space for imagining radical futures.

Contemporary arts practices could constitute a form of EE that is well-equipped to present affective and sensory modes of engagement and learning processes. (Gayá & Philips, 2016; Martusewicz et al., 2015). El-Geretly (2000, p. 80) describes art and the creative process as “an epistemological system, capable of achieving what the conventional educational process fails to achieve, with its distrust of dealing with intuition and emotion.” The Arts have a great potential to encourage a “re-seeing” of the environment in human societies, by offering alternative accounts of environmental histories and decolonizing stories of nature, land, and place (Plumwood, 2003). Australian environmental theorist Martin Mulligan (2003, p. 280) described artists as “engaged in an exploration of the dialogical interaction between people and the land”, in ways which could transform and more deeply ground settler society. As counter-narrators, artists can offer new connections and social imaginaries, conjuring up new ways of thinking and acting in the world.

Despite their centrality in cultural change and social justice, methodical studies have only recently begun to emerge of how the artist's practice, that is, "the Arts" in any of its many expressions, may be intrinsic to environmental awareness, policy change, and education. Educators, scholars, scientists and artists are only beginning to thoroughly and collaboratively research how arts-based informal education could be a major force in transformative education and cultural change (Lampert, 2013; Wright & Kent, 2015; Demos, 2016; Silo & Khudu-Petersen, 2017). This gap in the scholarly literature has been verified by both scholars in art education and scholars in EE. Graham (2007, p. 376) argues that mainstream education, including art education, largely omits ecological issues, which effectively "neglects the potential of art to educate and encourage active engagement with ecological concerns." Similarly, within the dominant discourse of Education for Sustainable Development, there is an apparent over-focus on "scientific and ethical demands", and neglect of the "aesthetic and artistic dimensions" (Illeris, 2017, p. 3). Clammer (2014) points out that art has been largely left out of sustainability discourse, with the exception of some conversations around architecture and design, arguing further that scholars across disciplines have largely neglected how artists can mobilize massive social movements towards long-term political change.

While there is growing collective artistic engagement with contemporary global environmental issues, there are few in-depth studies examining how artists are fostering socioecological transformations both globally as well as within the geographic context of Canada. This study therefore looks to focus on the role and agency of contemporary artists, as cultural workers, in fostering an ecological sensibility, in catalyzing cultural change, and in imagining more sustainable futures. In particular, we look at how contemporary artists working within Canada are engaging with socioecological questions through their arts practice.

1.3.6 On the need for poetics in EE research

EE frameworks such as ecopedagogy and Art Education for Sustainable Development (Illeris, 2012) focus on the needed union of *theory and practice* in order to effectively foster ecologically sensitive individuals who can respond to major environmental concerns (Gaard, 2009; Illeris, 2017). However, I argue that there remains a general absence—and therefore great potential—for what Canadian arts educator Rita Irwin (2004, p. 28) calls “a thirdness, an in-between space that exists between and among categories” in her framework of a/r/tography. Embracing a togetherness of inquiry (i.e. action research), teaching, and art-making, Irwin’s pedagogical framework has gained status in Canada as an arts-based research methodology, in which the artist simultaneously becomes researcher and teacher, completing the three-fold role of Artist-Researcher-Teacher. The “third other”, based in Aristotle’s three modes of knowing, is *poiesis*, the needed layer in order to move beyond the dichotomous tensions between *theoria*—the theory, research, philosophies, and reasons behind the work—and *praxis*—the teaching, learning, actions and interactions of the work. As the Greek root of both poetics and poetry; *poiesis* is the literal translation of making: it is the art itself; the methods and materials. Smailbegović (2015, p. 105) describes *poetics* as a “chiasmic site that moves between the material and the semiotic” without abandoning either concept. In other words, poetics is the inter-mediary between matter and meaning. As the third pillar, alongside theory and practice, *poiesis* offers an opportunity and agency for the artist, as maker, to shape and mould change.

Martin Mulligan (2003, p. 280) argues for “disrupting the colonial legacy with a poetic politics”, emphasizing the need for a language of emotions as much as the intellect as a means towards fostering empathetic engagements with the environment. Similarly, we argue for moving both with and beyond a dialogical approach for which Freire (1968), Plumwood (1993), and Rose (2002) advocated, to a multi-logical approach which emphasizes not only the union of theory and practice, but the additional union of poetics.

1.3.7 Positioning environmental art in the Canadian context

The nationalist history of Canadian art is embedded in a long European colonial relationship and its former membership to the British empire. Canadian landscape configurations continue to influence and become inscribed in “official” Canadian identity and culture. Paintings in early French and English colonial periods were of romantic, exaggerated and pastoral paintings conjured by the artist’s imagination (Forkey, 2012, pp. 74). The goal was to evoke a unique branding of the land: after the British conquest, to impress aristocrats, attract settlement and tourism by promoting a distinctly “northern” British North America (Forkey, 2012, pp. 75-77). British military artists took great heed to paint colonial landscapes to suit official narratives of Canada, erasing and eschewing the realities of cultural assimilation, genocide of indigenous peoples, and slavery in the Caribbean and South on which the British Empire relied (Forkey, 2012, p. 74). There remains a legacy of this Canadian aesthetic, i.e. artistic renderings seeking to link Canadianness with a “wild” nature devoid of humans.

It is further important to note that while the production and practice of art within indigenous cultures (which span imposed borders/boundaries of present-day Canada and United States) were influenced and transformed with European colonial contact, the histories of indigenous art-making are neither an adequately recognized part of nor completely “outside” of the officiated “Canadian Aesthetic” (Forkey, 2012). While art-making has been an inseparable part of daily life for first peoples for millennia— both pre and post European contact— cultural practices were heavily sanctioned and outlawed in early colonial periods and continue to present-day attempts by the Canadian government to assimilate indigenous people and erase First Nations, Inuit, and Metis identity and self-governance (Tuhiwai Smith, 1999).

Efforts to decolonize art-making, re-narrate nationally-imposed Canadian branding of a “wild” nature, and re-examine indigenous-settler relationships are central considerations to the work of many contemporary Canadian artists who are

responding to land and environment through their practice (Dickenson, Maracle, & Fontaine, 2017; Nurning-Por, 2018). For example, the collaborative works of the arts collective PA System and Inuit youth arts collective Embassy of Imagination examine the ways in which Canadian mainstream landscape art exist that silence the histories and lived experiences of indigenous, Inuit, and Metis communities. Figure 3 shows the group's ongoing project and installation, in which a ballcap is pictured casting a shadow over a famous Group of Seven landscape painting. The exhibition's accompanying text reads:

"The hat obscuring Lawren S. Harris's painting belonged to our late friend, Aoudlalloo "Aoudi" Qinnayuaq, from Kinngait (Cape Dorset), Nunavut. Aoudi was 15 when he took his own life in the spring of 2016. He is not a tragic character or a generalized statistic; he is a cherished friend, son, and community members. Aoudi was a young artist with perseverance and resilience, who jiggled with great rhythm, and whose gentle heart could move mountains. Canadians have an obligation to ensure that all youth, despite geography, culture or socio-economic background, are supported to live self-defined and meaningful lives. Harris's northern landscapes continue to shape a national narrative that silences the experiences of Inuit communities. It's time to confront the authority and privilege of settler perspectives, and listen to those at the centre of the continuing injustices of colonization."



Figure 3. "Towards Something New and Beautiful + Future Snowmachines in Kinngait, 2017", an installation by arts collective PA System & Embassy of Imagination at Art Gallery of Ontario.

Unlike the pastoral, romantic or wild scenes typical of early Canadian paintings, many contemporary artists creating works with an environmental axis instead tend to seek to re-populate emptied landscapes, discussing the social dimensions of environment and sustainability, and recognizing an active relationship between humans, place, and nature (Dickenson et al., 2018; Nurming-Por, 2018). This dialogue suggests a thinking that seeks to resituate humans as within ecosystems, addressing the Western "conceptual split" (Patel & Moore, 2017) between humans, nature, and the "place" in which all species— human and more-than-human— intricately inhabit.

1.4 Methodology

1.4.1 Methodological frameworks

The research methods for this project relied on a mixed qualitative methods approach. The main data analysis method is based around inductive thematic coding, a commonly used analysis method in which themes which run through the data are identified and coded by the researcher (Guest, Namey, & Mitchell, 2013). However, given that both the art itself and the reflections artists gave about their work exist as stories, I also used narrative analysis in order to draw out and highlight the stories artists relayed about themselves, their artwork, and their environmental connections (Guest et al., 2013). Visual support, i.e. images and footage of artists' work, was further used as both reference point throughout the data collection process and in the presentation of results. Data collection and analysis drew from contemporary ethnographic modes of inquiry, particularly in terms of understanding artists' processes. This included some researcher-immersion with artists, through visiting studios, attending and observing environmental arts workshops, and visiting curated environmental exhibitions. Finally, the research drew in part from phenomenological inquiry, which David Seamon (2000, pp.158-159) describes as investigation into "any object, event, situation or experience that a person can see, hear, touch, smell, taste, feel, intuit, know, understand, or live through". The research aligns with an understanding of lived-in and embodied experiences of individuals in the world, and thus seeks to position itself with phenomenology as an interpretive analysis of the perceptions, feelings, and lived experiences of environmentally-engaged artists in relation to their insights around how their arts practice could foster socioecological change (Latour, 2004; Guest et al., 2013).

1.4.2 Scoping the arts & environmental arts practices

Much like the term sustainability, a working definition of “the Arts” risks ambiguity. The Arts, in any of its many expressions, could refer to fine art, visual art, craft, literary arts, performing and dramatic arts, circus arts, graphic arts, fashion, decorative arts, and so on (Wright & Kent, 2015). There is no universal definition for art. As art critic Denis Dutton (2006, p.367) writes:

Art is not a technical field governed and explained by a theory, but a rich, scattered, and variegated realm of human practice and experience that existed before philosophers and theorists. It is a natural, evolved category, which means that it should not surprise anyone that it can have such a wide-ranging and comparatively open definition.

In order to scope this research project, I focused on contemporary artists who self-identified as having a primarily visual (ex. sculpture, photography, painting, drawing, printmaking, mural-making), performance (visual arts with elements of sound and/or drama), and/or installation arts practice. This includes artists focusing on conceptual (ideas-based) work as well as multi-disciplinary visual artists, i.e. those working with and across several media. This study therefore largely leaves out performing arts, literary art, digital arts, graphic arts, decorative arts and applied arts (fashion, architecture, etc.), however by no means does this study conceptualize the Arts as not including these media, but rather delimited the study to these aspects of the Arts for practical reasons.

Importantly, this study focuses on artists whose work may also be described as “social practice”, which Pablo Helguera (2011) describes as socially engaged art practices which are dependent on other people in addition to the artist-instigator. The artist as *social practitioner* explores questions which more traditionally exist in the fields of sociology or political sciences, through the medium of their art. Social practice in “green” or environmentally-responsive art is thus a departure from earlier forms of “land art”, such as the large-scale forms of environmental arts practices of the 1970s which were typically dominated by male artists and tended

to drastically alter landscapes as a part of personal creative process (Thebault & Upper, 2010). Suzi Gablik (1991), in her book 'The Re-enchantment of Art', argues that the distinction between land art and eco-art can be attributed to the influence of modernism on the former and postmodern theory on the latter. While modernist artists see their work as means of self-expression, postmodern artists often use their work to address existing historical, cultural, social, and political paradigms (Efland, Freedman & Anderson, 1996). Consequently, eco-art cannot be defined by the use of a particular medium or style but rather by the artists' intent and artistic practice. Building on concepts of social practice and eco-art, this work thus defines the artist whose work is responsive to and interdependent with social and environmental others (i.e. the artist's process or artwork has a defined socioecological axis) as an *environmentally engaged artist*. Keywords and themes used to identify artists through artist statement searches and recruitment letters included: bioremediation, climate change, decolonization, earthwork, ecological justice, environmental communication, environmental racism, feminist/queer ecology, human-nature relationships, socioecological issues, and sustainability.

1.4.3 Research Ethics

The study required review from the Dalhousie Research Ethics Board (REB), as it involved an interview process with adult self-identified artists who are employed to practice, share and discuss their work and artistic process. The research received approval under REB file #2017-4397 in January 2018. The Research Consent Form may be found in Appendix A.

All artists gave prior informed consent to participate in the study, to be audio-recorded for the interview, to be identified in their study by their name as a professional artist (given the identifiable information they give about their artwork and practice), and for the usage of direct quotations and photos of artwork with proper credit. All photos in this manuscript are used with permission of the artist participant. There was minimal risk involved in participation of this study, as there was no perceived physical or psychological harm involved in this study.

Emotionally heavy themes (i.e. climate crisis, species loss, land dispossession, environmental degradation) sometimes arose in the interview discussions, often leading to emotionally charged responses by the artist participants themselves.

1.4.4 Data collection & analysis

Data collection relied primarily on a non-probabilistic snowball sampling and purposive sampling technique to identify the study population. Atkinson and Flint (2001, p. 2) describe snowball sampling as being based on an “assumption that a ‘bond’ or ‘link’ exists between the initial sample and others in the same target population, allowing a series of referrals to be made within a circle of acquaintance.” The arts community exists and functions through these bonds, through networks of art institutions and organizations, artist-run centres and galleries, as well as collaborative works and curated shows. For research which seeks to reach a specific demographic with very specific criteria, Creswell (2014, p. 189) suggests that snowball sampling is the most appropriate means for recruitment, arguing that “purposefully selected participants best help the researcher understand the problem and the research question”. If the study is “primarily explorative, qualitative and descriptive” then this method may offer practical advantages (Atkinson & Flint, 2001, p. 2). Snowball sampling involved a review of artistic and environmental networks across the nation, combined with rigorous outreach. This method may also be called multistage or clustering (Creswell, 2014), in which artists were contacted via outreach with art institutions, organizations, and individuals who could provide names, groups, and contacts of individuals who could be interested in participating in the study.

While the title of artist is flexible, for our study we selected individuals who self-identified as current professional artists, wherein at least part of their work and income is presently based around artmaking. Further, our criteria allowed for emerging, mid-career, and established artists, based on Canada Council for the Arts’ (2017) criteria for visual artists which is defined by: having some form of specialized training, recognition from peers, time commitment, and a history of

presentation or publication. Artists were selected if at least one body of work exhibited “an exploration of socio-ecological relationships between people and place”—however this itself is working definition and was reflexive and adaptable. Works which critically examined themes of human-nature relationships, climate change, ecology, land-based processes, and environmental justice were the focus. All artists invited to participate in the study were contacted via email with an invitation letter. Artists who were interested in participating would then respond to the email, and we would arrange a time to talk either over phone, Skype, or in-person where geographically possible.

I interviewed 24 currently practicing professional artists based across Canada. Interviews took place from May-August of 2018. A map of artists and their location may be found in Figure 9 (Chapter 3). A list of the artist participants and their media may be found in Table 1 (Chapter 2).

Interviews ranged from 30 to 90 minutes in length, for a total of 30 hours of audio-recorded interview data. All interviews were then transcribed via the Transcribe Wreally (2018) platform from audio to typed text. Transcripts were analyzed and inductively coded for emerging themes using NVivo 12 qualitative data analysis software (McLellan et al., 2003). Identified themes were then compared to current literature in the fields of sustainability education, ecocriticism, and environmental humanities, in order to support and strengthen the findings. This research thus sought to both draw from and build on current scholarly theoretical engagements with art and environmental studies.

1.4.5 Statement on researcher positionality

Given that the nature of this work is highly exploratory and interpretive, the researcher herself holds a great deal of decision-making power. Recognizing one’s positionality through employing *reflexivity* is one of the core characteristics that defines qualitative research (Creswell, 2014, p. 185). This means the researcher should regularly reflect on how their role, background, culture and experience—

including gender, race, class, ability and language— may shape interpretations, themes, and meanings ascribed to the data.

I am a researcher, arts collaborator, writer and performer, with a background in humanities and social sciences. As a junior scholar, this was my first experience with an in-depth research project with a methodology of such rigor and depth. I was interested in collecting the narratives and stories artists tell through their work, and then (re)telling these stories through a lens which reflected the themes found throughout the data, i.e. with curiosity, care, and an ethics of conviviality (see Chapter 2.1.3 for an elaboration of this term). My background in sound arts encouraged active listening, my introspective nature a [hopefully] careful reflexivity, and my interdisciplinary scholarship a worldview that acknowledges the multiple realities and embodied experiences of others (Latour, 2004). However, I recognize that certain aspects of my identity create unconscious biases for me in my research and environment. For example, as a settler of European descent with English as my native language, I come from a place of racial and class privilege in which my experience and philosophical understanding of land and territory is unconsciously defined by a Western colonial concept of place.

As the primary investigator, I, Jennifer Yakamovich, was responsible for the research and writing the manuscript. Dr. Tarah Wright of the Dalhousie Environmental Sciences Department was the thesis supervisor and provided guidance, revision, and feedback. Dr. Kate Sherren of the School for Resource and Environmental Studies was a committee member and provided guidance and feedback on the thesis. Karin Cope of the Nova Scotia College of Art and Design was an external reader and provided guidance and feedback on the thesis.

Chapter 2: Embedded paper #1

Care-full, convivial, curious: Weaving Canadian artists' conceptions of art as a form of transformative environmental education

2.0 Introduction

The conceptual rise of the Anthropocene, or “age of human”, points to the reality that climate change is driven by human activity (Clammer, 2014; Schneidermann, 2017). Specifically, scholars argue that while human cultures have been altering and adapting the environment for millennia, the unprecedented rate of environmental change is driven by global capitalism, a fossil fuel-dependent system based on unlimited growth, consumption, and production (Patel & Moore, 2017). Classical free market economic policies have been largely formulated on colonial extractive ideologies of progress and infinite expansion, a logic which is imbued in the social fabric of most modern cultures (Patel & Moore, 2017).

The advocacy for “system change, not climate change”, a slogan adopted by an emerging social movement of youth-led climate activists across the globe, highlights the idea that “culture” is both the object and agent of change (Cannon, 2019; The Culture Group, 2014). Addressing global climate change beyond short-term technocratic fixes requires deeper cultural change (Martusewicz et al., 2015). If there is a chance for a planet on which human and what eco-philosopher David Abrams (1996) termed the “more-than-human” communities can continue to live and thrive, there is a need for alternative discourses and cultural narratives which can collide with, become entangled in, and ultimately shift current ideologies which define unsustainable modes of thinking and acting (Kagan, 2014).

Art, as a major cultural force, has been argued to be central to needed cultural changes, in which creative arts practices can both work with and extend beyond current techno-scientific approaches to addressing climate change (Gayá & Philips, 2016; Martusewicz et al., 2015; Rathwell & Armitage, 2016). To quote decolonial

thinker Walter Mignolo “It is necessary to introduce new concepts, but it is necessary also to work with existing ones in order to de-naturalize them. You work from given concepts and look behind and under them” (Gaztambide-Fernández, 2014, p.202). Education is argued to be humanity’s greatest hope for both working with and introducing new concepts: telling new stories and generating new imaginaries towards a paradigm and future in which there is a planetary possibility of what Sacha Kagan (2014) calls “cultures of sustainability”. Education can be an important means towards cultural reparations: decolonizing Western ontologies, disrupting neoliberal discourses, and healing the ideological wounds that have contributed to cultural dissociations from the environment (Freire, 1983; Illeris, 2017; Silo & Khudo-Petersen, 2016; Simpson, 2014). The scholarly urging and cultural imperative for both art and education show vast potential for exploring the intersection of art and environmental education (EE) in addressing the current climate crisis.

We adopt a sociocultural approach to understanding both climate and cultural transformations in relation to EE within the emerging and intersecting disciplines of environmental studies, education and the humanities. Particularly, we are interested in understanding how cultural workers— those who are critically examining relationships between culture and nature in the Anthropocene—are adopting processes of social transformation through ecological engagements (Osborne, 2017). Based in Paulo Freire’s (1968) assertion that education must be a form of cultural action, we draw from a number of EE processes and praxes which focus on the intersection of self and ecological transformation, in order to respond to climate and environmental change. There are few existing studies which take an intimate and in-depth approach to documenting how *artists*, as cultural actors, understand their role in these transformations, both globally and within the context of Canada (Kent & Wright, 2015). In this study, we were interested in understanding how practicing Canada-based visual artists are conceptualizing the role an arts practice could play in transformative EE.

2.1 Background

2.1.1 Nature-culture divide

Many cultural theorists argue that the “modernizing projects” of Western philosophy and Enlightenment thinking have, ironically, impaired our cultural abilities to address the current climate crisis (Haraway, 2015; Patel & Moore, 2017). Ecofeminist philosopher Val Plumwood (1991) described this thinking as a cultural conditioning of a dualistic “divided ontology”, in which nature and culture are categorized and polarized (Alhomoud, 2018, p. 11). The “conceptual split” has origins in French Enlightenment philosopher Rene Descartes’ avowal to separate the mind from matter and body, which has informed dichotomous thought systems characterizing what ecojustice scholars call “discourses of modernity” (Martusewicz et al., 2015). These discourses are the engrained beliefs informing the myriad of Western cultural assumptions that rationalize exponential growth and naturalize a carbon-dependent economy. As Patel & Moore (2017, p. 2) state, “it’s easier for most people to imagine the end of the planet than to imagine the end of capitalism”. This reasoning further enforces binary thinking, i.e. the categorization and polarization of certain concepts, which enforces a privileging of centric concepts and a “backgrounding of the other”: other non-human species, other marginalized cultures, and other non-Western belief systems (Plumwood, 1991; Martusewicz et al., 2011). Martusewicz et al. (2015) point particularly to the “centric” belief system based on anthropocentrism (humans over nature), androcentrism (man over woman), and Eurocentrism, (the “West” over the “rest”). As cultural theorist Walter Mignolo (2017) argues: “the transplant of the Renaissance uni-versity to the New World implies silencing, disavowing, shattering down, demonizing co-existing ways of knowing, sensing, believing and living/being in the world” (Coughlin, 2017).

Many scholars, artists, educators and activists are reconceiving ways in which there can be change through cultural re-narrations (Haraway, 2015; Gaya & Philips,

2016; Patel & Moore, 2017). Political ecologist Tracey Osborne (2017, p. 845) advocates the political ecological adoption of both Anthropocene and Earth Stewardship frameworks, in order to better join social and environmental justice, i.e.: an “intimate integration of science and socio-natural systems”. Other scholars argue further still for a need to move beyond the mere integration of systems, calling for both socioecological reparation and total system transformation (Kapoor, 2010; Klein, 2014).

Cultural theorists, activists, and institutions argue that political change is preceded by cultural change, which itself requires cultural action (Mulligan, 2003; Klein, 2014; The Culture Group, 2014). Put simply, anthropogenic climate change demands anthropogenic change, or *cultural change*— which itself requires transformations in learning processes. Actions towards cultures of sustainability are therefore dependent on cultural workers who can enable these processes (Kagan, 2014). Gayá and Philips (2016, p. 804) suggest that in order to revitalize other modes of knowing and realize cultural transformations, we must create “counter-narratives”, which can “connect ecological issues with the emotional, relational, moral and spiritual dimensions of human experience”. Eerstman and Wals (2013), too, posit that to effectively address global sustainability challenges, we need to expand our predominantly logical and linear ways of knowing with more presentational, embodied and sensory means. There is a need for a multiplicity of approaches in re-narrating dominant patterns and assumptions which characterize current cultures of unsustainability (Kagan, 2014).

2.1.2 Transformative environmental education

Environmental education carries vast potential to change cultural norms and attitudes towards oneself and the environment. However, much of the dominant discourse surrounding EE has historically been technocratic, serving predominantly human interests, and takes a purely natural sciences approach, ignoring cultural, social, political and economic dimensions (Pavlova, 2013;

Martuzewicz et al., 2015). A divided ontology between humans and nature continues to influence present-day EE learning models, in which culture and nature, arts and science, and mind and body, remain compartmentalized in the social consciousness (Martusewicz et al., 2015).

In his advocacy against what he describes as the dominant neoliberal “banking” educational model, wherein the student exists as an inert and enclosed recipient for deposits of information, Paulo Freire (1968) argued that education must instead exist as a cultural action. Freire argued that cultural action requires cultural workers who, as educators, can facilitate the development of a critical consciousness in the learner through dialogue, praxis (i.e. informed action), self-awareness, an emphasis on lived experience, and metaphor. A dialogical method is proposed by Shor & Freire (1987, p. 11) as a means towards social transformation, defined as a mutual learning process by which the teacher poses critical problems for inquiry through dialogue and conversation instead of through traditional modes of teacher-to-learner lecturing. Kagan (2014), citing Morin (1992), also describes the need for dialogics over a singular linear logic, in order to better foster a “sensibility towards complexity”, i.e. the multiplicity of worldviews, in order to create “cultures of sustainability”. Deborah Bird Rose (2015, p. 131) further advocates for the deep embracing of dialogue:

Once we start to embrace dialogue, we become ever more aware that monologue stifles knowledge of connection and disables the possibilities whereby “self” finds its own meaning and purpose through entangled encounters and responsibilities with “others.”

Education for sustainability (Efs) and education for sustainable development (ESD) advocate for transformative learning towards equitable communities, based on the development of an innate respect for social and ecological others (Pavlova, 2013). There is a surge in what Silo & Khudu-Petersen (2016, p. 8) describe as “postmodern constructivist learning processes” in more recent EE models which, through they are culturally situated forms of exchange, better engage the student as an ecological self with the socioecological environment. EE movements such as

ecopedagogy, drawing heavily from Freire’s advocacy for critical pedagogy as “an inclusive and liberatory praxis”, bring in “a necessary unity of theory and practice” in order to realize the confluence of social and ecological justice (Gaard, 2009, p. 326). An ecojustice framework similarly addresses the interdependent relationships between social justice and ecological well-being through three “strands”: cultural-ecological analysis, revitalizing the commons, and engaging the imagination (Bowers, 2001; Martusewicz et al., 2015).

In her writing on land as pedagogy, Nishnaabeg scholar Leanne Simpson (2014, p.10) advocates for land-based education— one that is defined by indigenous-led resurgence, a reclamation of story-telling traditions, and reciprocity with “all elements of creation including plants and animals” — as a means towards moving from colonial educational structures which produce “the capitalistic consumer” to an intelligence that instead fosters “the cultural producer”. Bartlett *et al.* (2012) propose a “weaving” of indigenous knowledge and science through the perspective of “two-eyed seeing”, that is, using multiple knowledge systems to approach environmental learning. Indeed, Kagan’s (2014) intentionally pluralized “*cultures of sustainability*”, or Tsing’s (2015) advocacy for “open-ended assemblages”, or “polyphony”, point to the need for a multiplicity of praxes or educational approaches that tend to the diverse, place-based, culturally-situated, and lived experiences of varied communities across the globe. While theoretically and epistemically unique, the common thread between various streams of critical EE is a pull towards learning processes which better value the learner as a whole-body being who can, through self-transformation, engage with wider-than-self transformations, i.e. within the wider socioecological community in which one is situated (Shor & Freire, 1987; Illeris, 2017; Kagan, 2014; Sauv e, 2011).

2.1.3 Informal education as transformative EE

Walter (2009, p. 19) describes sites of radical and transformative EE, which are also rooted in Paulo Freire’s (2005) concepts of “conscientization” of self and the environment, as mostly “informal, nonformal, and incidental” forms of learning

processes. While there is an ever-growing body of literature on newer currents of environmental education in formal academic, curriculum-based settings (Sauvé, 2011; Wright & Kent, 2015), there is less work on the role of informal education, i.e. the learning one acquires in developing attitudes, values, skills, and knowledge through daily experience such as through family, kin & neighbours, work and play, the marketplace, the library, the community centre, or popular media (Sterling, 2014; Fincher & Iveson, 2015). Informal education could further be compared to the definition of “basic education” or “lifelong education” provided by UNESCO (2000, p. 9), which is the “cultural heritages or the knowledge and skills capital that every person harbours”. Informal education includes the educational skills, values, and languages which continue into and throughout adulthood, and are “compatible with the everyday practices of life and with the values of communities” (UNESCO, 2000, p. 9).

In their encouraging of an “ethics of care” in urban environments, Fincher & Iveson (2015, p. 23) argue that informality can foster what can be described as “an environment of conviviality” which supports a “purposeful sharing of activities by individuals who may not necessarily be known to each other; interactions which are usually fleeting rather than sustained, and which are conceptually at some distance from sharing identities.” Conviviality, itself hinting at the Spanish notion of *convivencia* or “shared living”— a “with-ness” and cohabitation that can exist across cultural difference— is an emerging concept in cultural theory (Illich, 2001; Wise & Noble, 2016). In an essay on the conviviality between humans and soil, Given (2017, p. 128) describes conviviality as “a framework for understanding the richness of interaction and interdependence of all the human and more-than-human actors that generate the lively world we inhabit and share”. Paul Gilroy (2006) describes convivial cultures as those which have introduced counternarratives to hegemonic discourses and cultural hierarchies, which perpetuate settler colonialism and racialization. Wise & Noble (2016) describe conviviality as an ontological point of access into understanding “the relation *between* spaces and temporalities”, suggesting that it can enable “everyday negotiations with difference and practices

of accommodation; of belonging as practice; the embodied, affective and sensory dimensions of lived difference”.

Achieving the confluence of biodiversity, cultural diversity, and human well-being, i.e. the “trptych” of sustainability goals (Kagan, 2014), requires EE practices which can address both social inequality and ecological loss through critical self-realization (Freire, 1998). Where formal educational models alone cannot transform the self, the social, and the environmental, there is great potential in looking towards more informal and convivial learning processes as a means towards cultural change. One of the most pressing tasks in education is to continue to transform education models towards those that foster themes of connections, curiosity, and care— as well as to better locate those in which these processes are already existent.

2.1.4 Looking to the artist in transformative EE

The importance of an integrated approach, i.e. EE methods that seek to transform both the individual as an “ecological self” and the world, is the conceptual underpinning of this study. Paleolithic cave paintings show that humans have, for millennia, been engaging with environment and climate change through art (O’Hara, 2014). More presently, contemporary artists, as cultural workers, are important agents in critically engaging with and responding to environmental concerns. Educators, scholars, scientists and artists are beginning to thoroughly and collaboratively research how arts-integrated education could also be a major force as cultural actions towards socioecological transformations. (Carruthers, 2006; Lampert, 2013; Silo & Khudu-Petersen, 2017; Roosen, Klöckner & Swim, 2018). As cultural producers, artists could play a major role in transformative EE; as stewards of what Haraway (2015, pp.50-51) calls modes of “reworlding, reimagining, reliving, and reconnecting with each other, in multispecies wellbeing.”

The presentation and showcasing of creative art projects commonly fall under the canopy of informal learning. Many artists work within the context of informality as a mode of sharing knowledge, such as through public, participatory, and community-based art projects (Illeris, 2017). The Arts are, for this reason, increasingly used as tools in social innovation strategies such as poverty alleviation, health promotion, and social justice initiatives (Martusewicz et al., 2015). In researching contemporary participatory art projects in Denmark, Illeris (2017) examines how “art education can favour a sense of interconnectedness between the individual, the social and the environmental dimensions of being”. Drawing largely from Felix Guattari’s *The Three Ecologies* (1989) in his terming of three ecological registers: human subjectivity, social relations and the environment, Illeris (2017) argues for art education for sustainable development (AESD), in which a deeply “ecological person” can be developed through the arts, and quoting Braidotti (2013, p. 49-50), there is “an enlarged sense of inter-connection between self and others, including the non-human or ‘earth’-others, by removing the obstacle of self-centred individualism.”

EE frameworks such as ecopedagogy and AESD focus on the needed union of *theory and practice* in order to effectively develop and transform ecologically sensitive individuals who can respond to major environmental concerns (Gaard, 2009; Illeris, 2017). However, we argue that there remains a general absence—and therefore great potential—for what Canadian arts educator Rita Irwin (2004, p. 28) calls “a thirdness, an in-between space that exists between and among categories” in her framework of a/r/tography. Embracing a togetherness of inquiry (i.e. action research), teaching, *and* art-making, Irwin’s pedagogical framework has gained status in Canada as an arts-based research methodology, in which the artist simultaneously becomes researcher and teacher, completing the three-fold role of Artist-Researcher-Teacher. The “third other”, based in Aristotle’s three modes of knowing is *poiesis*, the needed layer in order to move beyond the dichotomous tensions between *theoria*— the theory, research, philosophies, reasons behind the work— and *praxis*—the teaching, learning, actions and interactions of the work. As

the Greek root of both poetics and poetry; *poiesis* is the literal translation of making: it is the art itself; the methods and materials. Smailbegović (2015, p. 105) describes *poetics* as a “chiasmic site that moves between the material and the semiotic” without abandoning either concept. In other words, poetics is the intermediary between matter and meaning. As the third pillar, alongside theory and practice, *poiesis* offers an opportunity and agency for the artist, as maker, to mould change.

Irwin describes the union of poiesis-theoria-praxis as the “multilectical”: like the “dialectical perspective”, in which two “categories of thought exist in equal relationship to one another” (Irwin, 2004, p. 28). The inclusion of *poiesis* introduces “more complex intertextuality and intratextuality of categories”. In the analysis of this study we draw from this conceptual framework Artist-Researcher-Teacher in order to contextualize the artist, who as a cultural worker and informal educator, can enable cultural actions through the triptych of poetics, inquiry, and education.

2.2 Methods & need for study

Similar to earlier and more established models of EE approaches and strategies, literature shows that research in EE has relied largely on quantitative methods to measure their efficacy. According to Hart & Nolan (1999), more than 90% of research in EE throughout the 1970s used quantitative methods. This continued to be the trend— and remains influential in present-day research— up until the late 1990s when research on EE began to expand from mere “cause-effect” quantitative methods used to understand “cognitive-affect-behaviour relationships”, to include the study of peoples’ stories around environmental feelings, values, and actions, thereby demanding more qualitative and descriptive approaches (Hart & Nolan, 1999, p. 8). Program evaluation in education studies have similarly followed a predominantly quantitative tradition of using measurable curricular aims and outcomes (Farenga & Ness, 2005)— likely informed by culturally engrained ideas wherein that which is not measurable or quantifiable is implicitly valued less.

Where creative artistic processes tend to neither be formal nor quantitative, it makes sense to apply a qualitative methodology which can draw from *poetics* and a narrative approach often used by artists themselves, in which researchers can “elicit... stories and the importance of those stories” (Guest et al., 2013, p. 10) that artists tell about themselves and their work. Indeed, scholars and cultural critics have argued for a “literary turn” in ethnographic and qualitative research, towards “not only a politics but also a poetics” (Price, 2011, p. 358). In her examinations of literary descriptions of change in the Anthropocene, ecocritic Ada Smailbegović (2015, pp. 96-98) advocates for a *poetics of description* “as a mode of affective and aesthetic amplification” and means to “attend to the changes in climate and other human-induced planetary transformations.” Where the *counter-narrative* is considered a major component to cultural transformation (Gaya & Philips, 2016), there is a need for *poetics* in both research and practice; a need for exploratory, descriptive, narrative, and phenomenological approaches in academic literature to document the processes of environmentally-engaged cultural workers (Seamon, 2000; Guest et al., 2013).

The current poetic and artistic gap present in EE literature informs this study (Wright & Kent, 2015). Given the lack of current scholarly literature on the intersection of EE and contemporary arts practices both globally and within Canada, we looked to explore the work and practices through documenting the first-voice perspectives of current artists who are working at the cross-section of environment through their creative arts practice.

We sought to understand how the work of contemporary Canada-based environmentally-engaged visual, installation and performance artists may be aligned with a form of EE— one that responds to climate and “Anthropocene” transformations through their cultural actions. The questions that drove this study were: how can contemporary visual artists’ work, as a form of EE, foster a more sustainable and ecological sensibility? In particular, how do artists themselves conceptualize their role as cultural agents and educators towards sustainability? In

order to explore these questions, we documented the perspectives of current practicing artists by conducting 24 in-depth semi-structured interviews with artists over the summer of 2018 (Table 1.).

Artist name	Medium	Geographic location
Alexa Hatanaka (on behalf of Embassy of Imagination)	Public murals, sculpture, printmaking, social practice	Kinngait (Cape Dorset), Nunavut
Ayelen Liberona	Dance, film, photography	Toronto, Ontario
Ayoka Junaid	Natural dyeing, printmaking, ceramics, conceptual	Dartmouth, Nova Scotia
Camille Turner	Performance art, conceptual, social practice	Toronto, Ontario
Carrie Allison Goodfellow	Multidisciplinary arts, beading, social practice	K'jipuktuk (Halifax), Nova Scotia
Charmaine Lurch	Sculpture, painting	Toronto, Ontario
D'Arcy Wilson	Performance art, conceptual	Comer Brook, Newfoundland
David Ellingson	Photography	Cortes Island, British Columbia
Diyan Achjadi	Painting, drawing, printmaking	Vancouver, British Columbia
Grace W Boyd	Ceramics, sculpture	Winnipeg, Manitoba
Jay White	Drawing, performance, interdisciplinary	Bowen Island, British Columbia
Jeneen Frei Njootli	Performance, sound arts, fashion, multidisciplinary	Teechik (Old Crow), Yukon
Jessica Winton	Sculpture, conceptual, installation	Halifax, Nova Scotia
Joyce Majiski	Printmaking, installation	Whitehorse, Yukon
Julie Rene de Cotret	Performance, installation, curation	Guelph, Ontario
Karen Abel	Multidisciplinary, conceptual	Toronto, Ontario
Marlene Creates	Installation, photography, performance	Portugal Cove, Newfoundland
Nicole Dextras	Installation, performance, multi-media	Vancouver, British Columbia
Peter von Tiesenhausen	Multidisciplinary, sculpture, installation, conceptual	Demmitt, Alberta
Sarah Peebles	Installation, multidisciplinary	Toronto, Ontario
Sandra Semchuk	Photography, film	Meadow Lake, Saskatchewan

Sharon Kallis	Natural dyeing, weaving, installation, sculpture	Vancouver, British Columbia
Teresa Posyniak	Painting, sculpture	Calgary, Alberta
Terri Drahos (on behalf of Uncommon Common Arts)	Installation, curation	Wolfville, Nova Scotia

Table 1. List of artist interview participants, their main media, and place of residence

Through non-probabilistic snowball sampling methods (Cresswell, 2014), we identified environmentally-engaged artists practicing across Canada i.e. through locating artist statements on artist websites, curatorial essays, gallery catalogues, outreach at art institutions and residencies, and word-of-mouth. Participants were selected for interviews if they identified as an emerging, mid-career, or established artist working within the geographic context of Canada. Criteria for being an artist included: receiving some form of specialized training, recognition from peers, time commitment, and a history of presentation or publication (Canada Council, 2017). In this study we focused on visual artists (ex. sculpture, ceramics, painting, drawing, printmaking, mural-making), including performance and installation artists (i.e. multi-disciplinary visual arts with elements of sound and/or drama) who identified at least one body of work as dealing with environmental questions.

Interviews took place over phone or in-person where geographically possible, and ranged from 30 to 90 minutes for a total of 30 hours of audio-recorded interview data. Interview questions were semi-structured, and centred around the artists' current work, discussing the social and environmental themes of the artwork, understanding their ideas around what art can uniquely offer as a learning process and mode of knowing, exploring their beliefs around whether their arts practice could facilitate cultural change and/or generate new imaginaries, understanding their methods of collaboration, as well as hearing their suggestions for continued work which brings together art and EE. Interviews were then transcribed to text by the lead researcher and analyzed using NVivo 12 qualitative data analysis software (McLellan et al., 2003). We drew from a range of qualitative methodologies, namely a mixed methods approach of inductive thematic coding in order to identify

emerging themes in the interview data, as well as contemporary ethnographic, phenomenological and narrative analysis in order to bring artists' voice to identified themes and shared meanings (Seamon, 2000; Guest et al., 2013). It is worth noting that while this research project focused on identifying common themes which ran through the interview data, there remain major variance in the artists' practice, experiences, and knowledge systems. Given the unique sociopolitical and pluralistic context of Canada as a country made up of dynamic, shared, and contested many histories, geographies, communities, and cultures, artistic reflections on artmaking in relation to place, space, and land were unique to their lived experience (Lampert, 2013; Martin, 2010).

2.3 Findings

2.3.1 Overview

Three major themes emerged from this data, which, drawing from Irwin's (2004) a/r/tography framework, concurrently position artists as researchers and informal teachers, driving culture at a local, place-based level through their creative practices. Neimanis, Asberg, & Hedren (2015, p. 82) argue that the micro-practices of "experimental (artistic, community-building) collaborations with more-than-human natures" happening across the world can address the cultural alienation from nature by "(re)instating an imaginary of curiosity, care and concern." In this study we brought our attention to these "micro-practices" within Canada, in identifying how artists *as community-builders*, as cultural actors and environmental educators, can be seen as fostering cultural change through conjuring up new socioecological imaginaries (Neimanis et al., 2015). Interestingly, we found a similar thematic synopsis as Neimanis et al.'s advocacy for "curiosity, care, and concern" emerge from the interview data. However, based on our findings, we argue that *care* itself emerges from an ecological concern, and would add *conviviality* as a key component to an environmentally-engaged arts practice,

finding that “making connections” (conviviality), “asking questions” (curiosity), and “stewarding self and other” (acts of care) were the three key components to the poetics, theory, and praxis of an environmentally-engaged arts practice.

2.3.2 Theme #1: *making connections*

Themes of creating connections, relationships, and associations between the audience and the wider environment—both human and more-than-human— were a common discussion point in how the artists’ practice may be a form of EE. Artists commonly expressed a belief that an arts practice could exist as a mode of environmental learning through making social and ecological connections— as participant artist Diyan Achjadi put it: “showing threads and networks of connections that are larger than oneself”.

For example, Nova Scotia-based beader and visual artist Carrie Allison Goodfellow discussed how her Shubenacadie River Beading Project could help to make connections between her own Cree and Metis ancestry, the local Mi’kmaq community, and the settler communities of Nova Scotia by “relating to the river” as a major watershed, life force, and place of spiritual and ecological significance. Similarly, through her inquiry into coastline plastic wash-up and the resulting experiential installation on the pervasiveness of ocean plastics, Yukon artist and biologist Joyce Majiski described her work as a way to examine “in a global sense, how we’re connected through the ocean in our environment.” Sharon Kallis’ work to facilitate youth to make art with fibres of invasive plant species in Vancouver city parks was described as an effort to “recognize that humans are a part of the ecology and are not separate from it”. D’Arcy Wilson discussed approaching natural-cultural connections from another angle, in which, she ironically comments on Western settler culture’s “often disastrous” relationships with nature through her artistic actions and interventions, pointing to how Western settler-colonial relationships of spectating, capturing and classifying nature further separates oneself from their environment (Figure 4).



Figure 4. Interdisciplinary artist D'Arcy Wilson's *The Memorialist*, an ongoing project exploring questions of nature, Western culture, colonialism and displays of the "wild" through zoological inquiry (photos: Strut Gallery & D'Arcy Wilson).

Like Wilson, other artists alluded to the conceptual split that characterizes Western cultural assumptions. Ayoka Junaid expressed a concern for how “in the West, we do all these sorts of separations around things, and disconnections”. Junaid then described her arts practice as that of storytelling— “the original intent of art”— in which art could exist as a “different place in which people can receive information.” Many participants discussed the importance of making socioecological connections and relations through storytelling and narrative; as theorist Walter Mignolo aptly puts it in his description of *poiesis*: a particular story-maker who, “instead of making a shoe or building a house, [can] ‘make’ a narrative that captures the senses and emotions of a lot of people” (Gaztambide-Fernández, 2014, p. 203). Ayelen Liberona, for example, discussed how her arts practice— which incorporates a blend of movement, film, sound, and environmental anthropology— had become a means to embark on a process of "re-storying our relationship to land and plant sentience." Liberona described the question driving her work as asking: “how can we attune ourselves to be with these beings and create new narratives?... stories that aren't about destruction?” In her reflections on whether she believed her arts practice existed as a form of environmental education, Liberona gave an emphatic “absolutely”, describing the belief of an ecologically-attuned arts practice as a way to tell stories:

...that might help a younger generation grow with a deeper, more attuned level of relationships that allows for the land and the beings of the land—the plants and the animals— to have a sentience and therefore have relationships. And *that* is environmental. It's understanding that nature is not 'over there, outside.'

Jay White shared a similar sentiment, viewing the role of an environmentally-engaged artist as that of the storyteller; the connector between humans and other species.

For me it's like: telling stories may be speaking on behalf of other entities or other beings on this planet that can't speak for themselves. That's what I would say. So you could call that environmental education or you could call it "being an intermediary for other-than-human-beings that can't speak for themselves."

Many participants discussed how their artwork, whether a painting, sculpture, a conceptual performance, or an interactive installation, was a means to point to the connections between an embodied self and other, between human and the wider-than-human, and between scientific inquiry and artistic translations. Painter and sculptor Teresa Posnyak described her current work on painting microscopic plankton as a study which could reflect wider environmental connections. Posnyak gave the example of how when scientist, environmentalist and playwright Alana Mitchell told her that, through the process of photosynthesis, plankton were responsible for over half the earth's oxygen, she was "opened up to a whole concept of the connection between what's happening in the ocean, what's happening on land, and the consequences of human activity upon our ability to breathe." Describing this realization as a "very profound connection", Posnyak then reflected on the role of art in allowing one to perceive the links between phenomena and illustrate them in new ways:

I look at it all as quite a rich tapestry. Art is a way of weaving things together, and connecting things. I am always looking for connections. Not only between people but between people and the environment, between aspects of the environment.

She went on to describe the parallels between art and science, as well as the ways in which art, as a language, could offer new ways of understanding phenomena:

...We really believe we are investigators. We have a lot of commonalities with scientists and I think what people need to realize and that we should never forget, is that art has the freedom to go where science cannot follow. Because art is not restrained by scientific protocol, this gives us incredible freedom to create the lateral and alternate connections that I'm talking about, which in turn can trigger new insights. This quite often happens when you combine disparate ideas, images, elements and then you create new realities.

The intention of showing connections through artistic acts of re-narration underpinned many of the artists' work and process. This finding mirrors that of Hawkins et al. (2015, p. 339), who in their own examinations of current environmental artworks found the "practices are able to make connections between humans and humans, humans and nonhumans, and between the matter and forces 'out there' in the world and those more personal and local imaginaries." It is here that the artistic practice becomes a rich site of conviviality, what Ivan Illich (2001) described as "autonomous and creative intercourse among persons, and the intercourse of persons with their environment". Furthermore, an emphasis on making connections through storytelling and counter-narrative— for example through Wilson's and Junaid's ideas— further mirror Gilroy's (2006) description of convivial culture as that which is characterized by *counternarratives* to hegemonic discourses of settler colonialism and racialization.

The emphasis by artists to allow one to see relationships in new formulations is reflective of an ethic of conviviality— what Hawkins et al. (2015) describe, citing Paulson (2001, p. 112), new "types of encounter, new modes of relation, new political practices... and new knowledge-making practices." David Abram's (1996, p. ix) position that "humans are tuned for relationship" is similarly resonant, in which "we are human only in contact, and conviviality, with what is not human". Where the artists we interviewed often described their work and process as a means to make connections with, for, and about the environment, we argue that they are striving to address the split between nature and culture.

Efforts to decolonize art-making, re-narrate nationally-imposed Canadian branding of a “wild” nature, and re-examine indigenous-settler relationships were central considerations to the work of several of the contemporary artists that we interviewed in this study. Unlike the pastoral, romantic or wild scenes typical of early Canadian paintings, contemporary artists creating works with an environmental axis instead tend to seek to re-populate emptied landscapes by implicating *anthropos* (i.e. bringing human communities back in to the equation), recognizing the active relationship between humans, place, and nature. This active dialogue between human sphere and biosphere suggests a thinking that seeks to resituate humans within ecosystems and address the “conceptual split” (Patel & Moore, 2017) between humans, nature, and the “place” in which all species—human and more-than-human—intricately inhabit. Artists are weaving new narratives- both physically, i.e. through the making of material artworks, as well as psychologically, in which, as Ayelen Liberona put it, art can create new “neurological pathways in the brain that can offer other possibilities for both healing trauma and for re-patterning our relationships”. Art could then be understood as a remedial process in addressing the rupture between humans and nature.

2.3.3 Theme #2: *asking questions*

Teresa Posyniak’s statement above that “[as artists] we really believe we are investigators” is a meaningful link into the second emerging theme: in which artists discussed the importance of their work as a means of exploratory inquiry, i.e. asking open-ended questions about the environment, one’s values, and one’s relationship to environment. Diyan Achjadi emphasized the importance of art as fostering curiosity and wonder, suggesting that “art should ask questions, and not provide answers.” She then expressed a hope that her artwork “provoked moments of wonder or questioning” in which the viewer could potentially ask: “why is this here? And what is that? what does that make me think of?”

Artworks as being a form of research and inquiry, (i.e. informed by the artist's own curiosity around environmental questions) was a common reflection found in our interview analysis. Raising provocative questions is considered one of the foundations of Freire's (1968) advocacy for dialogical education and cultural action. The theme of art as enabling dialogue and conversation was expressed as the main means by which an artists' practice could be a form of EE. Carrie Allison Goodfellow spoke to the theme of dialogue in terms of her work, which has manifested as public beading and conversational circles. Carrie described her work as a means toward opening up dialogue and "soft" debate:

I think it can educate people, or provoke conversations that can help an activist's cause in some way, shape or form. And that's the kind of work that I'm interested in, and that I can actually do comfortably: making work that reflects my research.

Nicole Dextras, a visual artist who creates speculative environmental films and stages public interventions through human-plant interactions, similarly called her creative methods of cultural action to be more of "a softer approach" to engaging the public. Describing her public work as "a good way to at least start a conversation" with a wide and versatile audience, she contrasted it to the traditional "hard approach of the environmental movement", in which organizers "step on the soap box and tell people what they think." Jessica Winton similarly said of her practice:

It's not predictive. The questions that I'm asking are questions. They might come up with the same questions. They might come up with different questions... That's exciting because it's a translation through the work.

There was a strong belief that an artist's own inquiry was unrestricted and non-didactic; that the questions prompting the artists' work could result in a set of different questions in the viewer. Sarah Peebles voiced a similar sentiment in her reflections on her work with *Resonating Bodies* (Figure 5), publicly installed "sensory bee cabinets", in which participants are invited to engage with native bees through audio-visual experiencing. Peebles emphasized:

Everyone is going to take something different from it. So I don't feel I need to be too prescriptive. If someone just walks away appreciating the bees as artists, that's okay with me, because it's a beautiful experience. And if someone walks away with a whole set of questions such as: "Where are they getting the resin in this neighborhood? What kind of pollen do they bring back? From which flowers? At what point in the year? Are they actually pollinating those flowers? I wonder if global warming is affecting what I'm going to see from year to year?" That's not an unrealistic bunch of questions for an entirely different person to take away.



Figure 5. "Sonic Solitaries": Photographs (Robert Cruikshank) from Sarah Peebles' (Toronto) work with *Resonating Bodies*, a series of "sensory bee booths and cabinets" which examine the biodiversity work of native pollinators.

D'Arcy Wilson discussed a recent collaboration of artists, which, while based in and responding to the site of one of the last old-growth Acadian forests of New Brunswick, was described as not really "about" the measurable decline of the province's forest...

...but it *is* about renegotiating my own culture's relationship to nature. And renegotiating how we consider our own place there and how we fit with it and how we interact with it. I hope it's promoting and asking questions about how we interact with the natural world in the constructive and positive way. And can we? So there are no answers to the questions.

Marlene Creates spoke of her ephemeral art pieces which often transpire on the Boreal forest floor, in which "there are no direct messages. I don't want to be prescriptive or didactic... I'm trying to go about it by being poetic." Creates then

went on to discuss how her work stemmed from an innate inquisitiveness she had about nature:

I have this curiosity about our relationship to the physical world, where I ask: *how can we proceed in a way that doesn't harm it?* How can we understand it and appreciate it?... My artwork is just one way to try to deal with it. And never solve it—it doesn't solve any of these questions. It's just a way to sort of delve into them.

Ayelen Liberona equally emphasized that the intention of an artist was not to be a dogmatic voice claiming to fix people. She did, however, point to the ways in which her art practice had allowed her to arrive to a new way of knowing about the environment, “or even asking” about the environment. Liberona stressed: “it’s *because* of the artistic practice that I arrived at the questions that I should be asking”. In particular, she discussed how her arts practice had allowed her to become curious about and more affectively engaged with plant life in her site of inquiry, the field site of an urban savannah in Toronto. Emphasizing that the agency of the artist resides in the questions they can prompt, Liberona described the importance of “dreaming up new imaginaries” and a belief that this imaginative ability was “where artists can really help carve the path to more livable futures.”

In describing her photography series “*the land owns itself*”, which examines conceptual constructs of land with her late partner and creative collaborator, Cree performance artist James Nicholas, participant Sandra Semchuk emphasized that art is a means to open up a space where colonial understandings of land “can be *investigated and glimpsed* in a different way”. Semchuk described this process as opening the possibility of shifting the imagination, or “changing the angle of one's mind”.

The environmentally-engaged artist as an environmental researcher is a key component to how the artist reflects on her own role in facilitating cultural actions. The process of asking open-ended questions through a creative practice was considered the theoretical underpinning to many artists’ understandings of how

their artmaking was a form of EE. Importantly, the artistic process is emphasized as an inquiry that simultaneously exists for both the artist herself and those who engage with the work, in which the research question itself can lead to the viewer's own questions and own conclusion. Environmental art as *research*, then, is largely driven by an approach that is curious, inquisitive, open-ended, and conversational. This parallels Freirian-informed EE frameworks which seek to extend beyond strictly didactic forms of education, and instead encourage dialogical and mutual learning processes in which the educator is simultaneously researcher, politician, and artist. The teacher and student— or in this case artist and viewer— “transform learning into a collaborative process to illuminate and act on reality” (Shor & Freire, 1987, p. 11).

2.3.4 Theme #3: *taking care*

A third emerging theme is related to Shor and Freire's (1987) idea of “acting on reality”: that is, a palpable and practical action. Artists discussed their practice itself as a mode of taking care, or caring for self and other— both human and “more-than-human” others. A number of participants identified their practice with stewardship. As visual and performance artist Jay White put it: “to be sustainable is to be a steward... that's our role, as the watchers, the listeners, the protectors”. In their reflections on how their practice was considered a form of education, artists described their work as deeds, gestures, or actions: performances of care through physical actions with the material world. Artistic acts of care and stewardship resonate with the scholarly adoption of “care” in the environmental humanities. Maria Puig describes care as “a particularly profound engagement with the world” (Van Dooren, 2014, p. 291). According to Puig (2012, p. 197), care is at once *affective, ethical, and practical*.

Artist Sharon Kallis, for example, discussed working with plants and people in city parks for fibre arts programming. She gave the example of stinging nettle: a plant

which has both notoriety as a weed with stinging fibres, and vast creative value as an art crop and natural textiles material. Kallis described how the very act of teaching the community through workshops and plant walks to identify, work with, enjoy and respect nettle, as well as to re-examine the “borderline xenophobia around invasive species”, was an informal but critical learning process. Kallis described her community-based, process-based arts practice of working with plants as a mode of teaching and rebuilding a sense of reciprocity with both the human and more-than-human community; a cultural action in which she and the participants were:

...stewarding, tending, and understanding what we're receiving. It's that kind of giving love and getting love from the land and from the plants. It's trying to shift those barriers of how we think about place and how we take it for granted or just use it and abuse it.

The working-with, processing, creating dyes, and weaving with the nettle becomes a learning process through *affect, ethics, and practice* (Puig, 2012): a means of acting with care on reality. The artistic engagements with the plants are affective: “an embodied phenomenon” in which the artist and audience are learning to be affected by an other through experiential learning; ethical: in that the artist and learner becomes subject to both plant and human “others” through recognizing an obligation to “look after oneself and others”; and practical: in that the intentional planting, taking care of, and tending to other species is a form of practical labour which can transform both self and other (Van Dooren, 2014, p. 291).

Alexa Hatanaka also referred to the arts-informed land-based practices of her work with the artist collective Embassy of Imagination in Kinngait (Cape Dorset), Nunavut, as those of *care* in a threefold sense. For their installation, *Towards Something New and Beautiful + Future Snowmachines in Kinngait*, the artists in the collective— primarily Kinngait youth—fashioned homemade playdough “dream snowmachine” sculptures, cast from aluminum salvaged from the burned remains of the community’s high school (see Figure 6). The sculptures are part of an ongoing project, as both a locus for community engagement and fundraiser for the school

district's Land Program which enables the Kinngait youth to access their land, culture, and knowledge shared by their Elders. The sale of the sculptures allows the youth to purchase actual snowmachines and the project is not considered "complete" until the youth are out on the land being pulled in qamutiit (sleds) by the new snowmobiles. At once practical, ethical, and affective, the project encourages ongoing dialogues around the colonial legacies that continue to sever ties between community and land, while highlighting, as Hatanaka put it, how:

...sitting with your own creativity can create change for yourself and your community; through your art-making, your own hands can allow you to imagine a different future for you and your peers.



Figure 6. Work by Nunavut-based PA System and Embassy of Imagination. Top and bottom left (photos: Wes Johnston): *Towards Something New and Beautiful + Future Snowmachines in Kinngait* at Dalhousie University Art Gallery. Right: "Tunnganarniq": public mural in Ottawa, Canada painted by the Kinngait Inuit youth artists.

The understanding of art itself as both a way of acting on reality and a healing process towards social and environmental justice within communities was a commonly expressed idea. Camille Turner, for example, discussed the work of her performance art group Afronautic Research Lab, which invites the public to critically explore obscured and untold black environmental histories of Toronto through city soundwalks and interactive investigations into public museum archives. Turner described her art, based in social practice, as a means to allow the

audience to “witness themselves; witness their own history in a space of healing.” Care through creativity then becomes a “a vital practice of *critique*” (van Dooren, 2014, p. 293) in which room for questioning, challenging, and a creative imagining of *what else could exist* beyond “assumed categories and frameworks.”

Performance artist Jeneen Frei Njootli similarly discussed the importance of obligation to others through gesture and care, by means of creative interventions in art gallery spaces. She discussed the process of a sound-based performance piece, in which she scattered beads into gold pan-like percussion cymbals, as a means to “give voice” to the beads; to draw attention to the material histories of both Gwitchin beading culture and resource extraction in the Yukon. Calling her artmaking as based in an “ethical practice” of the Vuntut Gwitchin First Nations ethos of care that is “inextricably tied to the land”, Njootli described even the literal sprinkling of beads into the gallery’s floor cracks as a critical action; a metaphorical gesture in which it was, as the artist, “really important to be the one to also do the labour of picking the beads back up.”

Terri Drahos, artistic co-ordinator of an annual outdoor summer-long environmental arts exhibition, *Uncommon Common Art*, referred to the collection of artists’ public pieces—murals, installations, and sculptures placed outside throughout the Annapolis Valley— as a way of “taking care of the land”. Drahos described the diverse artists’ projects as works which tended towards various kinds of care: i.e. protecting the agro-ecological diversity of the county’s rural communities, demonstrating the cultural value of the region’s small farmers, stewarding land through soil health education, and telling environmental histories of the region’s Mi’kmaq and Acadian populations. Through this framing, *sustainability* is conceptualized as a mode of *care*, in that the artists, as public communicators, are thematically expressing a confluence of economic wellbeing, ecological diversity, and social justice. Etymologically, curating (*cura*) means “to take care” (Encyclopædia Britannica, 2011). Where the community of Annapolis is both the curator and participant of the annual exhibition, there emerges the idea

that projects at the intersection of art, sustainability, and environment exist as one of mutual *care*.

Thom van Dooren's (2014, p. 197) suggestion that "placing care at the centre of our critical work might remake ourselves, our practices and our world" bears great meaning for the ways in which environmentally-engaged artistic practices exist as a form of transformative EE. The artist as caretaker: performing acts of affective, ethical and practical care as a means toward cultural actions, is integral to the concept of artist-as-educator.

2.4 Making-doing-thinking: An a/r/tographic framework of understanding

We interpreted the three emerging themes through Irwin's a/r/tography framework, in which the artist is simultaneously artist, researcher, and teacher (see Figure 7). The thematic groupings, based on Irwin's continuum scheme of poiesis-theoria-praxis, include: "making connections"; "asking questions"; and "taking care". Alternatively, the themes are interpreted as conviviality, curiosity, and acts of care. The three modes of knowing—"making-thinking-doing"—exist as the scaffolding for this conceptual framework, in which the three themes exist "not only as separate entities, but also as connected and integrated identities that remain ever present" (Irwin, 2004, p. 28). We found that the environmentally-engaged artist views herself concurrently as artist, researcher and teacher, in that, as Pinar (2004, p. 23) writes on Irwin's framework, the artists are "study[ing] and perform[ing] knowledge, teaching, and learning from multiple perspectives". The environmentally-engaged artist draws connections between nature and culture, conducts arts-based ecological inquiries, and teaches stewardship through acts of care. Much as there is a multilectical relationship within and between modes of thought, there exists an inter/intra-textuality between the three emergent themes.

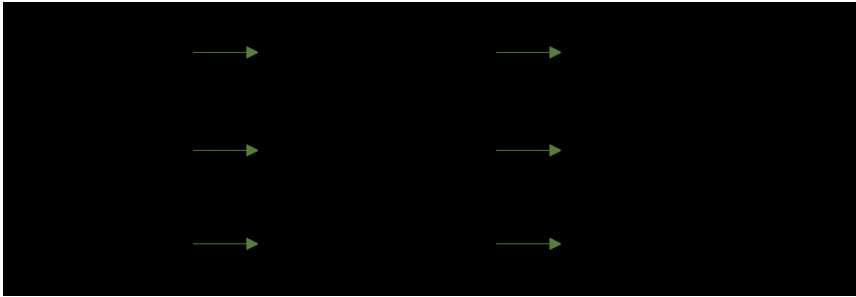


Figure 7. Rita Irwin's (2004) a/r/tography framework of inquiry as applied to Canada-based environmentally-engaged artists. The artist-researcher-teacher, or creative framework of making-thinking-doing can be interpreted through themes of conviviality (making connections), curiosity (asking questions), and acts of care (stewarding/taking care).

Poetics as **conviviality**: The artist, as maker (materially and conceptually), is threading connections. She is fostering an ethics of conviviality, in which the Western conceptual split, i.e. the ontological natural-cultural divide, is challenged through critically evoking a “richness of interaction and interdependence of all the human and more-than-human actors” (Given, 2017, p.128). As narrator, story-maker—“executioner of a particular story” (Gaztambide-Fernández, 2014, p. 202.)— the artist is drawing “patterns which connect” (Bateson, 1979) phenomena even across sociocultural and ecological differences.

Theoria as **curiosity**: The artist, as researcher, is asking open-ended questions which both inform the artist’s preliminary environmental inquiry and the questions a produced and presented artwork itself can pose to the artist’s audience or participants. Through inquiry, the artist is engaging in a deep curiosity about human-nature relationships in which, as Irwin (2004, p. 34) writes on creative inquiry and action research, she “attempts to confront complexity among human relations within their temporal, spatial, cultural, and historical contexts”. This striving to make meaning through inquiry leads to the emergence of transformative practices.

Practical action as **care**: The artist, as teacher, is performing acts of care through affect, ethics, and practice. As a critical action and interaction, care as *praxis*— i.e. the union of theory and practice— is considered a fundamental component to the ways in which the artist sees her work as aligning with forms of EE as teacher, modeler, or leader-by-example (van Dooren, 2014).

2.5 Concluding thoughts

Van Dooren (2014, p. 293) writes: “care-full curiosity opens up an appreciation of historical contingency: that things might have been and so might yet still be, otherwise.” Through their methods, meanings, and interactions, artists are imagining an “otherwise” to the current environmental crisis. Through informal educational practices that are at once convivial, curious, and care-full, environmentally-engaged artists are proposing a future that could be sustainable for both human and more-than-human communities.

When participant Diyan Achjadi expressed the hope that one’s artwork can, “show networks of connections... threads that are larger than oneself”, the artist as a *cultural weaver* becomes an evocative image. Poetics, i.e., the act of making, is a mode of cultural production, both materially and conceptually. Using presentational means to engage the senses, environmentally-engaged artists can help to more deeply connect culture to what participant Peter von Tiesenhausen described as “the colours and the exuberance of the land”: which, as participant Teresa Posyniak puts, “stirs the heart, the mind, the soul” and “triggers complex and fundamental response in humans that relate to many things”. Given that, as participant Sarah Peebles argued, cultures “have evolved to be attracted to art”, artists can provide a different conduit or “one of many paths of connecting”. The artist, as a cultural worker, is weaving a “pattern that connects” nature to culture (Bateson, 1979), which Kagan (2014) argues is needed in order to cultivate an “aesthetics of sustainability” and more critical socioecological consciousness (Freire, 1983; Illeris, 2017). Eco-philosopher David Abram (1996, p. ix) wrote that “the eyes, the skin, the tongue, ears and nostrils – all are gates where our body receives the nourishment of

otherness.” If the senses are the gates to an embodied ecological sensibility, then artists could be considered keyholders to this sensibility. In this study we found that Canada-based environmentally-engaged artists conceptualize their work as a means of EE through creative cultural actions. Artists’ tools, or “keys”— i.e. conviviality, curiosity, and care— reveal a framework for an informal pedagogy for EE. Through fostering an environmental ethics of *making connections between nature and culture* as artist, *asking questions about the environment* as researcher, and *acting on reality by taking care* as educator, artists are re-examining, repairing, and transforming “the modern divides of nature/culture, science/humanities, and matter/meaning” (Neimanis et al., 2015, p. 90). These shifts in thinking are vital components to transformative EE (Kagan, 2014; Martusewicz et al., 2015).

2.6 Implications of study

There is a vast potential for continued research on arts-based practices in environmental work, education, and policy. This study carries significance for policymakers, artists, and researchers alike.

Firstly, environmental workers, policymakers, educators, management, and decision-makers in government climate adaptation programming can recognize the importance of artists as cultural workers. Where the environmental sector has yet to fully consider the cultural and educational impact of visual, installation, and performance artists in environmental work, policymakers can better engage artists’ skills, training, and projects, in climate agendas, creative placemaking and community programs, sustainability education curricula, and cultural funding platforms. This research advocates for artists’ work and inquiry to be at the core of transformative EE.

Secondly, artists can turn to this study as both a theoretical and practical framework in which a creative practice is presented as valuable and viable as a

form of environmental advocacy. Where climate change is considered an increasingly pressing and discussed theme in creative work, the research and thematic framework can provide support and context for artists. It is further intended that this research can serve as a means to connect artists to other practitioners, cultural workers, theorists and academics. Research at this intersection could alleviate the disciplinary isolation often found between artists, environmental scientists and scholars, bridging the needed gap between often-segmented areas of environmental work. Where there can be an implicit elitism and isolation within the arts and humanities, in which the art world tends to cater firstly to its own needs (Kagan, 2014), there needs to be emphasis on more accessible exchange of ideas across disciplines. The artist respondents in this study show a willingness to break barriers of “highbrow” art culture, repositioning art in a democratic sense in order to address major social and ecological issues.

Finally, there should be continued environmental scholarship at the intersection of art and EE. Critical pedagogy, a resurgence in environmental humanities scholarship, and an attentiveness to non-Western knowledge systems are integral to transformations towards more sustainable and natural-cultural orientations. New theories, forms of practice, and modes of enriching current practices can be explored. This study offers an exploratory, mixed methodology for conducting interdisciplinary research that represents the confluence art, education, and environmental studies. As plant studies anthropologist and artist Natasha Myers (2018, p.92) implores: “What matters to this land? Whose cultures, whose natures, and whose stories will get to flourish into the future?” These are the questions which can inform future inquiry and research with trans-disciplinary work with environmental artists— whose stories, now, more than ever, matter.

Chapter 3: Embedded Paper #2

Creative makings-with-environment: Canada-based artists' conceptualizations of the role of art in socioecological transformation

3.0 Introduction

Global climate change has become an increasingly serious reality for the planet, in which unprecedented greenhouse-gas-driven environmental changes are radically altering, shifting, and displacing both human and more-than-human communities (Abram, 1996; Smith & Pangsapa, 2008; Illeris, 2017). Carbon Dioxide levels in the atmosphere have reached a record high in recent years and are predicted to continue to climb (Leahy, 2018). The earth is currently in the midst of what scientists are calling the Sixth Mass Extinction, in which species are dying at a rate 100 times that of a normal rate in geological time (Pimm, et al., 2014; Ceballos, Ehrlich, & Dirzo, 2017). While the United Nations Intergovernmental Panel on Climate Change (UN IPCC) has released the critical declaration that we only have until 2030 to prevent total climate catastrophe, the reality of weather-related wreckage has already created mass numbers of climate migrants, with further-incalculable tolls of “earth others” (i.e. the approximately nine million species with whom we share the planet) (IPCC, 2018; Plumwood, 2006). In the context of Canada, a report released by Environment and Climate Change Canada (2019) is sounding alarm bells across the country, with its stark reminder that Canada is warming at about double the global rate, with the North warming even more rapidly (Mortillaro, 2019).

These climatic realities often leave humanity with environmental anxieties, and in a state of emotional trauma ranging from fear to grief to complete denial (Gibson, Rose, & Fincher 2015). Glenn Albrecht’s stirring definition of “solastalgia”, the

“psychic existential distress caused by environmental change” evokes a melancholy or homesickness for altered human-made place and lost landscapes (Albrecht et al., 2007). There is an equal, if not more dire, need to evoke a consciousness that propels humanity’s thinking through this grief into the future, to speculate possibilities that allow our species to both confront and transcend the grim realities of our time. Resulting cultural and ecological losses speak poignantly to the need for both physical and mental refuge; the need for new frameworks in which we can conceive of hopeful transformations and reparations for multispecies habitation. There is a timely need to imagine, conjure up, engage with and attend to possibilities for futures that are both sustainable and livable.

As cultural workers, artists comprise one group of agents who are said to play a role in fostering connections towards a more environmental consciousness (Braun, 2015; Hawkins et al., 2015). In this paper, we look at how current environmentally-engaged artists working within what in present day is known as Canada see themselves and their arts practice as enabling change towards more sustainable and livable futures. We address the research question by using an in-depth case analysis approach, and conducting in-depth interviews with 24 Canadian artists whose work demonstrates engagement with ecological issues and/or environmental knowledges. Looking to current theory at the intersections of art and anthropology, as well as from current literature in EE and environmental philosophy, we use the conceptual framework of artistic *poiesis* to analyze the artists’ perspectives, concluding that the “small shifts” that artists are “making” are akin to Donna Haraway’s (2016) *sympoiesis* and Sacha Kagan’s (2014) *autoecopoiesis*, and can lead to socioecological transformation in the sustainability movement.

3.1 Background

3.1.1 Anthropocene thinking

While it's clear that humans have had major impacts on the earth since our relatively recent appearance in geologic time, the conceptual rise of "*Anthropocene*" as the slogan for defining the earth's current geological epoch evokes an even more sobering reminder that the planet's total reformation and current ecological crisis is one of the *Anthropos*; that current climate crises are human-bound and human-caused (Gibson, 2015). Often attributed to atmospheric chemist Paul Crutzen in 2000, the concept of Anthropocene was originally coined to describe the scale of effects humans have had on the entire planet since the Industrial Revolution (Crutzen & Stoermer, 2000). While the use of the term "Anthropocene", as appropriately denoting a current geologic time period, continues to be debated by geologists (Schneiderman, 2017; Rull, 2018), the rise of the term has brought many issues to light within academic communities. The resulting Anthropocene scholarship is an opportunity for ecologists, scientists, and humanities scholars alike to deeply re-examine environmental research through a lens of human responsibility.

While thinking with the Anthropocene is a way to illustrate "how we, individually and collectively, are leaving a human signature on our world" (Art Gallery of Ontario, 2018), critics argue that carbon emissions and resulting impacts are disproportionately the responsibility of the those in the uppermost echelons of industry and profit, and that those most implicated in the cause of anthropogenic climate change, pollution, and socioecological loss are not the ones experiencing the greatest weight of its effects (Howe & Paladin, 2017). Howe and Paladin (2017) suggest in their "Lexicon for an Anthropocene Yet Unseen" that the terming of *Anthropos* may still "overtell" a tale of *human agency*, one that suggests that both the burden and responsibility is collectively and equally distributed between all seven billion of the planet's humans. However, this is not the case. Ecological

footprint models clearly show that it is the industrialized, wealthy and well-educated human residents of the planet who are doing the most damage and driving environmental change (Wackernagel & Rees, 1998).

Several alternatives to, or elaborations on Anthropocene have thus been put forth. Patel & Moore (2017, p. 28) propose "*Capitalocene*" given that "capitalism's ecology now affects every tendril of the planet's ecology". Donna Haraway's (2015, p.160) designation of "*Cthulucene*"—derived from the Greek *chthon* or things that dwell in/on the earth— also decentres the anthropocentrism of the term and instead recognizes the multispecies interplay of "dynamic ongoing sym-chthonic forces and powers of which people are a part" and "within which ongoingness is at stake". Plant studies scholar Natasha Myers (2017, p. 299) plays on *anthropocentric* thinking by proposing instead the "Planthroposcene", where she imagines a "way of doing life in which people come to recognize their profound inter-implication with plants". The *cene* suffix, denoting a geological time period, becomes transformed to "scene": a picture in which there is possibility for a narrative of change and "new imaginaries." Zoe Todd (2015, p. 243) advocates for the need to "indigenize the Anthropocene" in her work on decolonizing mostly-white framings of Anthropocene through indigenous counter-narratives, in order to decentre both the human-centrism and Euro-centrism of "the non-Indigenous intellectual contexts that currently shape public intellectual discourse, including that of the Anthropocene".

While the naming and narrating of the earth's current "moment" varies and remains in flux, the common denominator for scholars critically grappling with these cultural questions is the simple, and simultaneously complex fact that current economic, social, and political models are not equipped to support and sustain our ecosystems. In any case, much like other buzzwords of our time, "Anthropocene" has seen a rapid increase in use over the past decade (Schneidermann, 2017) and

will continue to be an important conceptual position in looking at issues of climate change.

3.1.2 On the need for cultural change

Scholars argue that addressing global anthropogenic climate change and environmental problems that have risen in the Anthropocene beyond short-term technocratic fixes requires deeper changes in our ideologies; that is to say, a need for deep-rooted cultural changes (Martusewicz, et al., 2015). To quote anthropologist and philosopher Gregory Bateson: “The major problems in the world are the result of the difference between *how nature works, and the way people think.*” (Borden, 2017, p. 89). The ecological crisis can then be considered a *cultural crisis* in which through the severing and dissociating of culture from nature, people are encultured to think and live in a way that is unjust and unsustainable, creating what Kagan (2014) describes as “cultures of unsustainability”. In her essay on moving towards a “deep sustainability” environmental philosopher Val Plumwood (2006, p. 1) similarly advocated for cultural efforts to “challenge conceptual frameworks and systems that disappear the crucial support provided by natural systems and foster the illusion that our lives are self-enclosed and self-supporting.”

Socio-environmental scientists Tàbara et al. (2019, p. 809) argue that one of the key challenges for what they describe as transformative climate science (TCS) strategies is to move from traditional ways of asking research questions, and require us to move from asking “*what is the problem?*”, to asking the question “*who is the solution?*” and to better understand the role of agency. In other words, the realities of climate change require deeply-rooted cultural change. There are many agents— cultural workers, writers, activists and thinkers— who are engaged in the work of enacting these needed cultural transformations. Such agents are breathing life into new narratives; offering new conceptual frameworks of thinking with, sensing, and knowing environments which can evoke cultural shifts in a climate-changing planet. In her text on “learning to be affected by earth others”, Gerta

Roelvink (2015, p. 57) describes the need to think about the deep social and ecological questions of our time. She writes:

“One answer might be to seek out those who are already transforming their relationships with the more-than-human world, to learn about and tell their stories, and to help multiply, magnify, legitimate and proliferate their practices. If one looks for them, there are many who are engaged in learning from our climate changed earth in such a way that they themselves are transformed and are prompted to create new ways of living with earth others.”

3.1.3 Art as a cultural force

Artists are cultural workers who are engaged in transforming relationships and telling the important stories around climate and environment that Roelvink (2015) refers to (Clammer, 2014; Gayá & Philips, 2016; Tsing, 2015). Art, as a major cultural force, has been argued to be central to an urgently needed change in thinking. John Clammer (2014, p. 66) puts it succinctly in his article on the “arts of sustainability”:

The arts not only provide the material substance of our lives (and incidentally provide livelihoods for many millions), but are also sources of empowerment, identity building, skill development, utopian visions and social and cultural alternatives, and, very importantly, of our fantasy lives; which in turn tell us something important about society.

The role of the artist has been central to social movements and social change throughout history. As Beth Carruthers (2006, p. 6) put it: “The role of artist as catalyst, critic, and educator is hardly a new development.” Artists have the ability to communicate ideas, visions, embodied knowledges, and existential experiences in a way that other traditional forms of communication and education cannot (Foster, Makela & Martusewicz, 2018). The Arts can arouse emotion and create empathy— essential components to cultural change (Bertling, 2015; Rose, 2015; Gaya & Philips, 2016). Graham (2007, p. 374), argues that the artist poses “provocative questions about nature, community, and culture that reflect the complex character of our relationship with the natural world.”

Artists can help identify the many *patterns that connect* nature and culture— what environmental anthropologist Anna Tsing aptly describes as “polyphonic rhythms”, a “cacophony of stories”... in which multiple narratives intertwine in their own rhythmic makings, and help humans to listen “to how all kinds of social landscapes, whether in cities, forests, or global institutions, come to emerge” (Tsing & Ebron, 2015, p. 683). These patterns and stories help to re-situate humanity in a sphere that recognizes what Irwin (2004, p. 28) might call “multilectical” or “intertextual” relationships between people, nature and place, bridging the conceptual split within Western cultures that has positioned humans as both above and outside of nature (Plumwood, 2003).

3.1.4 Art and the Anthropocene

Canadian artists Edward Burtynsky, Jennifer Baichwal, and Nicholas de Pencier have propagated “Anthropocene” in their recent ground-breaking oeuvre of the same name. Part film and part touring art exhibition, the filmmakers document and probe into the global reality that “humans now change the Earth’s systems more than all natural forces combined” (Art Gallery of Ontario, 2018). Canadian photographer David Ellingsen (2016) also recently created a series entitled “Anthropocene” (Figure 8), which is a direct reaction to the naming of the epoch.



Figure 8: Photographs from David Ellingsen’s (Cortes Island, Canada) “Anthropocene” series, 2016, chromogenic print. Left to right: *Thunder*, *Cry Wolf*, and *Titan*.

That many current and contemporary artists are aligning themselves with the concept of Anthropocene and its other critical designations makes for a major moment in scholarship to begin to shuck apart the deep cultural questions of this era (Turpin & Davis, 2015). In an effort to further centre contemporary art practices as “critical, revitalizing, and imaginative practice toward sustainable communities”, Foster, Mäkelä, & Rebecca Martusewicz (2018) published a timely book featuring the cultural-ecological works of current artists, educators, and scholars. They bring in intersecting theories and practice in art, education, and ecojustice, a framework addressing the relationship between social justice and ecological well-being through three “strands”: cultural-ecological analysis, revitalizing the commons, and engaging imagination (Bowers, 2001; Martusewicz et al., 2015). Research of this kind indicates an exciting surge of literature on ecologically-engaged art and its role in socioecological transformation. It further highlights the need for humanities in tackling cultural dimensions of sustainability (Fischer et al., 2007).

In their curation of papers on the “arts” of paying attention and “crafting meaningful responses”, eco-humanities scholars Van Dooren, Kirksey, & Munster (2016, p. 9), too, have drawn attention to how artists are engaging with Anthropocene thinking, and “facilitating alternative ways of speaking and thinking about how our own survival is contingent on entanglements within multispecies assemblages”. In their framing of the *assemblage*, they are alluding to the seminal thinking of Deleuze & Guattari (1987) who conceptualized the assemblage, described as a grouping of humans and more-than human actions and interactions in which the whole is more than the sum of its parts. Where the assemblage is a way to propose the agency of the collective: the power of a togetherness, a multispecies collective in which “each member and proto-member of the assemblage has a certain vital force” (Bennett, 2010, p. 24), it makes sense that there is potential for budding research in understanding the centrality of the artist within the assemblage (Bennett, 2010; Tsing, 2015; Van Dooren et al., 2016).

Efforts to explore “Anthropocene thinking” in the shared spaces of humanities— for example, anthropology and the arts (Bakke & Peterson, 2017)— still rarely centre artistic perspectives through a systematic study of artists themselves. In particular, research in the intersection of visual arts, the environment and sustainability has yet to find its way into the commons of current scholarship in interdisciplinary environmental sciences. It is therefore not surprising that there still remains so little work in the environmental sector, i.e. within the realms of EE or education for sustainability, on the role of *artists* in fostering a sensibility towards sustainability; towards creating futures that are livable for both human and more-than-human communities. Existing research may allude to specific arts project case studies, or may apply arts-based research methodologies, but neglects to centre the collective artistic voice, i.e. first-voice perspectives of environmentally-engaged artists themselves through empirical study.

While there is ever-growing collective artistic engagement with contemporary global environmental issues, there are few existing studies which critically explore the intersections of the arts & humanities, sustainability, and EE globally, and especially within the geographic context of Canada (Clammer, 2014; Wright & Kent, 2015). A possible explanation is that disciplinary separateness does not allow for scientists, including social scientists working in the environmental sector, to be versed in the methods, languages, or considerations of artists who are engaged in environmental work. It is through our research that we seek to bring needed scholarship to this area by centring the perspectives of current practicing and professional artists themselves.

3.2 Conceptual framework: poiesis

3.2.1 Thinking with *poiesis*: artistic “making” as socioecological transformation

In their paper on climate-related arts projects, Galafassi et al. (2018, p. 71) define transformation as: “fundamental changes in structure, function and relations at the personal, political and practical spheres of interdependent social, ecological and technical systems, leading to new patterns of interactions and diverse outcomes.” Given the hypothesis that artists play a central role in reconnecting culture and nature and reworking our social landscapes through acts of making, we position the “making” of cultural change in the context of our study with environmentally-engaged art specifically as what geographer Braun (2015) names *socioecological transformation*. Hawkins et al. (2015, p. 332) similarly identify forms of socioecological transformations in their own examinations of a “wider set of ethnographies of art–science projects” in exploring arts-driven environmentally-engaged collaborative works in the UK. These transformations move towards “the possibilities and consequences of a ‘new earth’ and a ‘new humanity’ that is still to come” (Braun 2006, p. 219; quoted in Hawkins et al., 2015, pp. 331-332).

Poiesis— the Greek root of both poetics and poetry; and literally, a translation of “making”— is an apt word to think with, both in terms of artists’ “making-of” environmentally-engaged artworks and in the “making-of” more sustainable and livable futures (Cope, 2013; Irwin, 2004). According to Cope, (2013, p. 121) *poiesis* can be a site of transformation, encouraging a “mixing up of self and other, inside and out, human, animal and other matter”. Cultural theorist and scholar Sacha Kagan (2014, p. 75) also describes poiesis as being “about the creative-constructive-productive” and “bearing a transformative potential, of especially high relevance to the search process of sustainability in its dimension of cultural change.”

In her work in art and curriculum studies, Canadian artist and scholar Rita Irwin (2004) proposed the concept of *a/r/tography* (artist-researcher-teacher), in which the artist develops their creative process through a “rendering [of] self through arts-based living inquiry”. In this framework, Irwin describes *poiesis*— the art itself, the making, the methods and materials— as an important “third other” way of knowing, a needed layer in order to move beyond the dichotomous/dialogical tensions between *theoria*— the theory, research, philosophies, reasons behind the work— and *praxis*—the teaching, learning, actions and interactions of the work. Irwin argues that thinking with poiesis enables a moving from *dialectical* relationships to *multilectical* relationships, “moving to a more complex intertextuality and intratextuality” (Irwin, 2004, p. 28). *Poiesis* is therefore a crucial mode of knowing and zone of transformation, in which rendering self through self-inquiry is a crucial step. In her own application of the a/r/tography framework artist Anami Nath (2004, p. 120) references educator and philosopher Paulo Freire’s pedagogical position:

As the world and I continue in this process of being, integrating and intervening self into the context, I transform the world. Freire (1998) refers to this process as the shift from life support to a comprehension of the world.

Poiesis can thus be a way of thinking about change in the context of agency of a creative practice, which can connect individual transformation through artmaking with wider socioecological transformations.

3.2.2 Moving beyond autopoietic systems

Like Plumwood’s (2006) description of humanity’s paradigm as largely “self-enclosed and self-supporting”, both Haraway (2016) and Kagan (2014) characterize our current self-enclosed system of hypermodernity and unsustainable economic production, consumption, and growth, as one that is *autopoietic* (literally: self-producing). *Autopoiesis* is a system of thought that is

individualist, self-contained, closed off from environment, and “incapable of communicating directly with the non-human environment” (Kagan, 2014, p. 5). Autopoietic systems are bound by a feedback loop that both reinforces and is informed by human exceptionalism, individualist mentalities, market-driven, technocratic and managerial economic ideologies, and neoliberal world-making projects which characterize Western modernity (Kagan, 2014; Haraway, 2016).

Where autopoietic (self-making) systems “are not quite good enough models” for thinking, Haraway (2016, p. 33) advocates instead for “collectively-produced systems” which do not have “self-defined spatial or temporal boundaries”. Haraway advocates for a “multi-species-becoming-with, multi-species co-making, making-together”: what she calls, drawing from Beth Dempster’s (2000) work: “*sym-poiesis* rather than auto-poiesis” (Kenney, 2015, p. 260). Similarly, in his dissertation and resulting book “Art and Sustainability”, Kagan proposes a “recovery of the eco” (2014, p. 249) in his central concept of *autoecopoiesis* that is, *self-making-with-environment* (literally: auto=*self*; eco=*dwelling/environment*; poiesis=*making*). Derived from Luhmann’s systems theories, in which in modern society, the “psychic system”, i.e. the human, is not in direct communication with the wider-than-human system, Kagan is arguing for a need for the departure from the disconnection that binds humans in a self-producing system. Kagan (2014, p. 464) describes his terming of autoecopoiesis as an argument for “systems operating in ways creatively sensible to chaos” in which “psychic systems and social systems... construct themselves in open communications with their environments”. For this reason, Kagan (2014, p. 464) argues for keeping the “auto” or “self” in reference to self-transformation:

Not only 'eco-' is necessary, but also 'auto-' because the capacity for relative autonomy (i.e. a capacity for self-closure) is a pre-requisite for a system's ability to participate in its own (re-)construction.

Autopoiesis then becomes “troubled” as Haraway might posit, in which “self-organizing individual units” then become entangled in a “generative friction [and] enfolding” in more “complex, dynamic, responsive, situated, historical systems”

(Haraway, 2016, p. 58). There is then a repositioning of self within the environment in order to make way for a world that is characterized by Kagan's descriptions of "cultures of sustainability": one that is "self-critical, reflexive, and creative" (Kapoor, 2010, p. 1037).

The need to move from *autopoiesis* to *auto-eco-[sym]poiesis* share comparisons to what Kapoor (2010, p. 1035) introduced in the *Futures* issue on "Signs of an emerging planetary transformation". Kapoor describes "two broad orientations in social interaction and in human interaction with nature": 1.) the current dominant ideology that fragments humans from environment; that is, a "consumptive-materialistic-atomistic orientation", and 2.) the integrated model towards which humanity can move: that is, an "ecological-spiritual-integral orientation". The former, autopoietic orientation is characterized by a lack of "acceptance of self and others" whereas in the latter sympoietic or autoecopoietic orientation— a paradigm towards which humanity could move— there is a prevailing emphasis on "ethical principles for self and others". This is comparable to Val Plumwood's (2006, p.1) advocacy of a deep sustainability, which both includes and extends beyond common understandings of sustainability. In cultures of a "deep sustainability", the "oft-cited" needs of the present generation are met without compromising the ability of future generations to meet their own needs, as a result of a deeper shift in which there is a "cultural recognition of nature" and an ethic of "mutual life-giving"— in other words, an ethic of sympoiesis (World Commission on Environment and Development, 1987; Plumwood, 2006, p.1; Haraway, 2016).

Kapoor (2010, p. 1039) highlights that while the world continues to exist predominantly in an "atomistic-analytical" orientation— i.e. an unsustainable autopoietic system— there is indeed an evolutionary shift in human consciousness, in which there is "the beginning of the emergence of the ecological-synthesising-integral mode of thinking". Kapoor thus argues that these transformations in thinking and behaviour are already underway. Poiesis is a means to understand the "making-of" shifts towards more sustainable and livable futures in the context of creative cultural work.

3.3 Research process and methodology

The current poietic gap in environmental research informs both the philosophical and methodological approach to this study (Kent & Wright, 2015). The conceptual underpinning of this work draws from a mixed qualitative methodology, sharing ecocritic Ada Smailbegović's (2015, pp. 96-98) advocacy for a *poetics of description* in order to amplify the affective and aesthetic— i.e. artistic— voices within the environmental movement. Poetics, as a philosophical grounding of the work, calls for narrative, descriptive, ethnographic, and phenomenological approaches to research which seeks to elicit stories of the human experience and social imaginaries in the context of the Anthropocene (Seamon, 2000; Irwin, 2004; Guest et al., 2013; Smailbegović, 2015). This research presents an interpretive documentation of environmental artists' stories and reflections through identifying the emergence of their shared meanings (Guest et al., 2013; Seamon, 2000). At the same time, the work shares the “polycentric” view of truths that arts and sustainability researcher Helene Illeris (2012) describes in her work, demonstrating the multiplicity of views on reality that a critical art education for sustainability approach itself can create, while locating key themes and concepts associated with these practices. Citing poststructuralist philosophers Foucault (1984) and Deleuze & Guattari (1987), Illeris (2012, p. 83) argues:

The solid 'self' is substituted by 'practices of self' and by an ideal of the 'human being' as a self-creating, aesthetic formation, able to transcend or transform power/knowledge constructions... in ever new and unforeseen manners.

The emergent quality of self and self-making into “ever new and unforeseen manners” reflects the philosophical position of this research. The work further attempts to understand artists' ascribed “lived experiences and the behavioral, emotive, and social meanings” (Guest et al., 2013, p. 11) in relation to their arts practice and the environment, and recognizes what environment-behaviour researcher David Seamon (2000) calls “person-world intimacy”, in which the embodied self and place in which the self is situated are intricately bound. The

study thus uses a descriptive and ethnographic approach to telling environmental artists' stories, a phenomenological approach in identifying emergent themes and patterns, and a post-structuralist approach both in its positioning of *self* as emergent, and in its positioning of environmental artists as potential counter-narrators to the "master-narrative", transcending the essentializing discourses of unsustainability (Illeris, 2012; Guest et al., 2013; Kagan, 2014).

This study focused on investigating Canadian artists perceptions of their own role in promoting socioecological transformation through their arts practice. It is worth noting that the artists that participated in the study spanned a geographic area of nearly ten million squared kilometres, with participants based as far north as Kinngait, Nunavut, as far east as Portugal Cove, Newfoundland, and as far west as Bowen Island (Nex̄wlélex̄m), British Columbia (Figure 9). A full list of artist participants is available upon request.

We conducted 24 semi-structured in-depth interviews with artists based and working within what in present day is known as Canada. While the title of artist is flexible, for our study we selected individuals who self-identified as professional artists, wherein at least part of their work and income is based around artmaking. Further, our criteria allowed for emerging, mid-career, and established artists, based on Canada Council for the Arts' (2017) criteria for visual artists which is defined by: having some form of specialized training, recognition from peers, time commitment, and a history of presentation or publication. In an effort to scope the wide range of arts-based expressions and practices, we focused on artists working in the realm of visual arts (ex. sculpture, ceramics, painting, drawing, printmaking, mural-making), including performance and installation art (i.e. multi-disciplinary visual arts with elements of sound and/or drama).

Artists were selected using a combination of non-probabilistic purposive snowball sampling methods through outreach via arts faculty and curatorial experts based across Canada, through artistic publications (e.g. through an examination of recent volumes of Canadian Art magazine), extensive online searches of related artist

residencies, artist websites, and referrals from other participating artists. Artists were also selected based on their descriptions of one or more body of work which described themes of sustainability through an engagement with the environment.

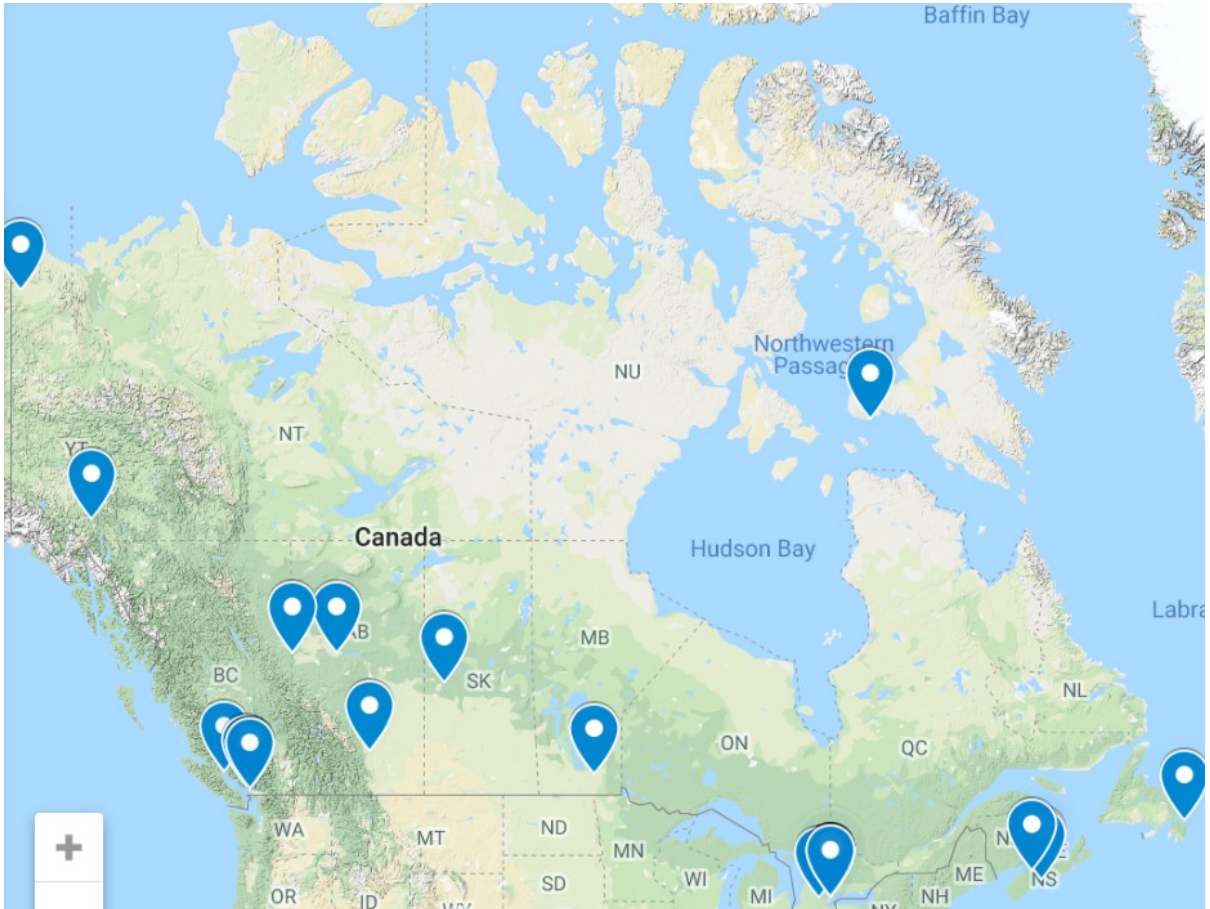


Figure 9: Physical map of Canada marking the 24 visual artist participants' primary places of living and working.

Data collection occurred from May-August 2018, resulting in 30 hours of audio-recorded, semi-structured interviews which centred around the artists' opinions around sustainability, cultural change, and how the artists engage with these ideas in their own process and practice. Interviews occurred both in situ (i.e. in artists' studios and during residencies), as well as remotely (i.e. via Skype). Interviews were then transcribed and coded for emerging themes using inductive thematic analysis in NVivo qualitative data analysis software (Guest, Namey & Mitchell, 2013).

3.4 Key findings from interviews

3.4.1 Overview

While several themes emerged from the interview data, it is important to note that the artists, their perspectives, and their artworks are culturally, biotically, geographically, and epistemically situated in multiple environments. The narratives artists tell about themselves and their arts practice are embodied in self and derived from knowledges situated within “place” and the communities in which they are situated. We further note that in our efforts to identify ideas through coding— that is, “teasing out” the themes in the data— isolates these themes as divorced from one another. In reality, the themes we identified ran through repeatedly in our conversations, often in relation to one another.

This section highlights the major themes that emerged in the analysis of the interviews in response to the research question: how do environmentally-engaged artists conceptualize their work as being socioecologically transformative? While many themes were identified, we used the framework of poiesis as a way to compare artists’ process of making-with the environment, and self-inquiry or self-making to Donna Haraway’s work on sympoiesis (making-with) and Sacha Kagan’s work on autoecopoiesis (self-making-with-environment) in our analysis. We therefor offer three major themes which rose from the interviews which describe how environmentally-engaged artists see themselves as encouraging cultural change and socioecological transformations: 1.) the act of **making-with place**, which then leads to 2.) the act of inquiring into the artist’s environmental values and “**making**” **self**, which can ultimately expand to 3.) a wider-than-self change; that is, **making small shifts in the community** in which the artist is embedded.

3.4.2 Theme #1: Artists as making-with place

The notion of “place” has been described by geographers as a natural and cultural ensemble of human and biophysical features, as well as the individual and

communal meanings that are created through experience, interaction, and intention (Relph, 1976; Seamon & Sowers, 2008). Other scholars use the terming of “naturecultures” as a way of synthesizing the idea that “that nature and culture are so tightly interwoven that they cannot be [conceptually] separated” (Malone & Ovenden, 2016). Given that this study focuses on artists who are enacting creative participations in, with, about, and for the environment, it may seem obvious to state that artists are “making-with” the natural/cultural environment. However, the terming of “making-with” is an important means of positioning the artist as one who sees their very hands, their body, and their social self, as making-with place—what Haraway (2016) would call a “sympoietic” making and becoming-with human and other biotic communities. Relph (1976) describes the deep involvement with place, i.e. a strong “sense” of place as “existential insideness— a situation of deep, unself-conscious immersion in place and the experience most people know when they are at home in their own community and region” (Seamon & Sowers, 2008). With the artists we interviewed, we found that there is an existential immersion with place: an environmental relationship that extends beyond making a mere *plein air* landscape painting, or as participant Sharon Kallis put it: “just taking a sculpture that they’ve made and putting it out in the environment and then documenting it because it’s surrounded by trees and rocks or beside a river or whatever.” In our interviews, artists would describe a deep sense of place, an embeddedness in and responsiveness to place, particularly in relation to the community, bioregion or geographic locale in which they were situated. A making-with place, i.e. both the natural and cultural environment, was considered a key component to many of the artists’ conceptualizations.

For example, artist Sharon Kallis talked about the community-engaged art projects she and her arts collective EarthHand Gleaners facilitate in the city parks of Vancouver, in the Salish Sea bioregion of coastal British Columbia. Through creative actions like growing botanical materials for textiles and dyes in the urban-based “Means of Production Garden” (Figure 10), hosting conversation circles with other makers to discuss shared coastal traditions” i.e. net-making and salmon leather, and

creating space for participants to “think about who we are, how we're here, and how we got here”, there was a sense of what Kallis described as the deeper place-based work of artmaking. Kallis described how through working with their hands, art can help “re-connect that sense of human use and stewardship to a place, to a working landscape.”



Figure 10. Left: Artist Sharon Kallis harvesting willow in the “Means of Production Garden” (Vancouver, BC). Top Right: fibre-dyeing processes. Bottom Right: Participants create butterfly nets from blackberry vines; a collaborative community project between Border Free Bees and EarthHand Gleaners Society, Richmond Pollinator Pasture, BC, 2016 (Photo: Jayme Johnson)

Artist, educator, and curator Terri Drahos also described a “making-with” place in relation to her work in developing “Uncommon Common Art”, an annual summer-long exhibit of outdoor public art installed across Kings County, Nova Scotia. Pointing out the many outdoor installations speckled across the landscape, which reflect rural community life in the ecologically and agriculturally-rich Annapolis Valley, Drahos described the project as a way to both celebrate and challenge the natural and cultural histories of the place: to “know the deeper meanings of taking care of the land, where your food really comes from, or what is involved in being a steward of that.”

Participant Carrie Allison Goodfellow, an artist of Cree and Metis ancestry, also emphasized her work as being threaded to land and place. While pursuing a Master of Fine Arts, Carrie began “thinking more deeply about rivers, how they're part of this larger system, and how the entire environment relies on them as watersheds”. She began a practice of beading rivers, resulting in the project, *Sîpîy (River)*, as a means to honour the Heart River and the Fraser River (western Canada) that are “major life forces” within her and her indigenous ancestors’ history. Goodfellow then connected them to the Shubenacadie River in Nova Scotia of eastern Canada, the place to which she had since relocated. She developed the Shubenacadie River Beading Project, in which she drew a large map of the river, parceled off the map into 111 sections, created a series of “beading kits”, and then invited community members to each bead a portion of the river. Goodfellow described this work as an opportunity to make connections within the community and to talk to elders and “Water Protectors” who were fighting oil & gas resource extraction projects on the Shubenacadie river. Where “beading is a gesture of honouring and building community through making”, Goodfellow was performing a sympoietic “making-with” the river and the community attached to it, as a place of environmental, cultural and spiritual importance.

Sculptor and printmaker Joyce Majiski also emphasized a rootedness in place; a “real strong affinity” for the Boreal Forest of the high Arctic, where she has lived and worked in the Yukon as an artist, wilderness guide, and biologist for most of her life. Majiski described a deep thinking about the social and natural ecologies of northern places— as well their connections to other landscapes— as having strongly influenced her art practice. The research question “What does the north mean to people?” has informed many of her community-based art projects and personal artist residencies. Similarly, on the other side of the Boreal Forest which spans the northern part of the country, environmental artist Marlene Creates is also developing projects which seek to develop an appreciation and a sense of place. She described her motivations in participating with the ecosystem and making-with

place, in which her art project the “Boreal Poetry Garden” exists as a series of arts events on site in the forest of her home in Portugal Cove, Newfoundland:

Well, one of my main impulses with the events is actually to get people to appreciate the Boreal Forest Ecosystem more ...I want it to be appreciated. So I think that the route I'm choosing, is aesthetic as well as the scientific information. That's why I have Boreal ecologists and mycologists, wildlife people, and freshwater ecologists. I have those kinds of people come and add information to the artistic part of it. I do get a sense that it is allowing people who come to the events to have more appreciation of the Boreal Forest ecosystem. I really think it is, [based on] the comments I'm getting.

Multi-media artist Jay White also responds to the particular ecologies of place, in his case with the coastal communities of British Columbia. Through his art practice, White has facilitated the collective map-making of a community's local creek, researched local histories of resource extraction on his residence of Bowen Island, performed “Coyote Walks” in urban spaces, and developed a graphic novel through an art-science residency at the Salmon Coast Field Station as a means to respond to the pacific wild salmon cultures in Musgamagw Dzawada'enuxw territory (Broughton Archipelago). When asked what sustainability meant to him, White succinctly described the importance of connecting to place:

I prefer to use “stewardship”, which is more of an individual level of agency. So asking, “what does it mean a steward?” And for me that means, and I think it is related to sustainability, but it's that I have a responsibility to the place where I live. I have a responsibility to the place that I call home.

Acts of stewarding place, a “creating-with” place, were thus a key component in informing artistic practice of those we interviewed. The artists' sympoietic “making-with” the environment shares similarities with the concept of creative “placemaking”: artistic practice that “engages directly with and in geographically defined communities to make change”, and is often environmentally oriented (Helicon Collaborative, 2018). “Making-with” place can be considered the first theme; the groundwork to wider acts of artistic poiesis, i.e. making “self” and making wider change.

3.4.3 Theme #2: Art as self-inquiry into environmental values

Often described as “the confluence of social justice, ecological integrity, and economic well-being” — or as Kagan (2014, p.10) puts it: “the triptych of biodiversity, cultural diversity, and human well-being” — *sustainability* and *sustainable development* are popular perspectives and entry points into the environmental movement, education, and transformation (Sauvé, 2005). Given the pervasiveness of sustainability as common discourse as well as the wide variance in meaning and interpretation, we used sustainability as conversational take-off points in our interviews, asking the artists what the term sustainability meant to them and to their practice.

Most of the artists we interviewed did not associate the word “sustainability” with their own arts practice — suggesting its “overuse” as a “greenwashed” or “empty placeholder.” However, when artists were probed further to think more deeply and beyond notions of *what sustainability means* to them personally, the idea of sustainability as self-inquiry and self-making emerged as a major theme. We heard recurrent reflections around the idea of investigating the artists’ own values through the production and use of materials for artists’ own art-making, in one’s own values system and self-cultivation; and, in the context of artist modelling personal values in order to impact the wider community.

In their recent work examining two environmental arts projects in Australia, Chandler et al. (2017, p. 507) similarly found that art can open up the space to question and generate reflection on environmental values, which “offers opportunities for social learning, influencing personal norms and questioning habitual routines”. The results of our analyses build on this generality in identifying that through their creative process artists begin with a process of self-inquiry and reflection into their social and environmental values. An emphasis on personal transformation, i.e. examination of personal values in relation to self and the place/community in which the artist was embedded, was a major thread weaving artists’ perspectives around sustainability.

For example, natural dyer and textiles artist participant Ayoka Junaid discussed her sustainability-informed arts practice as a mode of inquiry into her own values:

When my son was younger, I started thinking... okay, can I come back to making the kind of art that I love to make, but without using practices that would be harmful to him? Of course, that made me think about being harmful to others. And that's what made me start even just pausing to think about the materials I was using: Is it sustainable? How am I doing? What am I doing? Where do I choose to do it? So choosing to create my dyestuff outside my kitchen window is a choice to support the environment, and a choice to be sustainable.... [My work] is actually value-based, and sustainability can't happen unless we have connections to ourselves and to each-other.

Related to this theme, participant Grace W. Boyd, a ceramics artists, reflected on her installation piece at White Rabbit Arts Residency in Economy, Nova Scotia (Figure. 11). She discussed her process of “self-making” using materials found on the farm and surrounding forests of the arts residency:

...when I got [to the residency] it was like...I need to make “me” here. And it became more of a self-reflection and a self-portrait that I made. So...I used mostly cob clay, some willow, some bark, some reeds, some grasses. I did sculpture. That was a moment that I think definitely changed the way that I look at my personal emotional environment related to my art. And then looking at the environment around me, I found I did a pretty decent job at not being too aggressive on the land here. What I made literally is melting and decomposing back.



Figure 11. Ceramics artist Grace W. Boyd’s process-based ecological “self-portrait” at White Rabbit Arts Residency, Lower Economy, Nova Scotia, 2017. (Photos courtesy of Grace W. Boyd)

Many of the participating artists described the practice of firstly modelling *self* through environmental values as a major component to the perceived cultural changes that an arts practice could have. Photographer and filmmaker Sandra Semchuk described this notion of modelling oneself in order to create change:

Well, I think we need models, hey? I think as human beings we need models to learn how to do something and if in some small, small, way my struggles or my leaps of faith or my leaps of imagination, or leaps to connect or to participate in; if it provides something of a model, then that's what I can do. That's how I can contribute. And I think if I model change within myself; if I articulate that change within myself, then I make it visible to other people, so they can look at it for themselves, and, again, open up that space.

Self-investigation was considered an important predecessor to a wider goal of examining questions of both environmental and sociocultural sustainability. Goals of *thinking of oneself* as a good steward or *ancestor* for future generations, was another premise for several of the artists. Performance and visual artist Jeneen Frei Njootli, for example, spoke to the “idea of how to be a good ancestor” in reference to

her own work which is embedded in the ethos of the Vuntut Gwitchin community, asking: “What are we doing now, that will ensure that when we look back we’re able to say that we were upholding our values?” Peter von Tiesenhausen similarly expressed thoughts around leading by example through generational considerations:

If we actually said, “Okay. Do I want my grandkids, my great-grandkids to be happy, and proud of me? Do I want to be an ancestor that would be somebody you’d be proud to have as an ancestor? ... If you could see the big picture, if you could see into the future and your great-grandchildren; their health, the colour of their world, the diversity of their planet; the safety; clean air. What would you choose? What would anybody choose?”

For Jessica Winton, an artist addressing ecological issues through social sculpture and public art, she saw it as a form of expressing her own core values and beliefs, hoping to connect to others through her work. Installation artist and curator for an environmental arts-science residency program at University of Guelph, Julie Renee de Cotret, also described her art practice as rooted in values of an environmental ethic:

I come from an artistic background of sculpture and installation which are very much value-driven. Some of the values that are most important to me are to celebrate the potential of human beings to love life, respect life, and therefore amend certain conventions toward the environment that I think are first of all unsustainable, and second of all informed by a colonial and Western ideology.

In summary, “making self” through a personal inquiry into values was thus considered an important step in the artists’ practice. It could be considered precursor to “making other”, in which self-inquiry is needed before engaging in more expansive shifts and a “wider-than-self” change.

3.4.4 Theme #3: Artists as making wider-than-self change

While one interpretation of our findings, i.e. the prevalence of artists' associations with sustainability as a mode of *self-inquiry*, could reinforce the trope of the artist as an "autonomous", solitary genius living "outside society", we found that this is far from the case. The artists that we interviewed found their work to be most effective in collaborative contexts, and who described change as beginning— but not ending— with self. The environmentally-engaged artistic "self" is not "autopoietic": the self is not a "rational", closed, or completely autonomous unit. "Self", in the conceptualizations of many of the artists we interviewed, is instead emergent, relational and open-ended; a self that is open itself to transformation. Kagan (2014, p. 311) describes this in referencing artist and author Suzi Gablik's (1991, p. 177) similar argument: "[b]y redefining the self as relational [...] we could actually bring about a new stage in our cultural and social evolution". Through their process of making, artists may then engage in a "rebirth as an ecological self-plus-other or self-plus-environment".

It is further important to note that many of the artists emphasized that while their arts practice examined environmental issues or was infused with an environmental ethos, this was not a means of creating didactic messages. As artists, their work is by its very nature interpretive, open-ended and non-prescriptive. The artwork exists as a means for the viewer or audience to discover new ways of thinking and seeing— as artist participant Diyan Achjadi described: "showing networks of connections and threads that are larger than oneself." The expression of personal values within the art to then connect on a wider cultural level was an important aspect for many of the artists we interviewed. Julie Renee de Cotret, for example, described the significance of how artworks can alter one's thinking by prompting new questions and ways of thinking, where an artwork "can be like a proposition" in which "hopefully some of the visual impact makes an impression on an audience member enough that those propositions are somewhat in their memory".

The idea of making a wider impact after an initial creative self-investigation was a

theme that surfaced in many of the artworks. As in the instance of Grace W. Boyd and her ecological self-portrait, an art practice beginning with *self* can be seen as an important way to bring about wider shifts within the communities in which artists were situated. After “making self” at the Red Clay arts residency, Boyd returned a year later to the site at which she constructed her sculptural self-portrait, to facilitate a natural materials and sculpture workshop for a wider group of individuals, demonstrating the harvesting of natural materials found within the immediate natural environment and teaching skills like basket-weaving and traditional clay-firing. Leading by example through demonstrations and storytelling, Grace described herself as “more of a *sharer*” in the context of working within the arts, encouraging other workshop participants to probe into their own process of self-making, while sharing their own situated knowledges.

Artists described their ideas of self-transformation through their practice as a way of encouraging changes that could extend to the wider human and more-than-human community. All of the 24 artists we interviewed described a belief or hope in their work as enabling “some kind” of change. This change was often described as beginning within self through personal research and inquiry, which could then translate to an external change, i.e. “small” or “subtle” changes within others. Jay White, whose practice is an embodiment of his own environmental ways of seeing and listening to the world through drawing, performance, and community-based arts research, suggested that while he was not on a celebrity-level of influence, his creative actions could lead to change:

You can only change one person at a time. And I think that's something I hold true to myself. I don't think I'm the kind of person who's going to be like [environmental activist] David Suzuki, you know; there're some players who have huge ships. But I do like to think that through my small actions, through my way of moving through the earth... that it can influence other people and think of other possibilities...

Dancer, filmmaker, and photographer Ayelen Liberona, discussed seeing the change to which she has borne witness in both her self and in those who have engaged with her in a collaborative, kinetic arts practice:

I've seen it and I've felt it. I have been changed. And I have seen others changed by it, and that is my proof. I actually get emotional thinking about it... And having that be something that has been so transformative for them; to move and be able to think with the heart. The ripple of that is so healing... I've seen first-hand the ripple of an embodied practice.

“Slow art” visual artist Karen Abel, who creates work by visiting remote natural areas and conducting “durational site-sensitive field studies” also discussed a hope for the ripple effect of a practice that begins with personal reflection. Describing her work as a kind of “reciprocal place/community immersion” Abel relayed a belief in “small shifts” in her audience/viewership:

Perhaps my hope is that people might be willing to receive the essence of my work at a personal, energetic level, which could in turn influence small shifts in the depth of ways of feeling, seeing, and thinking about all life and phenomena commonly defined under the umbrella terms “environment” or “nature.”

This belief in an artist’s ability to encourage shifts in ways of thinking, sensing, and knowing environment was a common theme in artists’ reflections. Performance artist and leader of the Afronautic Research Lab, Camille Turner, explores the silenced natural-cultural stories of the environment; in particular, the hidden black geographies of Canada, in which through Afro-futurist imaginaries she creates a community of “Afronauts” who are returning to save the planet (Figure 12). Turner has further used her art practice to invite audiences— both youth groups and adult participants— to reflect on what futures they envision for their communities, as was the case for the Landmarks exhibition with co-collaborator Cheryl l’Hirondelle.



Figure 12. Left: still from Camille Turner's *The Final Frontier*. Right: "Freedom Flag" student work, as a part of LandMarks (2017) exhibition *Freedom Tours* . (Photos: Camille Turner, website)

Turner reflected on the role of artists in changing the social consciousness through their work:

I think what can really change is just how people see things, experience the world, and gain some insight into what is around us that needs to change. I think that is what I can do. This is what I'm adding— and there are a lot of people who are doing this work—but I add my little piece. So I think that there is a lot of power. I have faith in the power of people.

Sharon Kallis discussed the role of artists in the context of the arts collective EarthHand Gleaners, an arts-science initiative encouraging environmental arts research and skills-sharing. Sharon emphasized the need for "individuals who can comfortably be almost shape-shifters or chameleons and shift from one place to another place, to pollinate". Kallis discussed the important role artists play when they are "functioning at their best place within social work or within environmental work", similarly stressing a belief in artists' ability to "change our thinking" which she argues is "the most important thing that we have to do in this country." She expressed:

Artists, as the dreamers in society, are often the ones that have those visions that can be completely unlike anything that's ever before been imagined... where we find ourselves now, saying, "Hey, there's somewhere else we could be; we don't need to be here. How do we get to this other place? What are the paths that will take us out of this current paradigm?" So there's a really important place within society for artists there. But it often is hard because

it's not concrete. How do you measure that? What's quantifiable? How do you show those shifts in thinking? Where that baseline shift has happened into a new way of thinking, and really underscore and underline, "oh well this artist did this project and changed peoples' thinking". It's often such a subtle thing that it's not seen, but it happens, I think, in small, subtle ways...

A belief in cultural shifts, despite their perceived subtlety and lack of precise “measurability”, points to the value of story and narrative as indicators for demonstrating these arts-driven changes. Decolonial thinker Walter Mignolo says that “poiesis needs a particular executioner, the poet that is able to, instead of making a shoe or building a house, ‘make’ a narrative that captures the senses and emotions of a lot of people.” (Gaztambide-Fernández, 2014, p. 203). The story-“maker”, i.e. the artist, models a narrative that is delivered to an audience. Participant Peter von Tiesenhausen, a multidisciplinary artist, used narrative as a means to discuss these perceived shifts, naming one of his ongoing and modulating series “Transformation”, in which life-sized human-figured wood sculptures become storied interactions with the environment (work pictured in Figure 13). Peter reflected on the nature of his work as a mode of self-inquiry in which his work questions his own environmental impact, while also commenting on the importance of being public with his art practice in order to reach a wider audience, suggesting: “If I choose to be alone, nobody knows who I am. And I have no influence. If I choose to be public, my impact is huge... I publish books, I have exhibitions, I help maintain an economy, and I hire people.”

Von Tiesenhausen discussed the importance of modelling his values as an artistic practice which could reach a wider audience, describing his art-making as a mode of community-making, and a commitment to having an impact in the context of encouraging movements towards social, environmental, and economic sustainability. Von Tiesenhausen highlighted the example of helping his Alberta town of Demmitt to imagine the rebirth of their failing community hall. Using pine-beetle-kill timbers and straw-bale walls, his efforts— rooted in his personal environmental values— helped to rebuild an arts and cultural centre that is now

considered financially, environmentally, and socially sustainable, with a regular a host of “solar events, mum’s groups, and young agrarian gatherings”. Von Tiesenhausen described his ability to instil social and environmental values, envision alternative futures, and build connections as having been fostered through his 30-year artistic career, which ultimately allowed him to conjure up the vision and resources to revitalize a community which he described as being at the brink of total “demise”:

...We needed somebody to connect us, to connect all of us together, and act as the lightning rod. In that particular case, with our tiny little community centre, that was me. And I recognized that that was my role at that particular time...And so making a conscious change: you can't force it. You have to be ready for it when it happens. The only way to be ready for it is to be engaged, aware, and be living a meaningful existence to the greatest extent that you can. And I think that's what my art has allowed me to do.



Figure 13. Left: Peter von Tiesenhausen’s “Transformation” (from *The Watchers* series), bronze, wood, vine wax. Top middle: artist Peter von Tiesenhausen (photo: Nina Dietzel). Bottom middle: construction of the Demmitt community centre. Right: interior of the Demmitt cultural hall (photo courtesy: Peter von Tiesenhausen)

Alexa Hatanaka, co-facilitator in the Cape Dorset-based arts organization Embassy of Imagination, similarly described the significance of self-inquiry through creative arts in the context of community resilience for Inuit youth in Kinngait, Nunavut, in the northern Arctic region of Canada. She gave the example of an ongoing

collaboration between the arts collective and the Land Committee of the District Education Authority representing schools in the region.

Young people really deserve so much more, and should be empowered to be part of the conversation more now and in the future. It felt important to create an action; not just a conceptual exercise. So, part of that was working with the kids: they made these small playdough sculptures of snowmobiles. And then cast them out of aluminum from the highschool that burnt down in Cape Dorset in 2015. And we're selling those to fundraise for the Land Program here... to get the kids out more; on the land more, and have them be part of the process, and part of the understanding that art can function in many ways. And one of those ways is to be sitting with your own creativity to create change for yourself and your community, where you can imagine a different future for you and your peers and do that through your art-making and your own hands.

The “making” of these snowmobile sculptures, signifying Kinngait youth participants’ desire to access their land and culture, was a means to simultaneously “make futures”, to “make-with” the community through “making self”, all fostered by making art. In other words, the very act of *poiesis* can be a means of enabling of socioecological transformations.

There was a widespread artistic belief that acts of art-making and self-creating can enable new connections, fostering thinking that is critical, self-reflexive, or aspirational. These new connections are then believed to encourage wider transformations towards more livable and sustainable futures, bearing a great analogous richness with current research in cultural and environmental studies: particularly that which focuses on both a *making-with* nature and *making-for* the “resurgence of people and places” (Haraway, 2016, p. 86).

3.5 An entanglement of understanding

The idea of moving between self-transformation and wider-than-self transformation, or what Freire (1998) described as moving from self-support to world-support is a framework for understanding with the artists we interviewed. This transforming of world is what Heidegger (1927) popularized and Van Dooren,

Kirksey & Munster (2016, p. 12) might describe as “*worlding*”, in which artists are making “multispecies worlds” through storying both self and earth others. In *making self* through their creative acts they are simultaneously relating to one another, a “co-constitution” or “material-semiotic interplay” between the artist, their work, and the wider communities (Van Dooren, Kirksey & Munster, 2016, p. 12).

Arts practices can be both based in and informed by personal environmental ethos, which in turn both informs and arises from artists’ creative inquiry. Visual artist participants’ reflections on creating change—i.e. “making” futures, or “worlding”—through making-with-environment, self-making, and making-for the wider community— suggest that artists with an environmental praxis are making important contributions to Kapoor’s (2010) description of an evolutionary shift, i.e. a consciousness that is oriented towards a “deep” sustainability (Plumwood, 2006).

The artists we interviewed believed that small shifts towards a new way of thinking and making with the environment were possible in their own arts practice: first within self, and then with others. There is a “multilectical” interaction happening here (Irwin, 2004): through an embedded making-with place, the artists are making self, making the wider-than-self environment, and in these acts, making small shifts towards sustainability. Poiesis, like Cope (2013) says, can be transformative. Contemporary environmentally-engaged artists perform *poiesis*, beginning with self-inquiry and self-support as a means to support and inquire into the “more-than” or “wider-than” human world (Abram, 1996).

Themes of making-with environment as a means to “make” both self and other can be conceptually framed specifically, as *sympoiesis* or *autoecopoiesis*. Artistic *poiesis* or acts of “making” which align with a sympoietic or autoecopoietic orientation with nature suggests that environmentally-engaged artists can be great agents in fostering socioecological transformation—or in other words, the cultural changes needed to what Galafassi et al. (2017, p. 71) say: “expand the imaginative

foundation for possible pathways that would allow us to reconnect human prosperity to the dynamics of Earth's ecosystems". Both Kagan's suggestion of autoecopoiesis and Haraway's proposition of sym-poiesis are compatible conceptualizations of understanding artistic engagements and developments of a sustainability that begins with "rendering self", which in turn encourages an open-ended rendering of environment (Irwin, 2004). They are helpful theories in understanding how artists perceive their own creative process in making-with-environments, so long as self remains relational and open to environment.

Kagan's concept of autoecopoiesis applies primarily in the context of psychic systems (human consciousness) in which environmentally-focused artists believe in the transformative potential of their personal arts practice through modelling self, as a necessary means to communicate with the environment. Self-making is the "prerequisite" for the artist's "ability to participate in their own reconstruction" and to promote shifts towards a more environmental consciousness (Kagan, 2014, p.20). The "subtle shifts" artists perceive their work to influence could be what Kagan theoretically calls "meaningful disturbances" needed for widescale paradigm shifts, or what Braun (2015) terms socioecological transformations.

We propose a framework of artistic entanglement of auto/eco/poiesis (Figure 14): an open-ended and relational entanglement that shows how the environmentally-engaged artist, that is, one who is engaging with place as a natural-cultural constitution, *makes* wider change (socioecological transformation) through *making self* (self-transformation). The thread, woven by the artist, is *auto-eco-poiesis* (self-making-with environment), in which the artist's sym-poietic creative process of "making" the ecological self through engaging-with place can extend towards wider natural-cultural shifts. In this framework, the artist is intertwined with nature and culture; positioned as imbedded within both the [human] community and the [more-than-human] environment. While a making-of the ecological self is a "prerequisite", neither the creative process nor the system which artists seek to "make" is autopoietic. Rather, it is sym-poietic or autoecopoietic, in that the

ecological self is in a generative “becoming-with” environment, in which artistic inquiry can lead to socioecological transformations towards a deep sustainability.



Figure 14. An auto/eco/poietic entanglement: the environmentally-engaged artist is embedded in and making-with place (community and environment). The artistic act and inquiry of *making-self with the environment*, can be a means of making open-ended *wider-than-self* socioecological transformations.

Kagan’s terming of *autoecopoiesis*, and his positioning of an “ecological self-plus-other or self-plus-environment” (Gablik, 1991, p. 177) further bears parallel to the “open-ended assemblage”, in which the whole is more than the sum of its parts (Deleuze & Guattari, 1987; Tsing, 2015). Anna Tsing (2015, p. 158) says that in research spaces, thinking with the assemblage allows for a gatherings of different “ways of being”, in which “one must attend to its separate ways of being at the same time as watching how they come together in sporadic but consequential co-ordinations.” Environmentally-engaged artists, i.e. those who are making-with places as natural-cultural spaces, are dreaming up new possibilities, new futures, new configurations for living. They are “world-making”, in which, like Tsing (2015, p. 281) says, there can be “room...for imagining other worlds”.

3.6 Conclusion

3.6.1 Overview of findings

The humanities and social sciences play a major role in pointing to the role of human agency in addressing the transformations that are needed to move into new paradigms and more ecologically-attuned orientations. In this paper we argued for the potential of visual artists as cultural workers to encourage these transformations: the cultural shifts needed to adapt to a climate-changed planet.

Based on a combination of primary data (qualitative interviews and field notes), and secondary data (current theory in ecological philosophy and environmental humanities), we found that contemporary Canada-based environmentally-engaged artists view themselves as having agency in the context of socioecological transformations (i.e. “making” more sustainable and livable worlds through making work). In our analysis, we used the conceptual framework of *poiesis*, the creative act of *making*, as a way to compare artists’ process of self-inquiry or self-making to Donna Haraway’s work on sympoiesis (making-with) and Sacha Kagan’s work on autoecopoiesis (self-making-with-environment). We found that the transformative potential of artists begins with a “making-with” place (sympoiesis) and a “rendering self through creative inquiry”, which can then inform the wider community and context in which the artist is situated. The *making-self* through self-inquiry as a means to *make-with* the wider environment is parallel to Kagan’s definition of autoecopoiesis. Through making-with place, artists are engaging in acts of self-transformation as well as wider-than-self socioecological transformations.

3.6.2 Implications in theory and practice: for researchers

This study highlights the need for cultural changes towards sustainability (Fischer et al., 2007). While there are currently few studies examining environmental art projects, our study builds on those that do exist, which suggest that reflection and inquiry into one’s own environmental values could be important for both the artist

and audience (Kagan, 2014; Chandler et al., 2017; Foster et al., 2018). By centring the perspectives of environmentally-engaged artists, this research builds on existing work by showing how artists reflect on and question their personal values, norms, and habits in their arts practice, which then become embedded in their work and practice. Our findings suggest that, given the pervasiveness of artists' beliefs in their practice as enacting small amounts of change within others, artists carry great potential to contribute to transformations towards more sustainable and livable futures. Ideally, this research can show the potential for continued research at the intersection of art, environmental studies, and transformative education.

We urge for a continued thinking-with *poiesis* as a philosophical entry point into understanding the importance of arts and humanities and their transformative effects. Where contemporary visual artists are actively addressing the need for engaging in “multilectical” relationships between self and the wider-than-self (human and earth “other”) communities, they may be vital in fostering a sensibility towards a deep sustainability, and in the *poiesis/making-of/worlding of* cultures of sustainability (Irwin, 2004; Plumwood, 2006; Kagan, 2014; Haraway, 2016). Researchers and educators working in the environmental sector (i.e. environmental scientists, educators, and activists) should be encouraged to adopt frameworks of creative self-inquiry that are foundational to models of arts education, as a way to expand their understanding of the important role arts and humanities in cultural change towards sustainability.

Where a strong sense of place was identified as an important theme, there is potential for research in understanding *how* artists working with environmental issues have both cultivated and promoted a stronger sense of place in their own lives. Additionally, the open-ended, emotional and interpretive qualities which often characterize artistic inquiry and interactions have implications for how artists could foster community-based resilience in the context of anthropogenic climate change. For example, the question: how can artists help communities develop an emotional “sense of place” while simultaneously adapting to places as they undergo

environmental change? The role of artists in developing place-based climate change adaptation strategies and addressing the psychological or solastalgic (Albrecht et al., 2007) stresses of climate change could thus be considered a major research opportunity. Finally, research examining the efficacy of environmental arts practices from the viewpoint perspective of the artists' audience- i.e. viewer, listener, or community partner- could be further explored.

3.6.3 Implications in theory and practice: for artists

It is clear that contemporary artists are deeply engaging with and responding to questions of what it means to live and make on a climate-changing planet. The self-reflexivity that characterizes artistic inquiry, practice, and research can allow for a deep understanding of connection to natural-cultural places (Malone & Ovenden, 2016); attending to the reality that as individuals we share this planet with many other human and more-than-human inhabitants. Where there is increasing artistic interest in creating works that respond to and align with the "Anthropocene", there is a major opportunity for artists to continue probing into questions of environmental uncertainty as well as the flipside, i.e. cultural changes towards a more sustainable and livable world. Artists interested in engaging in creative makings-with the environment may find the themes and frameworks developed in this paper useful in both understanding their agency as cultural workers and relating to other contemporary artists who are engaging with environmental work. Theoretical engagements with the work of environmental studies and ecological humanities scholars, as well as in areas of indigenous ontologies and critical geography, may also help inform and propel artists' sympoietic "makings" with their natural and cultural environments. Theoretical understandings of autopoiesis (Kagan 2014, Haraway, 2016), as well as the unsustainable worldview that Plumwood (2003) suggests characterizes Western thinking, are helpful in framing the need for change. Framing the intersections of "making art" and "making change" through poiesis can be another conceptual device for artists.

Finally, this study may exist as a support for artistic self-advocacy, given that the arts are an often precarious, undervalued, and underfunded form of labour. In the realms of meaningful work opportunities through arts grants, research collaborations, or community-development partnerships, this study can help to promote the cultural value of artists and encourage the creation of new artworks. Our study is one glimpse into how an environmentally-engaged arts practice can be a valuable, viable, and vital means to creating outward cultural changes towards sustainability.

3.6.4 Final thoughts

The need for a shift into new paradigms; new orientations towards more sustainable futures highlights the need for cultural agents to enact socioecological transformations. Thinking with the “Anthropocene” offers a way for scholars, cultural workers, and thinkers to position themselves within this critical zone while simultaneously pushing past current frameworks of thinking. Artists can play a major role in constructing new possibilities for more livable futures. As Donna Haraway (2015, p. 160) argues:

The Anthropocene marks severe discontinuities; what comes after will not be like what came before. I think our job is to make the Anthropocene as short/thin as possible and to cultivate with each other in every way imaginable epochs to come that can replenish refuge.

The absence of current literature on the major role artists can play in addressing climate change and promoting needed cultural change suggests that there is a huge potential for further research at this intersection. More transdisciplinary research linking “Anthropocene” scholarship (i.e. within cultural studies) and traditional environmental sciences is needed in order to increase understandings and literacy across disciplines. A “thinking with” the open-ended assemblage (Tsing, 2015) in both theory and practice could be useful in bringing together seemingly isolated and disparate areas of research. Given that “we are mixed up with other before we even begin any new collaboration’ (Tsing, 2015, p. 29), there is a strong need for seeing the unexpected patterns found across disciplinary spaces; for listening to the

many rhythms and counter-rhythms of research. Through collaborative arts-science research, the vocabularies, methodologies, and considerations found in the arts and humanities can become better appreciated by educators and scientists, and more embedded within the environmental sector.

Chapter 4: Conclusion

4.1 Overview of main findings

In this research, I sought to answer two major questions. The first: “How do contemporary Canada-based artists understand their practice as a form of environmental education?”; and the second: “How do contemporary Canada-based artists conceptualize socioecological transformation through their arts practice?”

The work drew from earlier scholarship in the fields of art, education, and eco-critical theory, particularly that which seeks to address the Western conceptual split of nature/culture (Bird, 2015; Patel & Moore, 2017). It further drew from current literature in environmental humanities and sustainability scholarship which conceptualizes the ways in which human cultures can imagine new futures by re-imagining their own planetary place and agency.

In particular, I drew from the conceptual framework of socioecological transformation as both the philosophical and pedagogical positioning of the work, i.e. that the world is in need of transformation, and in order to both effectively *and* affectively foster change towards sustainable futures, EE models must facilitate co-emerging self-and-world transformations. This work further drew from *poiesis*, or poetics, as the “third other” between theory and practice. A making-as-knowing conceptual basis for an arts practice called for an emphasis on poetics as the second conceptual underpinning for this study.

While drawing from seminal texts and contemporary theory in environmental studies, I sought to build new theory which can inform future research in both theory and applied research. There are two central findings which emerged from this inquiry. The first main finding is, based on in-depth interviews with current Canada-based artists, that an environmentally-engaged arts practice can be understood as an informal mode of transformative EE, through a creative interaction of conviviality

(making connections), curiosity (asking questions), and care (stewarding of self and other). As researcher and teacher, the artist is engaging poetics with theory and practical action (praxis), and exhibiting a series of cultural actions through their arts practice.

The second major emergent scheme is that of self-making-with-environment, or autoecopoiesis (Kagan, 2014), where artists were found to engage in a “sym-poietic” (Haraway, 2016) arts practice in which self-transformation was considered both an impetus and co-emergent process for wider socioecological transformations. This perspective views personal transformations through creative environmental engagements as leading to more expansive cultural changes in the human and more-than-human communities in which the artist is situated and interacting.

4.2 Research Limitations

While I strived to achieve both a depth and breadth of work that would do justice to such an interdisciplinary research project, there were several limitations to the study which warrant some discussion. As is often the case with a Master’s thesis, time proved to be one of the greatest limitations. The project spanned a projected timeline of two-years from beginning to completion, and in fact extended beyond this by several more months in order to fully achieve the academic attention the work warranted. While twenty-four months allowed for adequate time to complete prerequisite coursework, design the research study, apply for REB approval, perform recruitment and outreach roles, conduct interviews, and transcribe all audio-recorded data, the final population number of 24 participants made for a rich and saturated volume of data. Data analysis resulted in a long process of sieving themes, which led to forsaking some otherwise compelling discussion. This meant a number of what I call “research sacrifices” were made, in that while there remain many “potential” findings in the data, the analysis period ultimately needed to be given parameters in order to narrow in on two particular research questions.

It is further important to acknowledge the differences in lived experience as a likely shortcoming to this study. In this study I sought to locate to recurrent themes in artists' perspectives, i.e. shared experiences. However, it can be equally worth noting the many distinctions and differences, as sometimes it's not the most dominant emergent themes but the nuanced themes, the free-floating and non-categorized pieces that carry an insight worth discussion. It is particularly important to note the ontological differences between indigenous and settler artists, for whose lived, i.e. embodied and ancestral, experiences and generational stories have major differences. There are implications to grouping and assimilating these stories into a single framework. While this study did not seek to delineate artists' ethnic background, nearly 40% of interview participants self-identified as black, indigenous, or a person of colour. While the research sought to find shared meaning through emerging themes, there is an absence of highlighting the racialized nuances of systemic oppression in the discussion of this particular study.

Finally, while certain concepts and themes began to repeatedly come up after just a few interviews, given the wide range of artistic practice and personal, creative and geographic contexts, the interview data analysis could never truly reach "saturation"— which Guest, Bunce & Johnson (2006, p. 59) describe as the point in data collection and analysis in which "no new information or themes are observed in the data". Given that there was continuous potential for new insights, there was no true moment in which the question "how many interviews are enough?" could be answered (Guest et al., 2006). However, after conducting 24 interviews, the study needed to be given defined boundaries in order to create a Master's-level of analysis.

4.3 Implications of study

While artists have been asking questions and making art about the environment for millennia, the study of the contemporary artists in relation to the current climate crisis remains relatively new. There is wide potential and a number of rich possibilities for continued work in this area. This work hopes to root itself in an

involved and connected forest of research in environmental studies, education, and art. However, this study has only brushed the very surface layer of this rich network. I hope it can create some of the groundwork for continued scholarship in the confluence of ecological humanities, sustainability and education through mixed methodologies in qualitative research. An openness in creative ethnographic inquiry, experimental over instrumental modes of research, and the development of new forms of collaborative research will be important.

The findings of this study point to an overall high level of artistic commitment to environmental research and inquiry. The artists in this study showed a deep commitment to working across the traditional bounds of research and presentation, i.e. across other artistic disciplines, with indigenous groups, ecologists, anthropologists, educators, education researchers, grade schools, community centres, tourists, marginalized populations, not-for-profits, environmental NGOs, popular media, and so on. As cultural workers, the artists in this study show a high interest in taking scientific information and relaying environmental knowledge into embodied, felt, and sensed ways of knowing and relating to self and world. These acts of translation, i.e. through conviviality-curiosity-care and sym-poietic modes of transformation, point to the implication that artists are important cultural translators and environmental communicators.

One of the primary outcomes of this thesis research is the finding that art practices can play a major role in enabling environmental learning processes which could lead to needed widescale cultural change. The implications of this work advocate for the value, viability, and vitalness of art in environmental work. Artists and practitioners in interdisciplinary fields of environmental inquiry can look to the frameworks which developed out this research through ground-up inquiry that focused not only arts-based methodologies, but on centring the beliefs, values and lived experiences of current practicing artists as cultural workers whom carry agency to enact change through arts-based modes of communication.

Transformative environmental education (EE) models which inform the conceptual

framework for this work— i.e. eco-pedagogy (Gaard, 2004), ecojustice (Illeris, 2017), art education for sustainability (Martisewicz et al. 2018) and critical art theory— are important in redefining theoretical and practical cultural questions around sustainability. Foster et al.'s (2018) recent text: “Art, education, and ecojustice” as well as Demos’ (2016) recent volume “Decolonizing Nature” is a timely artistic and poetic addition to that of previous literature such as Adams & Mulligan’s (2003) earlier scholarly volume of the same name. Future work in EE should continue to examine this intersection; extending beyond the use of arts-based approaches in data collection (i.e. in community-based and participatory action research methods), and centre the role of art and artists in communicating environmental knowledge. The work hopes to enable both researchers and artists with tools— i.e. a framework of conviviality, curiosity, and care as well as that of sym-poietic practices— for continuing creative processes and determining cultural value in their practice, and could be an aide in obtaining project grants, professional development, and creative recognition.

Finally, this work bridges a gap between the art world and environmental decision-making in resource management and climate change programs. There are implications of this research for governments and stakeholders in environmental sector: i.e. policymakers in climate adaptation programming, whom can look to this work to gain artistic literacy and develop deeper understanding of environmental artists’ reasons, beliefs, and intentions for creating art with an environmental axis. Where environmental departments have tended to neglect the cultural and educational impact of visual, installation, and performance artists in environmental work, decision-makers can better engage artists’ skills, training, and projects, in climate agendas, creative placemaking and community programs, sustainability education curricula, and cultural funding platforms.

4.4 Recommendations

4.4.1 Adopting the emergent framework of conviviality, curiosity, and care

Artists, researchers, and educators in environmental studies are encouraged to adopt the located concepts of conviviality, curiosity, and care, both as main themes identified by the artists interviewed in this study and as existing contemporary scholarly theories which could inform cultural change towards sustainability.

That contemporary practicing artists are threading important networks through their creative projects, **conviviality** can be explored as an important socioecological model, theoretical concept and ontological aide in understanding how connections can be made across sociopolitical, environmental and geographic difference. A convivial lens can help to locate the importance of informal and public education in transforming societies. As a practice, conviviality can be applied through creative means (i.e. poetics) to make connections between seemingly disparate ideas, as well as across both human and more-than-human communities. There is great potential for exploring convivial modes as bridging the conceptual divides between nature and culture, and science and art. Where the artist, as connector, can pattern relationships through both tactile and conceptual “making” of stories, an exploration of convivial practices in informal spaces and public geography is encouraged.

As a creative pedagogical concept, **curiosity** should be explored as a position for open-ended dialogical— and multi-logical— transformative learning processes. Paulo Freire’s advocacy for action-based cultural work is a key quality to this thesis work, in which transformation of an emergent self to foster self-knowledge is considered foundational to cultural transformation. This study found value and emphasis on *non-didactic* forms of teaching and “soft debate”, in which the student, learner, participant, or viewer is empowered to develop their own ecological sensibility through self-inquiry. Where the artists in this study view their work as

asking open-ended questions, artists and practitioners with an environmental axis in their work are encouraged to look to modes of learning through interacting with the EE frameworks and pedagogies described in this research, i.e. those of Freire (1998), Illeris (2017), Martusewicz et al. (2015), Foster et al. (2018), and Kagan (2014).

Finally, artists, researchers, and educators doing environmental work should draw from the scholarly concept of **care** as a practical concept. Incorporating care as a radical practice can encourage a deeper sense of engagement between researcher and research. Environmental humanities scholar Thom van Dooren (p. 294), speaks directly to the theme of care in his question: “what might it mean to be inquisitive about, at stake in and accountable for, the worlds that ground our care and those that are brought about by it; to engage in a scholarship that embraces the fact that caring is always a practice of worlding?” Research which positions itself through the framework of worlding self and other, i.e. embodied and enacted processes in which the individual co-emerges and transforms with the world, are important in work that seeks to envision new sustainable futures and cultural imaginaries (Palmer & Hunter, 2018). Works such as those of Bruno Latour (2004), which emphasize knowledge as embodied cultural practices, and the importance of *learning to be affected* and put into motion by the human and more-than-human world. Gatherings such as the International Conference on Art in the Anthropocene (Trinity College Dublin, Ireland, 2019) show a flourishing body of art and scholarship working both within and beyond our current cultural epoch through transdisciplinary frameworks which bring in the intersection of environment and embodiment.

4.4.2 Adopting an a/r/tographic method of inquiry: expanding research practices

Research practices which enable a re-imagining of “what counts” as research will be important: i.e. adopting an understanding of the myriad forms of knowledge production and environmental communication. One major takeaway from this work

can be the ways in which the scholar can learn from the a/r/tography framework of inquiry, adopting the triptych of artist-researcher-teacher, or intimately joining poiesis with theory and praxis (Irwin, 2004). Notions of environmental research could expand from strictly empirical study to that of mixed method inquiry (ex. narrative, descriptive, ethnographic, and phenomenological approaches to in depth semi-structured interviews) with self-inquiry (auto-ethnography and field noting). Future research and researchers should be encouraged to draw from, and engage with poetics in order to strengthen research, i.e. drawing in the “third other” of poiesis with theory and praxis as a site of transformation (Irwin, 2004). Researchers can look to the artist-researcher-teacher frameworks of inquiry (Figure 7) and frameworks of arts-based self-making-with-environment (Figure 14) which developed as a result of this research. Where artist participants were found to view their arts practice as a form of valid investigation and inquiry, an understanding of the artist *as* researcher opens up a rich possibility of study in different modes of knowledge production and cultural transformation.

4.4.3 Adopting the framework of self-making-with-environment: self and place as a twofold impetus for change

An engagement with poiesis and sym-poiesis (“making-together”) further allows artists, scholars and practitioners alike to understand how “making art” and “making change” is a conceptual device which both validates existing art-environment entanglements while at the same time opens up the space for future practices.

The emergent framework of self-making-with-environment (auto/eco/poiesis) can encourage socioecological transformation through making-with-place and self-making, which could lead to wider-than-self change within the socioecological community in which the artist is embedded. Figure 14 shows visually how through sympoiesis and creative self-inquiry, the artist can transform both self and the wider natural-cultural community towards sustainability. Adopting this

understanding will emphasize the importance of developing an intimate sense of place, i.e. conducting inquiry which examines oneself in response to the artist's immediate milieu and surrounding environment, approaching the vernacular landscape as a multiplicity of environmental histories of both natural and cultural forces.

4.4.4 Using art practices to address the Western conceptual split

A major theme found in interview data was the need to bridge the perceived gap between humans and nature, in which humans are seen in Western cultures as both alienated from and mistakenly superior to "nature". A desire by artists to point to and highlight the cultural narrative scholars have called the Western dualism was found across artists' creative depictions and spoken descriptions. Contemporary artists are cultural first responders, and as Maldonado, Meza, & Yates-Doerr (2016) may put it, they are "in this time of the Anthropocene... reworking the b/orders of human and nature." Engagements with both the theoretical literature addressing the conceptual split between human and nature, as referenced throughout this thesis, as well as an indorsement for the ways in which art could play a role in transcending cultural narratives around human-nature categories and transforming our cultural assumptions around nature, extraction, and growth bear great potential in continued work in cultural transformation towards more sustainable futures. Exploring the role of art in decolonizing Western culture's relationships with nature should be prioritized.

4.4.5 Using art as a mode of storytelling and cultural re-narration

Many of the artists in this study conceptualized their work as a form of storytelling i.e. expressing the role of art as narrative and art pieces as utterances which seek to re-tell cultural stories. Artists use informal, open-ended means of re-examining singular, linear stories of environmental destruction, questioning dominant cultural assumptions and worldviews around what constitutes "environment". Art

processes can serve as a way to imagine tales of more livable futures, and open up possibilities of re-envisioning humans' place in the world. The importance of art as a mode of storytelling to draw public attention to current climate concerns should not be discounted. The application of artistic practice as a form of communal storytelling should be considered central to social justice agendas. An emphasis on art as telling local and situated stories and engaging with a "vernacular" landscape will bring in more multivalent ideas of biodiversity, cultural pluralism, and the lesser-known, invisible social histories of a places: stories which are crucial in addressing systemic issues of social and ecological oppression.

4.4.6 The need for multi-sensory environmental communication and art as a nonverbal interaction

This research hopes to make it clear that the role of intuition, imagination, sensibility and the body in the communication of knowledge must not be ignored (Kagan, 2014). Art is one of the best possible means to accessing multiple modes of interpreting the world and transmitting knowledge through engaging the five senses. Environmental artistic practice, research, and education which seek to better use all senses (in particular, the more-than-visual senses) to experience ecological connections will be important. Many of the artists in this study sought to use multiple modes of sensorial engagement to investigate, produce, display, and engage their artwork. Interdisciplinary art projects which combine aural and kinesthetic learning with visual elements played a huge role for many of the artists in this project, in order to translate scientific information into embodied knowledge. Modes of deep listening practices (i.e. soundwalking, field recording practices and place-based listening meditations) and art practices which use tactile means (ex. using sense of touch to engage with water, plant-based & natural materials) as a means of transforming one's relationship to the environment were found to be of high artistic interest in the interviews, and show potential for further exploration.

4.4.7 Moving with and beyond sustainability discourse

While art practices elicit often non-verbal and non-textual language, and instead evoke embodied, presentational, and emotional modes of communication, there is, no doubt, a verbal and written artistic lexicon which artist participants are comfortable using, describing certain key concepts in the research interviews. Most of the artists in this study did not primarily associate “sustainability” with their own arts practice, hinting at a skepticism around the “green”-washing of capitalism, and the overuse of the word as a placeholder. Artists did, however, accept the importance of sustainability discourse and sustainability as a descriptor for examining their own use of physical art materials, as well as understanding the importance of using “sustainability” as a research takeoff point into critical ecological conversations. In terms of the ways in which they viewed their own work, artists tended to choose words and concepts such as stewardship, embodiment, relationships, reciprocity, resilience, cultural survival, social practice, place-based/community-based art, site-specific art, and land-based art. Environmental researchers seeking to explore art-environment-science intersections are encouraged to adopt these words in their cultural lexicons, as well as to expand keyword searches to include these ideas as keywords in catalogues, articles, and research databases.

4.4.8 Transdisciplinarity & thinking with the assemblage

Disciplinary isolation can be a major barrier to wide-scale, wide-reaching, effective environmental work. Many artist participants described their projects as interdisciplinary by nature, in that their works were heavily informed by current environmental science, scholarship, education, and activism. Artists expressed a need and desire to continue to work with scholars, activists, scientists, and educators. Furthermore, artists’ projects were often based in communities which extended beyond the insularity of the contemporary art world, and were often responsive to the dynamic socioecological interplay of their community and

bioregion, i.e. developing an intimate and emotional connection to one's socioecological "place" as a shared area of geographic and conceptual, natural and social territories.

This research encourages the continuity of this kind of thinking: what Sacha Kagan (2014, p. 8), through engagements with systems thinking theory, names transdisciplinarity: "that which *is* at once *between* the disciplines, *across* the different disciplines, and *beyond* all discipline. Its goal is *the understanding of the present world*, of which one of the imperatives is the unity of knowledge."

Transdisciplinarity allows the existence of many different levels of reality and kinds of logic, which can be fostered through deep dialogue and bridging of art and science. It further bears some parallels with communities of praxis, defined as "theoretically-informed practice of a diverse set of actors (which include an important role for academics) who share environmental concerns, collaborate, and co-produce knowledge in order to guide ethical action for earth stewardship" (Osborne, 2017, p. 849).

Furthermore, assemblage theory shows great potential in supporting new configurations of transdisciplinary environmental research and practice. As defined by Anna Tsing (2015), assemblages are open-ended gatherings which broaden traditional environmental studies by engaging political ecology and "worlding" processes through examining human and more-than-human, living and non-living elements of the environment. The research assemblage, as "patches of entangled ways of life in which we can sometimes find unexpected patterns and rhythms" casts groups and places not as fixed and stable but as in states of continuous change. Assemblages as cross-disciplinary research groups can, and should, be composed of disparate and dissonant ideas: sometimes these ideas work out together, sometimes they thwart and challenge each other, sometimes they simply exist in the same space. As work which spans the space between art/humanities, environment and sciences, a "thinking with the assemblage" will be useful in the

application of transdisciplinary research. As artist participant Ayelen Liberona put it:

...[collaboration] really fermented for me a deeper seeing of how Arts as a practice can collaborate with science, with academic thinkers, in a way that it sort of gives rigour to the art, and softens the academic. In that fusion there's a kind of... offering of we might not yet know, or be able to explain certain phenomena and in there, art has the capacity to inspire, to guide, to offer a way into the unknowing, into the not known, let's say...that artists and imagination might spark that for academics to see otherwise and hopefully then, with their rigour, find new ways of knowing.

4.4.8.1 Putting the assemblage into practice: “Nature as Communities” example

One of the ways in which the assemblage can be tangibly practiced may be found in the example of the *Nature as Communities* group art show exhibition, one of the offshoots of this research, and a tendril trailing out from this Master’s work. Through support from the Dalhousie Art Gallery, we developed an institutionally-funded group art show, featuring the works of several of the artist participants in this study, exhibited from May-July 2019 (See Appendix B). As a composition, *Nature as Communities* was another less traditional form of presenting knowledge, showing the intersections of artists’ stories or earthly utterances as *polyphonies*, where many voices, human, non-human and atmospheric, intertwine and guide us to hear “how all kinds of social landscapes, whether in cities, forests, or global institutions come to emerge” (Tsing & Ebron, 2015, p. 683). The gallery can be understood as what Tsing (2015) calls a “patch”, an open-ended assemblage in which ideas can tangle with and interrupt each other, a space that can facilitate acts of re-translation in the context of research. Art galleries and artist-run centres can help to showcase the environmental work of artists through exhibitions, artist talks, catalogues, and residencies. In *Nature as Communities*, I took the traditional monograph expected for a Master of Environmental Studies thesis, and used presentational modes of showing knowledge by launching it on the walls and into a space that can become a physical experience- one that offers a visceral, multi-

sensory and embodied experience that can also resound outside of the gallery space into the wider communities. As a polyphonic composition, *Nature as Communities* presents some of the ways that artists, through creative sympoietic practices, are helping to re-story notions of what nature means, what it means to live and make in the so-called Anthropocene. By offering glimpses into variously lived, felt, heard, observed, and embodied experiences of nature, each of these stories brings us into contact with the possibility of more livable futures for the many biotic communities living on the planet.

The exhibition further emphasizes an ethic of *reciprocity* between researcher and respondent, which is considered integral to decolonizing research methodologies (Tuhiwai Smith, 1999). Artist respondents were both given the opportunity to discuss and present their work in a potentially new-to-them medium (scholarly work and papers), as well as to showcase some of the participants' projects in a funded gallery setting. Moreover, a result of this transdisciplinary project— which brought in individuals from the Dalhousie Environmental Sciences Department, the School of Resource and Environmental Studies, NSCAD University, the Dalhousie Art Gallery, and a myriad of artists and arts collectives across the country— the Dalhousie Art Gallery purchased one of the Kinngait (Cape Dorset) youth-made snow machine sculptures showcased in the exhibition (pictured in Figure 6, top left), for its permanent collection. This knots one of the threads in the netting of the ongoing Kinngait community arts project, wherein the sale of the sculptures enables the community of Kinngait youth to purchase actual snowmachines and the project is not considered “complete” until the youth are out on the land being pulled in qamutiit (sleds) by the new snowmobiles.

4.4.9 Accessibility of art: Moving beyond the confines of the formal educational spaces and institutions

While galleries exist as potential spaces to express less traditional academic forms of environmental knowledge, it is equally as important to extend beyond the

institutional space in order to realize the goals of stewarding community and engaging transformative cultural practices. While galleries, residency programs, museums and cultural centres can play a major role, many of the on-the-ground projects artists are enacting exist completely outside of traditional institutions, in an effort to remain accessible to the “layperson” and true to the values of social practice. Many of the artist participants in this study expressed a need to avoid “preaching to the choir” through their work, i.e. engaging the already-engaged or convincing the already-convinced, as well as expressing a need to avoid didactic/prescriptive messaging about environmental problems. Looking to the conceptual frameworks of conviviality, curiosity and care defined in this study can enable artists to help lead work more widely and accessibly, across difference with diverse communities, towards cultures of sustainability, livability, and justice. As a predominantly informal learning process, art, as a socioecological engagement, bears great potential to exist in and transform spaces which facilitate daily experience such as in the marketplace, the library, the community centre, or popular media (Sterling, 2014; Fincher & Iveson, 2015). Osborne (2017, p. 845) suggests “public geographies” including participatory action research and mapping, service learning, and social media as potential spaces for transformative EE. Artists seeking to engage social practice are encouraged to engage with these public geographies and informal spaces in order to increase the accessibility of both the participation with and adoption of environmental arts practices.

4.4.10 Future research considerations

While this work sought to answer the research questions of how a contemporary arts practice can foster change towards sustainability, there are many unanswered questions and therefore opportunities for future work by scholars and artists alike. As described in Section 4.2, the confines of this Master’s project left out many potentially rich results. Some considerations for future research which emerged from the data include: exploring the relationships between artists and their personal development of / connection to a “sense of place”; exploring how

contemporary art and arts as social practice can foster a decolonized praxis; examining the role of feminism in contemporary environmental arts practice and exploring the gender gap in ecologically-responsive art works; comparing the Canadian environmental arts contexts with those of other countries (ex. European countries with a history of more established environmental arts programming); documenting audience responses to environmental arts practices and a methodical comparison of community perspectives to those of artists and social practitioners; conducting in-depth arts-based inquiry at Canadian environmental arts residencies (i.e. the White Rabbit Arts Residency, Art Ayatana, or the Banff Centre of the Arts); evaluating the current artistic orientation of environmental educators, documenting artistic literacy of the environmental sector, and exploring the potential for the application of poetics; and a systematic documentation of projects which intimately bring in arts-science collaboration. The study/development of Artist in Residency Programs at universities (such as that in the Environmental Sciences program at the University of Guelph described and curated by respondent Julie Rene de Cote) can further be a site of academic exploration.

4.5 Epilogue: an open-ended ending

In an era swollen with digital dazzlements and techno-utopian fantasies, all who ally themselves with the wild, more-than-human earth are called to become adepts of outrageous creativity and embodied eloquence, masters of lucid improvisation.

-David Abram, Alliance for Wild Ethics

When I began this research project in mid-2017, I was eager and excited about the prospect of doing work that lived at the sweet spot of art and sustainability. It seemed like a timely and straightforward union of two ideas that both reflected my life's passion and some long overdue scholarly care. That I—a wide-eyed, 20s-something grad student— was handed the opportunity to give this area of research some needed attention seemed like a cerebral gift from the gods (or cool-as-heck thesis supervisor and open-minded funding panel).

Most Master's students admit a naive unpreparedness for the revolutions their projects undergo. It is a popularly discussed topic in graduate seminars and research methods classes. For me, no doubt, this became very true: the thesis grew like a very hungry Venus fly trap. My bedroom office began to feel like the little shop of horrors. I fed the beast: ideas, and then bigger ideas; theories, and then other theories from which those theories drew. The thesis became its own voracious, creaturely thing, bending around the barriers of time and space, climbing towards the sun: the light at the end of a two-and-a-half-year tunnel, towards the distant but fateful "day of defence".

This is all a very common experience; professors will tell their students.

I suppose what I was least prepared for would be the personal turns I'd eventually take as a result of the work. There is so much to be said for the slow internal changes that come about in one's personal research. What I mean by this is: as a qualitative researcher, you simply can't listen intently to hours and hours of artists talking about their deepest environmental concerns, fears, questions and

inspirations—listening back on hours-long conversations at 0.5 speed with noise-cancelling headphones— and *not* feel pretty deeply changed yourself by the end of it all. Self-transformation is one of the “realest” results I think that comes from the pursuit of knowledge— even in rigorous academic research— and if there is one thing this Master’s project has made absolutely clear for me, it’s this reality. And for me, a very changed reality.

While my research focuses mainly on the work of contemporary visual artists, ironically the greatest skill I think I brought to the drawing table was *not* my ability to draw grand conclusions or map out the country’s current eco-arts scene, but my attempts to, first and foremost, *listen*, and secondly, to *perform improvisation*. My role here was to have the willingness to pin back my ears and tune in to the ways in which the creative cultural workers of the world are in a dynamic interplay of both working with what we’ve got while imagining and crafting new possibilities.

Anna Tsing thinks about research as an open-ended assemblage: where different ideas, discourses, and historical practices can encounter, tangle with and interrupt each other. Tsing also uses a very “sound” musical analogy: *polyphony*, in which two or more independent rhythms and lines come together in intricate and always-changing ways. These multiple melodies reveal surprising moments of harmony, patterns, and co-ordination, while at other times they reveal discordance and sonic chaos. In an interview on “writing and rhythm”, Tsing (2015) further describes this. She says:

I hear rhythms in the world, and music helps me understand them. When I began working on multispecies anthropology, I found a great source of insight in polyphonic music, that is, music in which multiple melodies intertwine. Each melody carries its own rhythm, and the whole is created in listening across the engagements and interruptions of the varied melodies. This helped me understand how humans are actors, but not the only actors, in making social landscapes. Many ways of life come together in landscapes. Their relationship is something like the separate voices of polyphonic music. Polyphonic rhythms, then, may be useful in listening to how all kinds of social landscapes, whether in cities, forests, or global institutions, come to emerge.

As a drummer and percussionist, the analogy of polyrhythms and polytempos has been especially resonant with me. In performing improvised music with various ensembles, we attune and attend to the overlay of patterns and rhythmic cycles, finding moments of beautiful togetherness while remaining open to inevitable disharmony and dissonance of the piece— appreciating it without losing ourselves to it.

In the nineties, educational researchers Penny Oldfather and Jane West (1994) wrote an article in which they playfully examined the metaphor of jazz to describe qualitative inquiry. They described several parallels between performing jazz music and performing qualitative research. As a form of creative music, jazz is constantly adaptive, shaped by the participants themselves. Improvisations are interdependent, and the quality of the composition depends on each musician actively listening, responding to, and appreciating the ensemble. With its roots in the spiritual emancipation of black communities, jazz is an art form which seeks to exist as cultural expression and dialogue, as opposed to producing a packaged “piece of art”. Jazz and qualitative research can hold an ethic of accessibility and empowerment, by drawing in the cacophony of varied lived experiences and worldviews. Furthermore, those who have been traditionally the “researched” can themselves become the “researchers”.

Free jazz improvisation does not rely on the reading of sheet music, but rather relies on an adept sense of understanding the deep structures of the music and giving oneself the freedom to both let go and apply those deep structures in improvisatory ways. The researcher in qualitative research, similarly, does not have a clear set of step-by-step “instructions” in conducting research. In both jazz music and qualitative research, there is often a basic “score”, i.e. a set of principles or a research design, while at the same time the score is an outline and must constantly adapt to and elaborate on the evolution of the inquiry. It is both structured and free.

Artist and jazz drummer Jerry Granelli argues that an improvisation between two performers is not merely a dialogue between two players. He argues that in the

dynamic interplay of the duo, another player emerges: a “third other” whom only exists in the relationship between each respective player’s creative agency. First and foremost, the players play to serve the composition. This simple but profound idea, to me, is *sym-poiesis*. It is making-together. It is polyphony; it is an open-ended assemblage. It is saying: we are greater than the sum of our parts. It is the reminder that, as Paulo Freire put it, “*we are genetic-cultural beings. We are not only nature, nor are we only culture, education, and thinking.*”

I take from these musical metaphors, where as someone “conducting” research, I aim to be one who listens, responds to, and appreciates the polyphony of stories; the many intertwining melodies of my participants. In this thesis I attempted to hear, convey, and value the ways in which artists are sounding alarm bells about climate change, vocalizing change through poetics and their creative acts of making, while also remaining a part of a chorale that can revel in humanity’s beautifully entangled, dishevelled, imperfect and ongoing relationships with the more-than-human world. Like a sound engineer, as a researcher I “mix” the stories and aim to produce clarity through a balance of voices. My hope is that this research is a kind of lucid improvisation: an act of translation— or series of translations— where I listened to the stories artists tell about them-selves and their worlds, hearing their artwork as stanzas in an ongoing and overlapping round of call and response. I am not just a passive recipient of these stories. To take from Augusto Boal’s Theatre of the Oppressed, I move from mere “spectator” to “*spect-actor*”, in which I am observer but also active creator of meaning. Both performer and audience, researcher and respondent, are collaborating on the piece. Both performer and listener are in a process of transformation. *Sym-poiesis*.

My hope is that this thesis can be understood as a composition: one that is sometimes directional and other times dissonant; one that both contributes to and complicates current environmental research. As a thesis that looks at environmental studies through the lens of art and education theory, it not only lives at the juncture of nature and culture, but seeks to transform the ways in which we

view this binary to begin with. To say the work is a static thing living at an intersection— an idyllic grove that somehow unites society and nature— now feels misleading. In fact, my work hopes to, in some sort of small, slight way, transform the ways in which the two are considered distinct to begin with. If there's one thing that feels like a very made-by-man artifice, it's this obsession with the divide between nature and culture. What does a world beyond this divide-and-conquer mentality look like? What does it feel like? What does it sound like? How can *poiesis* bring us to this understanding?

It is through poetics— and because of the artists I listened to in this research— that I can begin to imagine the possibility of a world that is more reciprocal, livable, sustainable and just. To hear the relationality of our stories; to listen to the reverberance of nature *as* culture, to understand that every creative act is an ember that stokes this knowing; to build a kind of empathy which can echo across our social landscapes; to embody the adaptive interplay of the human and more-than-human world; to feel the great swells and slow diminuendos; to notice the delightful and momentary arrangements and de-compositions of our own existence.

The last (but not final) thing I want to say in this sprawling epilogue is that there is no ending. There is no imagined “last hurrah” to this research, no grand finale existing on some hazy horizon. Perhaps the most important principle in improvisation is the need to make open situations for your collaborators: to offer creative space in which other players, too, can make creative choices in the piece. To ensure your fellow players have agency to contribute to the composition.

Art plays such an important role in throwing us, our habits, and our routines out of kilter— to provoke us to improvise, to open up new possibilities, to change our perception, to uproot our deep-seated cultural assumptions, and to offer the possibility for transplanting these worlds. Fundamentally, art is a learning experience which is open-ended. For this reason, I maintain that this ending is

really a non-ending. This research remains open-ended: it hopes to make open situations for others, to create the possibility of continuing and contributing to the piece. After all, as jazz vocalist and composer Jay Clayton says: “we are always composing”.

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Appendix A: Participant consent form



Participant Consent Form

For participants in the research project entitled:

“The artist and the environment: the intersection of the arts, sustainability, and environmental education”

Jennifer Yakamovich, Candidate, Masters in Environmental Studies
c) 902-292-8154
jen.yakamovich@dal.ca

Supervisor: Dr. Tarah Wright, PhD. Environmental Science, Dalhousie University
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Introduction

We invite you to take part in this research study, entitled “The artist and the environment: the intersection of the arts, sustainability, and environmental education”, being conducted by Jennifer Yakamovich as part of her Master’s degree in Environmental Studies at Dalhousie University. Your participation in this study is voluntary and you may withdraw from it at any time before the data analysis stage in June 2018. The project description below tells you about any risks, inconvenience, or discomfort that you might experience as a participant. Participating in the study may not benefit you directly, but the insights that you give may benefit others. Publications which stem from the study may additionally draw attention and exposure to your artistic work. Please feel free to discuss any questions you have about this study with Jennifer or her supervisor, Dr. Tarah Wright.

Purpose of the Study

We are asking professional artists whose work reflects themes of environmental awareness, sustainability, or ecological justice, and who have advocated on behalf of the environment through their practice, to talk about their experiences and process. By collecting the experiences of a number of people like you, we will

explore the potential of art as a means of environmental education and communication. We will pull together common ideas and insights that can potentially help other researchers, practitioners, educators and artists to locate concepts associated with arts and environmental education, and to understand the potential role the Arts play in transformative environmental education.

Study Design

You are being asked to participate in a one-on-one interview that will last about 45 minutes. This interview will take place via phone, Skype, or in person (where practical) and will be recorded (audio only). It will later be transcribed, and you will have a chance to review the transcript to make sure that it is accurate and properly represents what you wanted to say. The research team will then make use of analysis software to tag the ideas that come up in the interviews, to locate themes, ideas, and patterns.

The Participants

We are interviewing visual, contemporary, and performing artists who work at the intersection of the arts and the environment. This environment-based criteria is open and up to the artist, but can include (though is not limited to) any of the following themes: bioremediation, climate change, earthwork, ecology, ecological justice, environmental awareness, environmental communication, environmental issues, environmental justice, feminist ecology, human-animal relationships, human-nature relationships, indigenous perspectives of the environment, land art, political ecology, queer ecology, socio-ecological issues, and sustainability.

Who Will be Conducting the Research

Jennifer Yakamovich, a student in the Master's in Environmental Studies program at Dalhousie University, will be conducting all of the research activities and will be the main contact person. She will be conducting, recording, and transcribing all of the interviews. She will also contact you after transcribing your interview so that you can read it and clarify any points if needed. She will analyze the data and in collaboration with her supervisor she will develop publications and reports associated with the research. She will also re-contact anyone whom she quotes in these writings, to show them the context in which they are quoted and to get their approval. Similarly, she will also re-contact artists whose artwork images she includes in the thesis or publications, with approved credit and permission. Jennifer is working under the guidance of her supervisor, Dr. Tarah Wright, an expert in the field of education for sustainability and a faculty member at Dalhousie University. Dr. Wright will have access to the interview data that is collected, as will other members of Jennifer's thesis committee. You will likely not encounter these

university faculty members, but Jennifer will be discussing all aspects of the project with them. All members of the supervisory committee will adhere to the ethical stipulations of this study.

What You Will Be Asked to Do

Jennifer will arrange an appointment at your convenience to conduct an interview that will last approximately 45 minutes-1 hour. You can decide how you would like to be interviewed – on the phone, via Skype, or in person. Each of these options is outlined below:

Jennifer is located in Halifax, Nova Scotia, so for many of the participants, an **in-person** interview may be impractical. However, if you are in the Nova Scotia area and do choose an in-person interview, it will take place at a quiet and comfortable location of your own choosing at the time you agreed upon.

If you have a **Skype** account and a camera hooked up to a computer, you may wish to use Skype so that you can see your interviewer through the video link. This is entirely up to you, however, and using video will not make a difference to the recording of the interview, which is audio only. You will need to choose a quiet comfortable, location for your interview and provide your Skype contact information, plus a phone number in case the Skype connection is lost. Jennifer will dial in at the time you agreed upon. If you choose to be interviewed by **phone**, you will need to provide a contact phone number at a quiet, comfortable location of your own choosing. Jennifer will dial in at the agreed-upon time from either a Skype-to-phone connection or a conventional phone number. You will want to make sure that you are using a telephone that does NOT charge you for incoming calls – if you wish to use a cell phone, you will want to verify that ahead of time so that you do not incur any unwanted expenses.

Your interview will be recorded on two digital audio recorders at the same time, to ensure back-up if one fails. The interview questions will all be open-ended, meaning that you are free to elaborate on your answers as you see fit. There are no “right” answers, just your own perspectives. You will be asked about environmentally-related questions in relation to your artistic practice. You are free to skip any questions. You can also withdraw from the entire study at any time before the data analysis stage in June 2018.

At a later date, when your interview has been transcribed, Jennifer will give you the opportunity to review your transcript (you can choose to do this or not, but it is an opportunity for you to clarify your answers should you wish). Also, if direct quotes are taken from your transcript for the purpose of publications, Jennifer will contact you to show you the context in which you are quoted, to make sure you are satisfied with it. This should take a few minutes of your time. Similarly, if images of your artwork are included, they will be done so with your permission and credit.

Anonymity, Confidentiality, and Privacy

We cannot offer anonymity to you or any of the other participants. Because your profile as an artist can be visible to the public, especially your artistic output, the things that you say in this study could potentially identify you. The information that you provide may be specific to your artwork. For this reason, we cannot guarantee that we can separate your comments from your identity. Your insights are very valuable, but we do not seek very private information and would encourage you to say only things that you are comfortable saying publicly. If, in communications with the interviewer, you wish to make a private comment, you will need to explicitly say so, and the comment will be taken out of the record and the study completely.

The audio recordings from the interview will be loaded immediately onto Jennifer's laptop, onto an external hard drive, and onto a computer housing analysis software in the locked laboratory of Dr. Tarah Wright. The original audio files on the two digital recorders will be erased after they are transferred to these devices. The laptop, the external hard drive, and Dr. Wright's lab computer are all password protected and will be locked away when not in use. Under no circumstances will anyone outside of the research group be allowed access to the research files, including the media. Additionally, out of respect for the privacy of the participants, the research group will not call external attention to the interviews or the interviewees during the course of the project, and will only discuss the project in appropriate academic contexts during this time. The results will be made public only after the study is complete.

Possible Risks

There is minimal risk in participating in this study, meaning that there is no greater risk than in your normal daily life. There is a low risk of negative social consequences if you choose to openly criticize a person or an organization in your commentary and that commentary becomes public. You are free to express your thoughts using your own discretion, in the knowledge that your comments are not anonymous. You may have made similar choices in the past when advocating for a particular cause in your public life.

Possible Benefits

It is hoped that your insights, along with those of other artists, will help provide ideas and guidance for researchers and other artists. It is hoped that this study will be published in journals, reports, and publications so that many people can access it. It is hoped that your artistry may receive recognition and exposure in a new forum. It is hoped that you find it an enjoyable experience to share your ideas in an

academic forum. Finally, it is hoped that this study will encourage the feasibility of art as a means of transformative environmental education. At the end of the project, Jennifer will provide participants with a brief written summary of results for their own interest. Any participant who expresses a desire to have an electronic copy of any academic papers that result from this study, and/or a photocopy of the final thesis, will receive these items.

Compensation / Reimbursement

No monetary compensation is offered for participating in this study. Your participation in this project may lead to future showcasing of your work. It is not expected that you will incur any expenses for participating. Reimbursement for travel time within Nova Scotia can be offered.

Questions?

If you have any questions about this study, you may call (collect) or email at any time:

Jennifer Yakamovich c) 902-292-8154 jen.yakamovich@dal.ca

Or

Dr. Tarah Wright w) 902-494-1286 Tarah.wright@dal.ca

You will receive a copy of the signed consent form for your records and information before the beginning of the interview.

Problems or Concerns

If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, you may contact Catherine Connors, Director, Research Ethics, Dalhousie University at (902) 494-1462, ethics@dal.ca . Collect calls will be accepted.

Signature Page

For participants in the research project entitled

“The artist and the environment: the intersection of the arts, sustainability, and environmental education”

Please read the following statement carefully. If you consent to participate, as the “I” person in this agreement, please print your name in the first blank space, check the boxes, and add your signature and date at the bottom.

“I, _____, have read the explanation about this study. I have been given the opportunity to discuss it and my questions have been answered to my satisfaction. I hereby consent to take part in this study. However I realize that my participation is voluntary and that I am free to withdraw from the entire study at any time before the data analysis stage in June 2018.

I agree to allow the audio recording of my interview.

I allow myself to be re-contacted to review my transcript and clarify my points.

I allow myself to be quoted with attribution, after being given the opportunity to see the context of my quote.

I allow images of my work of my choosing to be used, with appropriate photo credit given. The, after being given the opportunity to see the context in which they are used.

I waive my right to anonymity and confidentiality in this study, with the understanding that my identity forms an important part of the data.”

Signature _____ Date _____

Signature of Principal Investigator _____ Date _____

This is the script the PI will read prior to the interview to gain oral consent from the participant, should they choose to opt for oral consent over written consent, after having been given time to review the Participant Consent Form, sent to the participant prior to the interview.

PI: Before we begin, this study requires participant consent, as indicated in the Consent Form which you received in our prior correspondence. You chose to give verbal consent over written consent. By giving verbal consent, you agree that you have read the explanation about this study included in the Participant Consent Form. You agree that you have been given the opportunity to discuss it and your questions have been answered to your satisfaction. You are aware that your participation is voluntary and that that you are free to withdraw from the entire study at any time before the data analysis stage in June 2018.

Additionally, by giving verbal consent, you agree to:

- allow the audio recording of your interview.
- be re-contacted to review the transcript and clarify any points.
- be quoted, after being given the opportunity to see the context of my quote.
- allow artwork-related images of your choosing and with your permission to be used, with appropriate photo credit given,
- waive your right to anonymity and confidentiality in this study, with the understanding that your identity forms an important part of the data

Do you hereby consent to take part in this study? Do I have your permission and consent to continue with the interview?

Appendix B

The following essay was written by the author in collaboration with the Dalhousie Art Gallery as the lead panel for the *Nature as Communities* exhibition, showcased at the gallery from May-July 2019.

Nature as Communities

Who or what is nature? What ideas and stories have informed our notions of nature and the natural environment in Canada? Who and what may appear in our designations of “Nature”; who and what is left out? How may we access silenced or unsung stories of environmental knowledge? What might we learn when we tune in to some of the many rhythms of such stories?

In her essay “Earth as Ethic”, environmental philosopher Freya Mathews writes:

...in this very hour of our greatest moral need, a new story is coming into view, a story made visible by the environmental crisis itself. This is the story of the earth, of the biosphere. It is a story of stories, a larger story made up of a vast intersection of little stories.

Environmental anthropologist Anna Tsing thinks about the intersections of these little stories or earthly utterances as *polyphonies*, where many voices, human, non-human and atmospheric, intertwine and guide us to hear “how all kinds of social landscapes, whether in cities, forests, or global institutions emerge.” As a polyphonic composition, *Nature as Communities* presents some of the ways that artists, through creative place-making practices, are helping to re-story notions of what “nature” means. By offering glimpses into variously lived, felt, heard, observed, and embodied experiences of nature, each of these stories brings us into contact with the possibility of more sustainable and livable futures for the multiple biotic communities living on the planet.

In her writing on the confluence of environment and social justice, environmental justice theorist Giovanna Di Chiro proposes that building sustainability requires us to challenge colonial constructs of nature and environmentalism by drawing connections between natural and cultural histories.

Ideas of nature, for environmental justice groups, are tied closely to ideas to community, history, ethnic identity, and cultural survival, which include relationships to the land that express particular ways of life.

What Di Chiro describes as a “revisioning of environmental history” involves both “reinventing nature through community action” and representing nature *as* community. These are, at once, important acts of care and political gestures; they demand new ways of interacting with each other and with every other element on earth. Such critical, interventionist, and decolonizing practices also characterize the work by the artists featured in this exhibition.

Towards Something New and Beautiful + Future Snowmachines in Kinngait is an installation initiated by the Toronto-based artist duo PA System (Alexa Hatanaka and Patrick Thompson) as a collaboration with Kinngait youth involved in the Cape Dorset-based “Embassy of Imagination” (Christine Adamie, Lachaolasie Akesuk, Moe Kelly, David Pudlat, and Nathan Adla). This ongoing project is a locus for community engagement as well as a fundraiser for the school district’s Land Program, both of which will better allow the Kinngait youth to access their land, culture, and knowledge shared by their Elders. The multi-layered installation includes four “dream snowmachines” that were cast from aluminum salvaged from the burned remains of the community’s Peter Pitseolak School, and based on homemade flour-and-water playdough models that the youth had fashioned during workshops with PA System. The sale of these sculptures will enable the youth to purchase actual snowmachines; the project is not considered “complete” until the youth are out on the land being pulled in qamutiit (sleds) by the new snowmobiles. *Towards Something New and Beautiful* underscores the need for ongoing dialogues around the colonial legacies that continue to sever ties between community and land, while highlighting how “sitting with your own creativity can create change for yourself and your community; how through your art-making, your own hands can allow you to imagine a different future for you and your peers.”

Re-imagining futures in her fragile cut-paper drawing series “*That Sinking Feeling*”, Indonesian-born, Vancouver-based Diyan Achjadi incorporates speculative fiction and cross-cultural narrative to examine what it means to live and make art in environmental uncertainty. These works weave patterns emblematic of Javanese mythologies and cultural histories together with imagery suggested by the “inundating” news headlines about the global climate crisis. As “networks of connections that are larger than oneself”, they draw attention to the irony that, like many locations around the world, Jakarta is both running out of and being drowned by water as a result of rising sea levels.

Inevitably, watery connections flow across the oceans and into other communities, such as the Musgamagw Dzawada’enuxw Peoples in the Broughton Archipelago, British Columbia, whose livelihoods have relied on wild salmon for millennia. *Field Guides for Listeners* is an ongoing multidisciplinary research project based on

fieldwork conducted by visual/performance artist Jay White (Nex̄w̄lélex̄m / Bowen Island) and sound artist Jenni Schine (Lewungen territory, Victoria, BC) at a residency at the Salmon Coast Field Station on Musgamagw Dzawada'enuxw territory. Part graphic novel and part sound series, Schine and White describe their work as a “guide for listeners as it helps to identify salmon culture in its natural and unnatural environments.” The soundscape compositions and interviews in Schine’s *Streamwalkers* flow in and around White’s excerpts from the graphic novel, creating an entangled world of salmon scientists, local knowledge holders, sea lice, pathogens, the sea, the land, and the salmon themselves.

The blending of art and science is re-composed (and de-composed) in Toronto-based Natasha Myers and Ayelen Liberona’s *Becoming Sensor*. The multimedia project explores the evolutions of the 10,000-year-old black oak savannah in Toronto’s High Park which, despite forestry management policies, is “struggling to survive... precisely because the Indigenous peoples who gave this land its contours and significance were removed and their fires suppressed.” Through video projections and sound-works based on the duo’s on-site kinesthetic and synesthetic processes of “becoming sensor”, Myers and Liberona “decolonize our sensorium” by paying attention to the ways in which the trees were sculpted by glaciers, wind, water, animals, and plants as well as by the Wendat, the Anishinaabe, the Haudenosaunee, and the Mississaugas of the Credit River, who used fire to keep the savannah alive and open for hunting, farming, and dwelling.

Photographer and filmmaker Sandra Semchuk also invites us to attune ourselves to the songs and stories of human and wider-than-human communities, and to explore various ways of knowing through both observation and reveri.e. *The Trapper* takes us to present-day Prince Albert National Park, while also transporting us into Semchuk’s dream about a trapper. We are asked to consider the ways in which Canada’s colonial history has continued to shape and re-shape the land and its people. *Fishing* and *Tentpointing*, two in a series of photographs created in conversation with her late husband and long-time collaborator, Cree artist, writer, and orator James Nicholas, exist as ‘conciliations’: dialogues within and between generations, cultures, and species.

These conversations take us into a *landscape of language* and the sensuous life-world of Dartmouth-based artist Ayoka Junaid’s “Love Letters to Myself”. Exploring the nature of language through plant-based inquiry and experimentation, and a process of growing, harvesting, and gleaning dyestuff, Junaid slowly transforms paper and repurposed silks into chronicles of a sustainable practice. Her plant-gathering principles are evocative of botanist and indigenous teacher Robin Kimmerer’s “honourable harvest”, in which the earth’s provisions are honoured as gifts. Junaid sees the plants themselves as a community of teachers, much like her foremothers in whose traditions her practice is firmly rooted. From growing indigo in her dye-garden as an ancestral homage, to collecting her deceased neighbour’s hawthorn leaves; from gathering oak leaves at the Gibson Woods Baptist Church, to

exploring the “colonizing” acts of bacterial symbionts, Junaid is imprinting ecological and emotional geographies through acts of embellishment, re-translation, and transformation.

The tales these artists tell are all counter-rhythms: new narratives that challenge colonial ideologies that continue to separate humans from nature. To frame nature as “communities” is thus an effort to repair the conceptual split and broken ties between nature and culture. Artists, as cultural workers, play a role in shaping these reparations as they re-write, re-envision, and re-sound our understandings of nature into those that are more relational, reciprocal, and polyphonic.

The curator would like to thank the following individuals for their mentorship: Michele Gallant & Wes Johnston (Dalhousie Art Gallery), Karin Cope (NSCAD University), and Dr. Tarah Wright (Dalhousie University Education for Sustainability Research Group).

Appendix C

The following is a link to an ArcGIS story map (“immersive stories by combining text, interactive maps, and other multimedia content”) developed by Dr. Tarah Wright’s Education for Sustainability Research Group.

<https://www.arcgis.com/apps/Shortlist/index.html?appid=91f25216bd7245e485c2feba03cc7c99>

The list of artists represented in this study may be found under the “Eco-Art Related Artists” tab (right).