IN DEEPER WATERS:

INDIGENOUS, GENDERED APPROACHES TO SUSTAINABILITY

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A DISSERTATION SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN ENVIRONMENTAL STUDIES
YORK UNIVERSITY
TORONTO, ONTARIO

SEPTEMBER, 2017

Abstract

This work presents a decolonizing methodology toward understanding sustainability in time and place. Methods discussed are experiential and grounded in my own positionality. Therefore, I introduce an intersectional approach, with consideration given to the gendered nature of colonialism, and the centrality of Indigenous women within the struggle—not as an essentialist turn but as an acknowledgement of the links between life's cycles, Indigenous belonging in place and time, and the ongoing renewal of Indigenous pathways. Specifically, I look at the worldview of the Haudenosaunee, my mother's roots, and attempt to illustrate the depths of Haudenosaunee knowledge in addressing sustainable relationality to place and deep time. I describe some of the ways that understanding sustainability through an Indigenous lens had to be done experientially, with brief discussion of methods including ceremony and drumming and a final chapter dedicated to research and community planning grounded in an Indigenous worldview.

Dedication

This work is for my mother, whose seeds and gardens and thanksgiving fires keep this work growing. I also dedicate this to my family at Seven Directions, and to Urpi Edite Valer Pine for helping me at the beginning of this project right through to the end.

Contents

Introduction

A Decolonizing and Gendered Approach to Sustainability Learning

The trajectory (tragedy) of the colonial system has placed human and more-than-human life on a path of destruction that Indigenous Peoples understand all too well. The costs of colonial excess—a death culture—is tangled in memory loss and the subsuming (rather than disappearance) of traditional Indigenous Knowledge. Rectifying these losses requires deeper understanding than Eurocentric environmental theories have been able to provide. It is evident that the temporal and spatial requirements of belonging, understood and enacted by Indigenous Peoples, need to be supported and revitalized in order to create a context of truly sustainable lifeways in the Americas.

The origins of environmental thought, its birthing moment, is, according to Evernden (1992), rooted in the work of Rachel Carson. However, this linear and Eurocentric timeline erases Indigenous origin stories and reveals a temporal and spatial failure of language and meaning. As Evernden writes,

> a rereading of *Silent Spring* leaves one with the feeling that little has changed but the names of the poisons. Even the much-lauded 'sustainable development' sounds suspiciously like the system of environmental management that Gifford Pinchot advocated ninety years ago under the label 'conservation.' (p. 4)

The replacement of Indigenous creation/birthing with Eurocentric origin stories is the root of sustainability's failings. Indigenous women's stories and practices are especially necessary at a time when we need environmental and human wellbeing to center our work. Simpson (2004) articulates the problem, whereby Indigenous Knowledge (IK) and Traditional Ecological Knowledge have been "poorly understood, or entirely

misunderstood" as "settler governments have expressed an interest in learning IK to suit their agendas (climate change, for instance), and have sought to do so on their terms" (p. 75). Further, Simpson's work along with many other Indigenous scholars, shows us the ways that we have to be reflexive as we revitalize Indigenous Knowledge in our own lives. This work necessarily includes recentering the words and stories of those who have been most targeted. A gendered as well as decolonizing approach reveals the importance, once again, of Indigenous origin stories and truths. As a young learner, without the rootedness of language and ceremony, I see the work ahead as learning to learn—to reframe the questions of sustainability and create a methodology and pedagogy that attends to the intersections of colonialism and its undoing.

Notes on Terminology

My positionality as the daughter of a Mohawk woman and English-Canadian man, is complicated by the state-colonial schooling systems that interrupted Indigenous language transmission in my family. A qualification around language is in order as this dissertation is entirely written in English with the acknowledgement that in order to move this work to another level of learning, I have to enter into language learning processes for myself and for my family.

In this dissertation the term *Aboriginal Peoples*, is only used in references to other writers' works. The term refers to Indigenous Peoples within the colonial nation-state of Canada, whose inherent rights to their original territories were re-inscribed in the Constitution Act (1982) (as well as First Nations, Inuit and Métis Peoples). The use of *Indigenous Peoples* is considered by many leading scholars to be preferable to *Aboriginal Peoples*, because it reinforces the supra-state reality of Indigenous Peoples

and, in doing so, also demands that original languages and cultures are specifically utilized. For Alfred and Corntassel (2005), "*Indigenous peoples* are just that: Indigenous to the lands they inhabit, in contrast to and in contention with the colonial societies and states that have spread out from Europe and other centres of empire" (p. 597). Indigenous Peoples may be the general place-based and oppositional (to empire) construct used, while culture based names are preferable in particular contexts. Naming Indigenous Peoples according to self-determination ethics and principles, is essential to understanding how Indigenous or Traditional Knowledge work from within ecological and cultural contexts (Ladner, 2003).

My use of *Euro-Western* throughout this writing is intended as a descriptor of non-Indigenous, Western and Eurocentric thought. Marie Battiste and James Sakej Youngblood Henderson (2009) differentiate Indigenous Knowledge from Eurocentric Knowledge systems (p. 5). The supremacy of Eurocentric thought within Western knowledge traditions is taken up by John Mohawk (2010) as a critique of modernity from within a Haudenosaunee worldview. My own use of Euro-Western is an amalgamation of these concepts and a critique, of Eurocentric paradigms and Western modernity as an overall project designed to erase the importance of Indigenous thought. *Eurocentric* refers to the system of knowledge production that centers Euro-Western ways of knowing as superior to Indigenous ways of knowing. Eurocentric knowledge production demands the subjugation and yet also the appropriation (and erasure of that appropriation) of Indigenous Knowledge (Battiste, 2008). In response to Eurocentric and Euro-Western domination, my research has centered ceremonial and cultural ways of learning.

The pressures facing diverse ecological areas are interconnected, inherently, to the threats and pressures of colonization for Indigenous Peoples. An Indigenous learning process centers the knowledge and emancipation of Indigenous Peoples (Rigney, 1999, p. 109). This work is about understanding environmental sustainability from an Indigenous feminist and Two-Spirit perspective in part because of my own situated and embodied approach to knowledge, but also in part because much of the literature on colonization and decolonization tells us that paying heed to what Smith (2006, p. 1) calls the "heteropatrichal" aspects of colonization, or the reinforcement of the heterosexual and patriarchal family unit, will reveal dynamics of colonialism and ways of resistance. The work of return/renewal, of Indigenous women's governance, requires understanding culture/worldview and returning to Indigenous teachings. As Koptie (2010) argues, John Mohawk's work on Haudenosaunee governance positions women as leaders, ensuring long-term wellbeing for communities and for the land, including agricultural areas (p. 99).

This is not research about Indigenous culture as a source of wisdom for mainstream environmental movement. Instead, this is work about Indigenous cultural renewal and how we can enhance Indigenous sustainability work in our shared spaces. This writing is a call to resist the re-centering of settler control and 'settlement of theory' (Tuck and Yang, 2012, p. 3). Colonization as a system of both ecological and social destruction, is described here by Alfred and Corntassel (2005):

> Contemporary Settlers follow the mandate provided for them by their imperial forefathers' colonial legacy, not by attempting to eradicate the physical signs of Indigenous peoples as human *bodies*, but by trying to eradicate their existence as

> *peoples* through the erasure of the histories and geographies that provide the foundation for Indigenous cultural identities and sense of self. (p. 598)

Enquiry into environmentally sustainable community development is therefore incomplete without Indigenous centering.

In Utopian Legacies (2000), the late Haudenosaunee scholar John Mohawk presents a compelling argument that Euro-Western societies in looking ahead to the potential for a perfect society, create incredible destruction in their wake as "regional economies are sacrificed; forests plundered; animal habitats destroyed; species of animals and plants rendered extinct; and low intensity warfare is waged against indigenous and peasant populations" (p. 13). The colonial project, resulting in genocide and ecocide are consequences of this quest for a perfect future society; progress and development are the trajectories of these movements (p. 4).

The problem of understanding sustainability can better be understood through an Indigenous lens. Some of the issues raised by theorists like Rist (1997) who argue that sustainable development is really just a rhetorical sanitizing of the problematic development paradigm, can be added enhanced. Especially considering the ways that Indigenous economies have in fact been under-developed to make room for over-developed and unsustainable colonial communities. Globally, the colonial project is defined as one of development (Smith, 1999) and economic underdevelopment (Rodney, 2010) that, in an Indigenous North American context, has been articulated as "intentional colonial poverty" (Koptie, 2010, p. 96). There are added layers also, when Indigenous Knowledge becomes appropriated, repackaged and ultimately derided by colonial Euro-Western thought. The linearity and futurity of the Euro-Western colonial

project is mimicked in appropriations of Seven Generations thinking (through capitalist marketing for example), which do not acknowledge the ongoing and historical sustainability practices of Indigenous Peoples and also the need for Indigenous return—to land and territory expropriated by colonial settler society and state/corporate entities.

After initially asking about the meaning of sustainability from an Indigenous perspective, this project became something I came to understand as a situated mixed-Indigenous feminist and Two-Spirited approach to environmental sustainability and community planning. Gardening knowledge (as both a garden project and as a knowledge project) has been an embodied, experiential learning curve. The need to better understand environmental sustainability and sustainable family and community planning—after decades of seeing our family and community wellbeing harmed by colonization—is an intersectional and urgent project. A Basic Call to Consciousness (2005) outlines the challenges of environmental degradation as centrally an issue of Euro-Western domination as well. In the authors' words:

> The air is foul, the waters poisoned, the trees dying, the animals are disappearing. We think even the systems of weather are changing. Our ancient teaching warned us that if man interfered with the natural laws, these things would come to be. (p. 90)

Indigenous thinkers argue that we therefore need a deeper approach toward better understanding the ways that an Indigenous worldview would actually inform the multiple dimensions of heteropatriarchy (Andrea Smith, 2011), heterosexism and sexism in the ongoing project of colonization, while also informing ongoing resistance and revitalization. Research as cultural renewal therefore seeks to revitalize Indigenous

Knowledge while clearing up Eurocentric interference, inclusive of heteropatriarchal violence imposed through colonial knowledge production.

Sustainability Contextualized

As a result of growing concern over the environmental changes that have resulted from industrial, colonial development, Our Common Future also known as The Brundtland Report (1987) was authored as an international call for sustainable development, cooperation between developing countries and everybody else toward sustainable development, and to define environmental needs and environmental protection (GH, B., & Development, p. x-xiii). As Sneddon, Howarth and Norgaard (2005) argue, The Brundtland Report,

> marked, anchored, and guided the rise of a remarkable political debate, indeed a whole new political discourse across contesting interests, from grounded practitioners to philosophical academics, from indigenous peoples to multinational corporations. Sustainability may yet be possible if sufficient numbers of scholars, practitioners and political actors embrace a plurality of approaches to and perspectives on sustainability, accept multiple interpretations and practices associated with an evolving concept of development, and support a further opening up of local-to-global public spaces to debate and enact a politics of sustainability. (p. 254)

Sustainability, in Jacobs' (2002) work means understanding Seven Generations thinking as rooted in Indigenous cosmologies.

> The concept of planning for the Seventh Generation, or the faces yet to come, was an integral part of indigenous decision-making long before the Brundtland

> Report. Through the intimate knowledge of our traditional territories upon which we survived, indigenous peoples have been living this concept since time immemorial. (p. 4)

In their work on sustainability and its many meanings, writers and activists Jensen and McBay (2009) include a chapter entitled 'Sustainability™' which could easily be applied to Seven Generations product placements (including diapers, soap, etc). In this chapter, Jensen and McBay outline the efforts of an individual who has been lauded in his efforts to build a 'green roof' on a Ford Truck plant, and to create a kind of eco-haven on site at Nike plants. Jensen and McBay's critiques are based on the possibility that such 'greening' of economic activities which are inherently unsustainable in and of themselves, amounts to mitigation rather than deeply changing any element of a consumption based economy (p. 68). Corntassel (2014) presents critical work on sustainability in terms of both linking the colonial system intrinsically with the destruction of environment, and in terms of turning to an Indigenous worldview in order to better understand a truer meaning of the term. For Corntassel, there is a direct relationship between environmental wellness and Indigenous freedom, as "in states where a settler presence dominates indigenous homelands, resource extraction via deforestation, desertification, pollution and freshwater depletion are prevalent" (p. 65). There is the problem—of Eurocentric ideas whose confusedness serves to rescue the colonial project. Rist (1997) critiques the idea of sustainable development as an "oxymoron" and as an attempt to rescue rampant development. In Rist's words:

> It is true that concern for protecting the environment has grown recently, but this can hardly be attributed to the popularity enjoyed by the idea of 'sustainable

> development'. If an increasing number of people – everywhere and at all levels of society – feel that some- thing has to be done to lessen the impact of human activity on the biosphere, this is rather due to the mounting environmental crises that we are witnessing, from recurrent hurricanes to the melting icecap, or from progressive desertification of large inhabited areas to urban pollution. And yet, 'development' – be it sustainable or not – remains high on the agenda, and no one seems about to forsake it. (p. 487)

I am arguing, in part, that sustainability is an overly ambiguous term because identity in relation to time and place, is being glossed over at a time when Indigenous treaty rights and responsibilities and decolonization efforts are so vital. Further, there remains a need to link ongoing environmental degradation to the projects of decolonization as they unfold in Indigenous knowledge/landscapes. This project is about a temporal and spatial renewal of relationships rooted in Creation and the Original Instructions, and based in pre-colonial and ongoing adherence to democratic Indigenous governance. For the Haudenosaunee, Original Instructions go back to the original creation of life with spiritual helpers telling human beings in an ongoing way how to live and what responsibilities we have in relation to each other and Creation (NAHO, 2006).

Purpose

My central purpose has been to learn about sustainability in a decolonizing, embodied, experiential way. I grew gardens, attended ceremonies, tanned hides, and made drums, all while reviewing literature that could capture what I was beginning to question and learn. From a situated perspective, there are particular intersections that I bring to the work, which might challenge Eco-Queer and Eco-Feminist theorists to

better center Indigenous land based priorities and the project of decolonization in their work, while also broadening our work in Indigenous communities, where respect for diverse voices is pressured by limited resources. The project of renewal and sustainable Indigenous planning, means reshaping our ideas about family and community according to older, pre-colonial models of inclusion and diversity. A Queer/Two-Spirit, Indigenous feminist approach would interrogate gendered dimensions of colonization/decolonization, while rooting analysis within Indigenous world views, and prioritizing land based renewal as solutions to the traumas and losses caused by Residential Schooling (Regan, 2011), the dispossession of the Sixties Scoop, still ongoing with the vast overrepresentation of Indigenous children in state custody (Sinclair, 2007), and ongoing incursions against treaty relationships by intensive, extractive, unsustainable economic development (Koptie, 2010). Amnesty International (2013) outline the problem of colonial expropriation and development in a Canadian context with attention paid to interlocking issues of Indigenous land rights, environmental questions, and violence against Indigenous women:

> oil and gas, mining and other extractive industries…will affect lands and waters that Indigenous Peoples depend on as the basis of their economies, cultural traditions, languages and spiritual life. . .For Indigenous women, unchecked resource development has been especially destructive, contributing to a rise in violence, sex trafficking and exploitation as large numbers of outside workers are brought into Indigenous Peoples' territories. (para. 8)

Colonial power relations are compounded by worldview differences that run deep and require a total shift in approach.

The significance of Indigenous Knowledge within environmental theory needs to be reframed by a perspective based on the renewal of Indigenous pathways (Henderson, Battiste, 2000). Along similar lines, there is the purpose of re-centering what is inherent to begin with--what is already implicit within environmental knowledge in the Americas--the connections between Indigenity and sacred knowledge pathways, reinforced in treaties which show, for newcomers, what sustainability looks like.

Decolonization necessitates a reconceptualization of the discursive and embodied borders within and between us, by grounding us and the fundamental principles of mutual aid, collective liberation, and humility—not in isolation, but instead within our real and informed and sustained relationships with, and commitments to, each other and the earth (Walia, 2013, p. 19). The Rosebud Sioux Tribe's assertion that the U.S. House of Representatives approval of the Keystone XL pipeline constitutes an "act of war" brings to the forefront the inherent connections between environmental activism and Indigenous governance. The renewal of Indigenous independence is also being re/storied as a renewal of pre-colonial egalitarian systems of gendered social, economic and political revitalization.

'Learning to learn' is really the purpose and outcome of this work. Situating/knowing myself within my questioning, understanding ideas in a reflexive way, has meant articulating a very specific but hopefully broadly useful approach to sustainable community planning. The work ahead is a Two-Spirit, Indigenous, feminist approach to sustainability because my own situated knowing also reflects larger challenges of intersectionality and a need to better understand the strengths and

contributions of those who are most impacted by the colonizing, environmentally devastating system of the past 400 years.

When I was in a ceremony, or out on a fast for clarity, the task was not just about my own knowledge growing, but about giving up or sacrificing something (food, water) for future generations, and giving thanks, putting down tobacco for those gifts. Treating the whole of a community as integral to our wellbeing is also part of this gifting work. Queering and Indigenizing sustainable community development is about sharing and acknowledging gifted knowledge—including clan, name, language. Without the contributions of all members of an Indigenous community, the power of these gifts is diminished—or at least this might be one way to add to an argument about the inherent importance of a deeper understanding of decolonization. This is another way of saying, as Smith (1999) argues, that we should stop being complicit in oppression that is intersectional and intertwined.

Rationale

There remains a need to express Indigenous perspectives on environmental and community planning in broad, intersectional, decolonizing and culturally rooted ways. Much of Euro-Western theory on social and environmental justice excludes Indigenous perspectives (Simpson, 2001) while specific inquiry into crucial ecological stressors, including water toxification and oil/gas overdevelopment, require Indigenous women's voices at the center of those discussions (Anderson, 2013) in order to inform a deeper set of links between environmental education, sustainability, and human justice. Still too there is the need to honour Indigenous teachings in their authentic forms (Martin-

Hill, 2003) inclusive of Two-Spirit or LGBT-Indigenous analysis on the traditional systems of gendering and non-hierarchy.

An Indigenous feminist and Two-Spirit approach to the subject of subjugation would produce new knowledge while reinforcing cultural creation. Gaard (1997) argues that colonization is a deeply gendered project:

> Throughout the documents of explorers and colonists, native peoples are constructed as animal-like: they are perceived as overly sexual, and their sexual behaviors are described as sinful and animalistic. The indigenous women are eroticized, while the men are feminized -- and all these associations are used to authorize colonization. (p. 148)

At the same time, Indigenous theorists produce this kind analysis in ways that are strengths-based and decolonizing, not speaking about Indigenous communities purely in a past context, but instead in ways that reinforce the cultural context and renewal of culture. To craft an intersectional, embodied approach, so that marginalized voices can create safer space for renewal and revitalization. Storying is "multidimensional" and "engaging ways to reconcile infringements (past and present) on the lands, cultures, languages and epistemologies of Indigenous peoples" (Fitznor, 2012, p. 271).

Outline

This dissertation is divided into five chapters. The first chapter outlines the beginning of my research journey. In the beginning, I ask about the importance *of* the beginning; I reflect, in this first chapter, on the significance of Creation and on the positioning of decolonizing methodologies within environmental thought. I apply this discussion to a theory of environmental sustainability which questions human

connections to all of life--in North America in particular, though I think that these origin questions are part of a whole way of being throughout Turtle Island. The second chapter dives into the significance of Haudenosaunee Creation (the Original Instructions) and the Thanksgiving Address (the Words that Come Before All Else) in informing a truly sustainable past, present and forever within Haudenosaunee territory on Turtle Island. The third chapter follows up on the important elements of Haudenosaunee worldview, with a broad take on the significance of the Great Law, and the concept of Peace, as well as the code of Handsome Lake and the concept of prophecy. The fourth chapter delves into the problem of spatiality and temporality, tying together the first three chapters which argue that Indigenous nations have already solved the major dilemmas of Euro-Western society with respect to longevity and belonging in the Americas. This chapter also features an analysis of the limits of Euro-Western environmental thought as both an internal challenge to Eurocentric paradigms and a reinforcement of settler colonialism. The fifth and final chapter contains examples of an application of Indigenous knowledge renewal in community planning and health initiatives, as well as future research directions. My approach is self-reflexive, claiming no authority but only a positionality that might feed new pedagogical and theoretical direction in environmental studies, while continuing the project of centering environmental concerns across social science inquiry.

Chapter 1

Decolonizing Methodologies:

Gardening Knowledge Toward Sustainability

This project moved from an individualized attempt to understand sustainability from within an Indigenous worldview, toward an integration of those lessons in community planning. My writing is intuitive and cyclical as I attempt to explain links between time, space, gendering and sustainability. Indigenous planning is being reclaimed as a way of challenging colonialism, re-asserting culturally rooted processes in place and time (Matunga, 2013) while also diversifying the project to be inclusive of all members of Indigenous communities. Adding to discussion about differences in worldviews while finding some common ground means centering Indigenous literatures and practices. In Henderson and Battiste's (2000) words:

> Ecological teachings have defined for Indigenous Peoples the meaning of life, our responsibilities, our duties. They have also developed our consciousness, our languages, and what others have categorized as our 'cultures.' these teachings have allowed us to flourish. (p. 9)

A critical Two-Spirit, Indigenous feminist reading of environmental theory would prioritize the relationships of original nations to the temporal and spatial dimensions of life in Turtle Island, while exploring the complexities of relationship and identity, thereby undoing the heterosexist constructs of Indigenous social structures, challenging the violence of heteropatriarchy, and informing critical theory on deeper levels (A. Smith, 2011).

There was a sense of urgency when I started this project—that the meaning of sustainability had been extracted and taken away, that Seven Generations thought had also somehow taken, and even if such things were impossible—false notions of superiority and ownership—it felt as though something material would also be taken. That if environmental movements included Indigenous voices only nominally, or not at all, then the economies of sustainable community planning would also remain marginalized. At issue are the gate-keeping tendencies of Eurocentric scholarship, limiting findings according to Euro-Western paradigms and frameworks, while maintaining "the ongoing marginalization and/or assimilation of Aboriginal students and scholars" (Battiste, 2000, p. xi). Linda Smith's (1999) influential work on decolonizing research methodologies speaks to the many ways that colonizing knowledge practices

> extract and claim ownership of our ways of knowing, our imagery, the things we create and produce, and then simultaneously reject the people who created and developed those ideas and seek to deny them further opportunities to be creators of their own culture. (p. 1)

Henderson (2000) continues to describe the issue of knowledge production in the West as a project of shoring up Eurocentric domination:

> The core of Eurocentric thought is its claim to be universal. . .the quest for knowledge was an outgrowth of the 'wonder' that Aristotle found at the beginning of all European thought and of the dialogue in which Socrates sought to engage each person capable of listening and willing to listen. Life was to be tested by questioning its universal good. This quest for truth and value informed the

> concept of universal purpose and explains why Europeans left their lands and went to such efforts to discover the world. The second inspiration was the messianic prophecy contained in monotheistic religions. (p. 22)

Eurocentric dominance is part of a propaganda system previously reinforced through Residential and 'Indian' Day school programs (Regan, 2011), and carrying forth into contemporary efforts to malform and control Indigenous identity in Canada (Alfred & Corntassel, 2005).

It is therefore essential to take on these interferences while also renewing the application of Indigenous ways of knowing across disciplines. Colonialism's designs create terrible struggles for vulnerable people in its quest to recreate hierarchies and divisions (Smith, 2011). According to the Native Women's Association of Canada's 'Sisters in Spirit' (2010) report,

> As of March 31, 2010, 582 cases of missing or murdered Aboriginal women and girls have been entered into NWAC's Sisters In Spirit database. NWAC's research has found that the intergenerational impact and resulting vulnerabilities of colonization and state policies—such as residential schools, the 60s Scoop, and the child welfare system—are underlying factors in the outcomes of violence experienced by Aboriginal women and girls. (p. i)

Renewal in an Indigenous context is about recognizing and empowering the strength and voice of our communities, thinking our way out of colonization, and renewing the original instructions gifted by Creation.

Jim Dumont (2005), Elder and Chef of the Eastern Doorway of the Three Fires Midewiwin Lodge, articulates what an Indigenous worldview and Indigenous

intelligence encompasses thought that is “inclusive of the legacy of our ancestors and of what our ancestors are waiting for us to do. Our thoughts also include the future generations. It is a living past, a living future, and we are the living connection in between” (p. 2).

The project of reasserting Indigenous methodologies also takes on the reductionist limitations of Eurocentric knowledge systems. Deep time and place specific relationships are central to understanding an Indigenous worldview. Interconnectivity and deep comprehension learned and expressed through spiritual, intellectual and physical acts, root Indigenous nations, as Deloria Jr.’s (2006) work attests to:

> Among the powers granted to medicine people were relationships with the land, the plants, and the elements. Over the generations, different tribes learned to coordinate their activities with the forces and entities of the natural world, and they produced an amazing knowledge of how the larger world functioned. (p. 125)

Environmental enquiry is a rich area for Indigenous learners as governance, economy and social structures are rooted in an “ecological context” which Ladner (2003) describes as

> the way Creation, or a people's knowledge of and experiences with Creation, are manifested in language, worldview, and social phenomena. Therefore, it is the idea that humans (and their "creations") exist as an undifferentiated part of the circle of life with languages, worldviews and social phenomena existing as a undifferentiated part of the circle. (p. 129)

A spiritually rooted, dynamic and fluid understanding of temporal and spatial reality is reflected in Silko’s (2006) storytelling work:

Ts'its'tsi'nako, Thought-Woman,
is sitting in her room
and whatever she thinks about
appears.
She thought of her sisters,
Nau'ts'ity'I and I'tcts'ity'i,
and together they created the Universe
this world
and the four worlds below.
Thought-Woman, the spider,
named things and
as she named them
they appeared… (p. 1).

Silko's centering of women's creative powers are especially revealing here. The revitalization (Henderson, 2000) of sacred knowledge traditions of Indigenous Peoples, is vital at a time when environmental systems are changing drastically. For Indigenous Peoples, "resurgence movements then, must be movements to create more life, propel life, nurture life, motion, presence and emergence" (Simpson, 2011, p. 143). At the heart of environmental revitalization and environmentally sustainable pathways, are Indigenous Knowledge traditions that continue to speak to thanksgiving, to renewal, and to learn from Creation. Visioning for sustainability misses the mark when the worldviews of peoples previous excluded from written records (Mann, 2000) are then sifted through for only those points considered most relevant by a dominant and

destructive society. As well, increasing knowledge about the incredible violence visited upon Indigenous women in particular (NWAC, 2010), comes at a time when Indigenous women's knowledge traditions, and the alternative gender equity models of Indigenous nations, have the capacity to address some of the deepest problems in environmental thought.

Literature on the independence of Indigenous Peoples is also intersectional, bringing situated knowledge to the forefront, asking, as the late Mohawk scholar Patricia Monture-Angus' (1995) writings speak to the ways that situated knowing are understood in an Indigenous worldview. The interconnected needs of those silenced by the violence of colonization is emphasized in terms of gender and sexuality (Smith, 2011), and age, but not only as sub-populations in need of greater voice/space/time for renewal but as knowledge and change agents (Dion-Stout & Kipling 2003). Speaking from my own positionality, I want to garden a Two-Spirit, Indigenous feminist take on sustainability that brings together community and environmental well-being. It seems that for Indigenous Peoples, the project of renewal and revitalization is already embedded, already inherent, in an ecological context of truth telling and peace making. The restoration of treaty and Indigenous land rights and responsibilities in a time of immense change will frame the work.

For example, one of the central aspects of community that settler-colonials sought to unravel, the respect held for children and their gifts (Simpson, 2008) and for women and their leadership (Mann, 2000) are also layered with an ability to understand changeability and fluidity and the balance of whole community needs which seem to have been of equal threat to the settler-state project of subjugation. Roscoe (2000)

writes that, “The social universe of native North America was nowhere more at odds with that of Europe and Anglo-America than in its diverse gender roles” (p. 4). Taken all together, the work therefore demands an understanding of human and environmental interconnection, of the diversity of Indigenous communities, and of the immense contributions of all Indigenous people to the project of sustainable family and community revitalization.

Doing the difficult but necessary work of challenging Eurocentricism in environmental thought, while seeking alliance-building possibilities is both a rationale and an aim of this work. Torgerson (1999) writes that “While challenging much of Eurocentric modernity, greens also remain part of the cultural context that they challenge” (p. 187). In citing this broad challenge, Torgerson points to concrete examples of alliances between environmentalists and Indigenous Peoples whereby the land rights/responsibilities of Indigenous nations were not fully understood or respected as central to the actual environmental issues themselves. Even environmental scholars who seem sympathetic to Indigenous concerns, might borrow for purposes that do not actually alleviate those issues. Some credence is given in Callicott’s (1989) work to the possibility that Indigenous ethics might be a good model for non-Indigenous peoples (p. 208). Still, when Euro-Western paradigms are the standard bearer and Indigenous Knowledge is an afterthought.

A critical gendered approach to the project of decolonization involves looking at the ways that the colonial system and therefore the work of decolonization, addressed gender based responsibilities to land and place. A Two-Spirit , Indigenous feminist reading of environmental theory would prioritize the relationships of original nations to

the temporal and spatial dimensions of life in Turtle Island, while exploring the complexities of relationship and identity. I utilize Indigenous feminist understandings in the ways that Indigenous scholars like Kim Anderson (2010) utilize the term, as a reflexive and critical approach to unpacking intersectionality in Indigenous theorizing (81). Rifkin (2010) provides a model for a Queer reading of environmental literatures and in doing so, evokes the boundary crossing, "counterhegemonic" writings of Thoreau, while confronting the ways that "settler occupation" remain reinforced in the work (p. 26). The reinforcement of settler colonialism is about identity in relation to time and place. Space and time are redefined according to settler fantasy whereby, Rifkin (2010) argues, writers like Walden can reach across time in order to access the savage, romantic "forgotten" Indian (p. 133) he must grasp in order to connect with place. In a similar vein, place is redefined as a wilderness "that makes possible a revitalization of life in the village that undoes convention and breaks one free from what is surveyed and fastened" (p. 111).

Environmental Justice theorists and activists remind us that communities of color and Indigenous communities disproportionately experience health burdens correlating with environmental toxification (Brulle and Pellow, 2005). If there is, as Brulle and Pellow (2005) continue, "a need to integrate environmental inequality and its health impacts into the existing research on health disparities" (p.32), then there is also valuable information to be contributed in a protected and ethical way by these communities not only about the impacts suffered but about solutions offered.

Situating Self

Evoking a situated, embodied, experiential approach to sustainability education in community planning projects are ways of necessarily power structures and education hierarchies (Ritchie, 2013). Situating myself in the work means understanding the ways that my family and identity had been impacted by colonization. It also meant understanding the strengths and responsibilities inherent to the communities I am a part of. My mother's and aunt's guidance showed me the strengths of Indigenous women to renew culture no matter what pressures might exist—even in ways that I didn't realize, in gardens, songs, ways of dealing with conflict, and ways of helping me through the violent and violating aspects of living in a colonized society. My maternal grandfather was from Kahnawake and some of my grandfather's siblings stayed there to raise children while others left, as he had. My maternal grandmother was Indigenous from both sides of the Canadian/U.S. border, but aside from knowing that she grew up north of Timmins, Ontario, we did not know her background because she didn't discuss it. My mother and her siblings discussed Mohawk culture in terms of independence and uniqueness from Canada, and also in terms of the work they did picking berries or fishing or hunting or listening to Mohawk being spoken by their father.

My father's lineage is Scottish, Irish and English. I travelled to England where he was born, as part of my learning, because I wanted to understand the significance of storytelling as relationality between humans and landscapes and spirits of those lands. I'd heard stories about my father's family's identity framed mainly by World War 2, and I wanted to go further back. Visiting pagan and Christian ruins made me wonder how places inscribe stories in us as much as we inscribe our stories in places.

When I started my doctoral work, my mother started to grow tobacco in her garden. We talked a lot about her garden, and when she passed away, I started to reflect back on the lessons that I'd learned in my mother's garden. My mother survived a day school that, from her stories, was perpetuating of colonialism and abuse. Parenting and family life was something she dedicated herself to completely but the residual effects of her experiences sometimes led to confusion and tension. Her stories were about culture sometimes, like how beaver pelts hung around her home or how her mother took care of the trap-line as much as her father had, or how her father gathered traditional medicines. Still, there were other stories, about residential schooling's impacts on her parents, and the dank, deep illnesses that resulted. For my generation, impacts of having family that experienced such an interruption in wellbeing include overlapping and numerous effects of "intergenerational trauma" that has led to family breakdown, individual disease and disorders. At the same time, resilience rooted in culture and in belonging and reciprocity within Creation, explains ways that Indigenous families garden knowledge through trauma and disorder. My mother's garden countered memories of trauma with a remembering of our culture and of our interconnections. The garden was a space of healing for her and of communication for my siblings and I with our mother and with our first mother, earth. It has been important to understand my mother's life and her journey, as I put out feast plates and continue to communicate with her.

One aspect of my identity that always—at least when I was young—felt incommensurable with an Indigenous identity, was my own Two-Spirit/Queer identity. I now realize that community planning in Indigenous circles is incredibly inclusive—and

that our traditions are inclusive—despite the pressures of homophobia imparted by assimilationist missionaries and residential schooling. The necessity of asking deeper questions about inclusivity is also about sustaining all members of family and community. Indigenous studies theorists call for further alliances between LGBTQ theorists and activists in order to deepen the decolonization process (Driskill, Finley, Gilley, Morgensen, 2011, p. 16). Corntassel (2014) argues that the whole community must be well in order for sustainability to be actualized and Indigenous self-determination is integral to this whole approach to wellbeing (p. 66-67).

Methods.

I engaged with Indigenous learning as an embodied, experiential and interconnected process, building relationships with environment and human relatives alike. Shawn Wilson (2008) speaks to the relational aspects of Indigenous research and in reflecting upon Wilson's work *Research Is Ceremony*, I engaged with land based learning, ceremony (including naming and fasting) as my primary ways of coming to better understand Indigenous knowing as an overall process of critical engagement with the concept of sustainability. I chose methods and a methodology toward writing this dissertation as part of a larger project of renewing responsibilities in a treaty-based, Indigenous context. I wanted to create a process of learning that allowed me to fill in the gaps of academia, since, as Simpson (2002) describes academic programs are not designed to commit to a comprehensive program,

> to address the issues of colonization and colonialism in their communities, effect healing and decolonization at the individual, community and national levels, facilitate resistance strategies in response to current injustice, and promote the

> building of healthy, sustainable Aboriginal communities and Nations based on traditional cultural values and processes. (p. 14)

My own positionality, my own stories, compel me to look at anti-colonial strategies from intersectional perspectives while crediting Indigenous Knowledge systems with the capacity to help us to make vital connections. In my research, I look to Indigenous thinkers like Laara Fitznor (2012) who articulates storying as embodied, reflexive, rooted in and reflective of traditional Indigenous Knowledge within academic works.

In this search for a framework, a methodology, and a way of understanding sustainability as a storied concept, I've used Indigenous research methods (ceremony, cultural activities, consultation with Elders about personal growth) to enhance and deepen an autoethnographic analysis through field note recording and reflection on my experiences in learning about Indigenous environmental sustainability. Artifacts thus become sacred items gathered or gifted as part of learning about sustenance and sustainability—for example the drums I made or the hides I helped to tan. Dissemination becomes about sharing sustainability teaching through actualization of sustainability—thanksgiving for sustenance—as a concept rooted in Indigenous thought. Gardening knowledge and original seeds allows for the embodiment and sharing of sustainability learning.

Practice/action on the land, followed by reflection again, is integral to an Indigenous approach to experiential learning (O'Connor, 2010). Sitting on Mother Earth in fasting, going to ceremony, tanning hides and making drums, all helped me to understand the ways that spirits of place aid in communicating responsibility and relationality, while literature spoke to the significance of ceremony and of experiential

knowledge in time/place. Following my Masters research, in which I did gather interviews, I felt out of my depth in analyzing the information. I needed to regroup and to learn more about the frameworks and worldview I wanted to work with, and the best way to do so was to engage in ceremonial and cultural work. I had to regroup because it was not enough to know something, I had to attend to the whole process of learning, unlearning, relearning and then moving through those cycles all over again.

Matunga (2013) challenges land use and community planners to "unlearn" the colonial practices and theories that weigh the field down (p. 2). As Indigenous Peoples address processes of sustainable community planning, I would add that centering Indigenous community priorities, actions, capacity building and training as hands on, theoretical and practical experts, is the centering that is needed for both environmental and human health. In order to better understand an Indigenous-centered, intersectional and embodied approach to sustainability, I began two large gardening projects, engaged in ceremonial work toward thanksgiving and renewal and then researched the significant elements of these processes with a literature review of both Indigenous and non-Indigenous sustainability theorists, particularly where Indigenous North American lands and teachings were being dealt with.

Experiential learning is understood as central to knowledge growth in many areas of Indigenous environmental education (Simpson, 2014). For Indigenous learners, these are growth areas—experiential learning more generally and w/holistically—because culture based learning is inherently experiential (Wilson, 2008). At the same time that, as Battiste (2002) discusses "a literature review is an oxymoron because Indigenous knowledge is typically embedded in the cumulative experiences and teachings of

Indigenous peoples rather than in a library" (p. 2), literature can still be used from Indigenous scholars (and also where Indigenous Peoples and lands were discussed by mainstream theorists illustrating important gaps in understanding) in order to add to the narrative (p. 3).

Centering Indigenous approaches to knowledge renewal and re/creation means encountering the paradoxes of re/search. Smith (1999) interrogates colonial knowledge production while arguing that Indigenous communities also require their own research approaches. Wilson (2008) describes an approach to research that is embodied and intellectually cognisant of our relationality as human beings in community.

Choosing a learning method or set of methods that could be recognized by the Euro-Western academy was difficult aside from a basic set of literature reviews. In terms of those reviews, I was reluctant to define them in positivist ways, as I have taken part in other meta-analyses, scoping and systematic reviews that claimed positivist principles. And if, for example, I ventured to ask an Elder whether an interview might be appropriate, to answer some of my questions about sustainability, I was instructed instead to go to ceremonies, to take pat in something on the land, or to put my tobacco down (as a way of giving thanks), or to attend more teachings but not record them. Brant-Castellano (2000) draws parameters around the types of knowledge that Indigenous methods contribute—in the form of teachings, observation and ceremonial or revelatory new understanding, gifted from spirit. Learning about relationships with environment meant engaging in ceremony, learning on the land, and then visiting the literature in order to weave story/information together into a useful approach. In terms of information that could then be written down, I sought literature from Indigenous

thinkers that would allow me to explore certain themes without writing anything that I'd learned in ceremony for example.

A mix of methods allowed me to garden the knowledge that I needed in order to complete at least a beginning framework on what an Indigenous approach to sustainability might look like.

On the Land Learning

Initially, my plans included the idea of focusing on a Three Sisters Garden as a metaphor for Indigenous renewal through honouring the original knowledge and gifted brilliance of a nation. The Three Sisters are part of a complex Haudenosaunee garden and ecological system, involving seeds gifted from the time of Creation, companion planting, and the planting of nearby tobacco and the Jerusalem artichoke or sunchoke, a tubor that grows year after year. The more I planted, the more I began to see how plants could work together—knowledge held by the Haudenosaunee long before European arrival—how the wellbeing of other parts of the land played into the garden's wellbeing, how interconnected the gardens were with the animal and fish life, and on and on. I planted heirloom seeds including corn, bean and squash seeds and tobacco plants. At first, I planted these seeds in a personal garden. Then, I took on my mother's garden, exploring the links between knowledge, gardening, health and wellness in embodied practice. Finally, I planted two acres with friends, in a more communal process, sharing food, discussing the links between the gardens and the forest, the animals and plants that provided sacred food and wellness. As I planted, and my gardens grew in size, and community joined in the processes, I started to see the ways that we might build/rebuild family and community in ways that challenge heteropatriarchal divisions and power.

I helped to traditionally tan a moose and a deer hide with the non-profit organization I began with friends as a way of addressing larger concerns about environmental education from decolonizing perspectives. The Seven Directions Environmental Education Center consists of myself as a co-director along with two other directors, and a total of four families with Indigenous roots. Our hide tanning workshop (see Appendix, Figure 2 and Figure 3) was funded by the Ontario Arts Council (OAC). As a result of this workshop, I was able to see the ways that we could engage in environmental education in ways that would decolonize our families and communities as part of our sustainability endeavours. After tanning the moose and deer hides, and having ceremony and teachings about that process, I helped to make drums with those materials. Previous to this workshop, I had helped my mother to make drums and to take care of the drums she left when she passed away. I also made a drum from moose hide that I tanned. The drums I carried helped me to think about thanksgiving—giving song in gratitude for different parts of life—about communications, about the skills of the women around me, about the gifts of animal relations in allowing us these sacred items.

Fasting and Sweat Lodge Ceremony.

Because so much of my learning has been on Anishinaabe territory, I wanted to honour the teachings local to where I was. I went to a fasting camp with an Elder who is rooted in Anishinaabe culture. Part of the ceremony involved my naming. A further step will be to feast the name I received. In the ceremony and during my fast, I was able to better understand thanksgiving and giveaway as an integral part of personal and community wellbeing and relationality with the animal and spirit helpers that Sheridan and

Longboat (2006) describe as gifting us with the knowledge we are given about the world. I understood their work on an intellectual level but until I experienced what they were discussing, about spirit helpers in particular and about understanding coming from those giveaways and ceremonies, I couldn't move further into the subject.

Limitations.

The limits of not writing down everything (for example during or after the Fast about the ceremony itself, which would be highly unethical), but of engaging with experiential learning were possibilities as well as interesting paradoxes. Anderson (2009) writes of this dilemma, that "we may not be ready to footnote coyote or owl in our research papers, but we can certainly call on these relations in thoughtful meditation, ceremony, or prayer to guide us in our work" (Anderson in Monture & McGuire, 2009, p. 516). Deloria Jr. (2006) wrote of this contrast that in the Indigenous world,

> experience is not limited by mental considerations and assumptions regarding the universe. For the non-Indian the teachings of a lifetime come thundering down. Such things do not occur in time and space. Reality is basically physical. No one sees ghosts. Reality, in a certain sense, is what you allow your mind to accept, not what you experience. (p. x).

I gardened knowledge, learning in my home garden, and in the gardens that a non-profit I began as part of my work—The Seven Directions Education Centre—started planting in 2013 after three years of preparing and gathering seeds and information about sustainable practices. I've also been a part of research projects linking health/wellness, sustainable community development, and Indigenous worldview renewal as a solution

to sustainability and health needs—all in a process of 'Knowledge Gardening'. The garden has become a place of embodied, interconnected, aesthetic and economic learning about sustainability from within an Indigenous worldview.

The garden has also become a place where understanding the diversity of life becomes important. Diversity in terms of insects, birds, earth, air, water, all those minerals that nourish plant life, all that plant life that nourishes one another in an original permaculture, is mirrored in human relationships that value diversity as integral to community.

The garden also evokes gifting or the gift economy, which is described as a whole social order, "established and maintained mainly through giving gifts and recognizing the gifts of others, including the land" (Kuokkanen, 2007, p. 7). The logic of gifting and the ethic of responsibility to family and community and to internationality and reciprocity within Creation. And because sustainability in this instance can be understood as an acknowledgement of the gifts of Creation, inclusivity is also about ensuring that everybody is experiencing the good life without hindrance.

Anishinaabe elder Jim Dumont (2005) writes about an Indigenous worldview, encompassing respect for Creation and holism. Reflecting on Elder Dumont's words, there is a deeper way of seeing Earth, Sky, cosmos and the whole of life and Creation unfolding. Dumont writes,

> With this ability to see beyond the boundaries of the physical and the capacity for all-around, circular vision comes respect: respect for creation, respect for knowledge and wisdom, respect for the dignity, equality and freedom of others (including other-than-human persons), respect for the

quality of life and the spirit in all things, respect for the "mysterious" (p.5). Learning to learn from within an Indigenous worldview, means renewing thanksgiving and acknowledgement of the gifts of knowledge and form. It also means speaking from my own standpoint, as an Indigenous and Euro-Canadian, Two-Spirit woman, at a time when other Indigenous women are signalling a crisis with respect to violence against our bodies and against the land.

As an urban, mixed-Indigenous woman, and in a context in which Canadian state structures have worked hard to undo Indigenous land holdings along the fault lines of gender and other elements of colonial oppression (NWAC, 2010), it has been important as well to garden spaces for new kinds of storytelling, information sharing, and so on. I seek to understand storying (Fitznor, 2012) as ongoing renewal and revitalization of Indigenous Knowledge. Anderson (2009) describes those

> gatherings of Indigenous women including knowledge keepers, medicine people (including young people) who have always met in gatherings of their own, to tell stories, share important information and to conduct ceremony in order to address the needs of the People and of the Land. (p. 514-515)

Cronan (1992) writes that as humans being, we are storytelling beings who "choose plot to order our environmental histories, we give them a unity that neither nature nor the past possesses so clearly. In doing so, we move well beyond nature into the intensely human realm of value" (p. 1349). This idea seems to imply that humans invent stories. Does this leave room for the necessary intervention by Indigenous scholars who would instead speak of stories as having sacred origins? And what are the responsibilities and deeper implications of the sacred stories especially the story of creation as protected

retold, and nourished by Indigenous knowledge keepers? The late Seneca scholar John Mohawk's words (2010) resonate: "our consciousness is not separate from, but a product of, the universe" (p. 24). As I have come to understand these things, gratitude and sharing are rooted in the original Creation stories of Indigenous nations, and are ethics and ways of living in a beautiful way modeled to human beings by the rest of Creation. On the other side of the river are colonizing models of environmental sustainability, articulated by a society unable to understand thankfulness and giveaway and far too busy trying to keep up with its own needfulness. In between are the deeper waters we travel together.

I sought Elders for advice, and followed their instructions in order to define my next steps in both material and spiritual terms. In the Spring of 2011, I was put out to Fast by a well-respected Nishinaabe Elder from the Sudbury area. This Elder gave me a name which helped me further to understand who I am, what my responsibilities are, and how I might go about fulfilling those responsibilities for the good of the People. During my Fast, I came to understand the concept of entering into ceremony for the healing and wellbeing of Creation. This was and is about learning more about identity as rooted in responsibility to place and to time.

I needed to revisit the critique of research in Indigenous communities and to 'learn to learn' before articulating even my question or central problem. Wilson (2008) writes about an approach to research that carefully considers our responsibilities to community at every stage. When I think of the concept of an Indigenous community, I think in terms of a nation of clans or families in a traditional territory where they have been gifted with particular teachings. The way Anishinaabe elders Carol Hopkins and

Jim Dumont (2010) explain human beings in creation is the way community makes sense in deep and resonant ways. They write:

> As humankind is a conscious and interdependent member of the Earth family, so are the creatures (as other-than-human beings) aware of and responsible to be related in a good and caring way within the family of creation. The Earth herself is a living, breathing, conscious being, complete with heart/feeling, soul/spirit, and physical/organic life, as it is with all the relatives of creation. Humans are also part of a community of creation in the sense that the cosmos, "a great 'extended family.' (12)

The importance of centering Indigenous community is also about understanding that diversity within community means shifting meaning.

The ongoing and insidious nature of colonialism in Canada demands re-assessment. Henderson (2000) calls this changeable system an 'anti-trickster':

> The 'anti-trickster represents a cognitive force of artificial European thought, a differentiated consciousness, ever changing in its creativity to justify the oppression and domination of contemporary Indigenous peoples and their spiritual guardians. (p. 58)

The anti-trickster explains the shifting nature of colonialism, and the internalization of Eurocentric ideologies. Honouring the work that Indigenous women continue to do in environmentally sustainable community development and planning, has been central to my learning (Hall, 2008). An Indigenous Two-Spirit ed, feminist approach to the subject necessitates both an honouring of women's contributions and a queering of the boundaries that reinforce Eurocentric gender/race/class hierarchies (Mann, 2000).

Where eco-feminist theorists in the West have not well understood Indigenous cultural concepts, for example, calling Mother Earth an 'essentialist construct' (Gaard, 2011) a renewal of the actual, rooted understandings of Indigenous worldviews is needed. Without this understanding, Indigenous women's voices are only further marginalized. With this approach, however, Indigenous women's contributions to environmental theory can be seen in clearer ways. Themes of love and commitment to community as a whole of Creation are iterated for example in Nason (2013) who writes:

> The world has witnessed the boundless love that Indigenous women have for their families, their lands, their nations, and themselves as Indigenous people. These profound forms of love motivate Indigenous women everywhere to resist and protest, to teach and inspire, and to hold accountable both Indigenous and non-Indigenous allies to their responsibilities to protect the values and traditions that serve as the foundation for the survival of the land and Indigenous peoples. (para.1)

One of the contributions that Indigenous theorists have developed, is the idea of the Gift Economy, which roots economic and governance concerns in a decolonizing approach. Kuokkanen (2007) relates the gift economy to the Haudenosaunee Thanksgiving Address or Words That Come Before All Else and relates the giving of thanks to a pedagogy of environmental and cultural recovery and renewal:

> is still used to open gatherings in order to bring the minds of the people together as one and align them with the natural world and its gifts. Becoming aware of and engaging in the slow process of learning to learn from the original philosophies would not only result in the recovery of the contaminated turtles (and Turtle

> Island as a whole) but also signify connecting with the world at an intellectual level, so that it is not an abstraction but instead surrounds us in the here and now. (p. 163)

In many ways, Kuokkanen's words echo an understanding of what I've tried to accomplish with this writing, with the gardening I've done, and with the other work of 'learning to learn' (p. 163) from Elders, Knowledge Keepers and other Indigenous family and community members. Learning to learn also meant finding ways to share the learning process, through discussion after ceremony about what I'd heard or felt, giving away drums made and foods/medicines grown and harvested, and building relationships so that research directions could eventually be geared toward community needs and rooted in traditional approaches to knowledge gathering.

Creation is precedence or instruction for a spiritually grounded way of life that can generally be called egalitarian--all beings considered equal (Mann, 2000). Yet Indigenous thought also provides a healthy understanding of autonomy, choice, and personal freedom (Simpson, 2011). I believe this also to be a reason for ensuring that a gendered perspective be integrated into the work of understanding sustainability. Not only because women's voices have been muted by colonial literatures and political systems (Mann, 2000; Allen, 2003), but because the spiritual, material-economic, political and intellectual contributions of Indigenous women and Two-Spirit people are so great, and because the layers of how gender works in traditional Indigenous worldviews have far too much to teach us.

Framework.

I choose the Two-Row Wampum, or Kuswentha, as my framework for understanding the ongoing autonomy and integrity of Indigenous worldviews. The Kuswentha is described as a treaty between Mohawk and Dutch nations that is both living (ongoing) and formative for other Indigenous and non-Indigenous relationships. In Jon Parmenter's (2013) words,

> *Kaswentha* may best be understood as a Haudenosaunee term embodying the ongoing negotiation of their relationship to European colonizers and their descendants; the underlying concept of *kaswentha* emphasizes the distinct identity of the two peoples and a mutual engagement to coexist in peace without interference in the affairs of the other. The Two Row Belt, as it is commonly known, depicts the *kaswentha* relationship in visual form via a long beaded belt of white wampum with two parallel lines of purple wampum along its length – the lines symbolizing a separate-but-equal relationship between two entities based on mutual benefit and mutual respect for each party's inherent freedom of movement…(p. 83-84).

Honouring my mother's ancestry meant honouring the independence of the Haudenosaunee since time immemorial. Honouring Indigenous Knowledge means understanding that space and time in the Americas is always understood from within an Indigenous worldview and not according to colonial narratives. As Sheridan and Longboat (2006) describe,

> The Golden Age of the Haudenosaunee, as settlers might both understand and diminish this idea, is a timeless condition of life as well as an unfolding reality guaranteed by natural laws observed by the Haudenosaunee and renewed when those laws and beliefs are in need of revival. (p. 368)

The need to overcome colonial legacies in ongoing form and to understand treaty relations is, as Ralston Saul (2014) argues, "the great issue of our time, the great unresolved Canadian question upon which history will judge us" (p. 2). Turning to the treaties that Indigenous nations and confederacies drew up in order to live well together and in order to live well with newcomers means centering those governance systems in all enquiry. This work necessarily evokes and supports a justice-oriented and environmentally embedded approach. In light of the need for an appropriate framework that would honour differential but lasting responsibilities for Indigenous and non-Indigenous Peoples on Turtle Island, I searched for information on The Kuswentha (Two-Row Wampum) which ensures the ongoing responsibility of Onkwehonwe (original/Indigenous people/s) to their territories (Keefer, 2014). I'll cover the treaty in more depth in the chapter on Haudenosaunee worldview in relationship with sustainability, but for now it is important to note that one of the pieces of knowledge gardening that I produced was a scroll that helped me through my comprehensive papers (see Figure 1). I used the scroll, which measured approximately four feet wide and ten feet long, in order to map information according to an Indigenous worldview or a Euro-Western worldview in order to further dig through and understand the contexts of Indigenous knowledge production and the impacts of colonization in the Americas.

Interrogating colonialism and eurocentricism, while promoting and actively engaging in, the renewal of Indigenous identity, culture and worldview, is central to my methodology. The problem with sustainability isn't just that it is an uncertain concept, but that it has been corralled by Eurocentric meaning, repackaging colonialism in ways that would save 'the commons' for settler society's long-term uses. Solving the crises of environmental destruction means untangling thoroughly from the colonial project, abandoning its insidious hold, and imagining a world seeded by Indigenous nations.

Chapter 2

Haudenosaunee Worldview and Sustainability

When I left home for University, my mother and her siblings asked me to bring home teachings that were in direct relation to identity. They were thirsty for the knowledge that had been given to them in their father's brief life (having left Kahnawake, he moved to Cree territory near Timmins and passed away when my mother was still a teenager). Honoring my mother's lineage and the ancestors has remained central to my academic studies. This area of questioning remains important, but identity has become a part of something greater. Tracing lineage is about responsibility. Responsibility is learned, as I understand it, through tracing knowledge back to Creation. This chapter is therefore dedicated to the origins of Haudenosaunee thought, re-told in different written sources, in order to bring together a sense of the importance and dynamic truths of Creation.

As 'knowledge seekers', Wilson (2008) reminds us, we know that relationality is reality. Honoring the works of Indigenous thinkers, and in particular Haudenosaunee knowledge keepers whose words form the bulk of the following two chapters, has meant gathering a literature review honoring the whole worldview of the Haudenosaunee. Undoing the false contexts of colonialism has also meant challenging the 'experts' on Haudenosaunee thought who replace the authentic with the Eurocentric

(Mann, 2000). As much as possible, I have gathered a literature review that engages with core teachings in critical and responsible ways.

In the Kanienkehaka community of Kahnawake, where the Environmental Protection Office's Straw-bale housing project continues to inspire those with an eye toward the material in balance with the needs of the Natural World, sustainability is understood through The Thanksgiving Address or Words That Come Before All Else (Eva Johnson in Hall, 2005). This ethic and renewal of thanksgiving, is tied also to Creation, to an origin 'story', an origin truth.

Tom Porter (Sakokweniónkwas) names the core teachings of Haudenosaunee thought, from Creation/Thanksgiving, to the Clan System, Four Sacred Rituals, Great Law and Handsome Lake teachings. What follows honors the sourcing of knowledge in Creation ongoing. As Vine Deloria Jr. (2006) writes, Indigenous sacred knowledge is famously revealed through dreamscapes as well as waking empirical observation. The gifted knowledge of Indigenous Peoples occurs on multiple levels of experience and perception, it would seem, as Deloria Jr. continues:

> Some dreams had considerably more complexity when it came to establishing a relationship between humans and the higher powers as mediated through other creatures. These dreams often provided the dreamer with powers that could not have been imagined or developed as a spiritual exercise. It is important to note that the animal and not the human takes the initiative. . .The animals observe the human, and if he or she treats other animals kindly, they want a friendship with the human also. (p. 3)

Later, I will talk more generally about ceremony's significance. I have categorized the areas of significance for this chapter in order to emphasize the truth of Creation and the central importance of Thanksgiving. While the environmental significance of ceremonials are vitally important, I do not believe that it is my place to speak specifically about them as somebody outside (currently) of the Longhouse way of life.

Creation truths are also known in Indigenous terms as Original Instructions, laying paths for the generations to live in Earth's dynamic processes with so much love. Creation in Haudenosaunee collective memory is not authentically reproducible here, but the significance of ongoing teachings, learning and reality unfolding, is something I want to voice in terms of the vital importance of feminine power and responsibility. Mother Earth. Grandmother Moon. Ocean tides we cannot escape no matter how technical our solutions to outdated avoidance strategies.

In the winter of 2005, Kanienkehaka scholar Taiaiake Alfred was kind enough to meet me in a Kahnawake restaurant in order to discuss my Masters work on Haudenosaunee economic independence as an alternative to the dominant capitalist economy. In addition to leading me to a more holistic and decolonizing analysis of my topic at the time, Taiaiake also gave me a nudge toward my current set of questions. We had begun to talk about the allies of Indigenous Peoples in their struggles for land and freedom from state coercion, and Taiaiake named the environmental movement as perhaps the most important of these allies. We paused at that point, each wondering if this was indeed the case, and then we decided aloud that this relationship might be more complicated than it should be. Taiaiake's generous assessment of the situation was contrasted by my cynicism and it is in the spirit of his more open approach that I

am attempting to critically engage with patterns in Euro-Western environmental thought, as these patterns affect the ability of the movement to support and understand Indigenous ways of knowing.

The original ceremonies, stories, and languages of sacred territories feed those teachings back to the Indigenous Peoples of those territories in ongoing ways. It is because knowledge is sourced originally in Creation that this time/space relationship remains vital for me to understand. Deloria Jr. (2006), tells us that observation is part of a larger source of knowing and that "by observing the behavior and growth of other organic forms of life," Indigenous Peoples in their homelands,

> could see that a benign personal energy flowed through everything and under girded the physical world. They understood that their task was to fit into the physical world in the most constructive manner and to establish relationships with the higher power, or powers, that created and sustained the universe. (p. xxv)

Creation gives contemporary Haudenosaunee the capacity to think in deeply interconnected ways. Through cycles of experience, of death, birth, moving, bleeding, weeping, regenerating, human beings learn how connected they are with elements of Mother Earth (Cook, 2003).

Human beings learn that they are connected as part of what Deloria Jr. (1994) describes to be "the fabric of life that constitutes the natural world, the land and all its various forms of life" (p. 1). As I have come to understand in my own way, the basis upon which all life, animal, human, winged, water and wind alike, is understood and loved, intimately and continually, is a basis of Creation or the Original

Instructions. Haudenosaunee sacred knowledge holders begin with Creation because this is the necessary beginning, the true beginning of life in the Americas which stretches back to Sky World, continually renewing and reconnecting Cosmos and Earth, Sky and Land.

In turn, the realities of Creation's unfolding tapestry, need to be termed in ways that make sense to traditional thought, without fear of reprisal from those whose thinking cannot make room for nuance, paradox, multiple voices and multiple truths. Simpson (2006) weaves original Creation stories/Truths or Original Instructions of Indigenous nations here, to Indigenous women's power and autonomy in traditional societies, saying that

> Creation stories in several different cultures speak to the ability of Indigenous women to give new life to beings, to transform, and to vitalize. Women had important responsibilities in traditional governance based on their knowledge of birthing and mothering. Women were honored and respected by our nations for our contributions, for our power and for our responsibilities. (p. 27)

In retaliation against the Original Instructions, there are those newcomers who tried to reinforce colonialism's workings by denying the validity of Creation. This is described by Joe Sheridan and Roronhiakewen 'He Clears the Sky' Dan Longboat (2006) as "a fear against wanting to understand and experience the experience of the past and so is also a failure to know and to trust in the Beginning" (p. 371). While Euro-Western paradigms center on the supposed fall of man, the actual fall of one immensely powerful woman into this realm, is an important point on the circle of time in Haudenosaunee territory.

Sky World's existence is as much a part of the cosmology and therefore the 'environment' as physical manifestations of life here. Sky Woman's arrival in this world was a real event, "an astronomical event. It was also a metaphysical event, an event that occurred in the *manito aki*" (Allen, 2003, p. 79). Indigenous traditions cannot be dismissed as merely symbolic or animistic and primitive belief systems, but are, as Paula Gunn Allen (2003) reminded us, based on real events, not metaphor or fantasy. Tied closely to this process of storytelling, are Indigenous art-forms of a variety of mediums (Cajete, 1999). So while what follows is interpretation, using largely secondary sources, I am putting forth the essential importance of Creation as my thesis for this chapter.

Ancient belonging begets ancient knowledge. Without this ancient line, the current generation is lost in the 'latest' ideological trend, it sometimes seems. Cycles of birth, death and rebirth in ancient landscapes, and the ability to trace lineage to original Creation allows for an immense trajectory of learning. Mann (2000) tells us that history is measured in much longer ways, as for the Haudenosaunee,

> Earth's history began in the First Epoch. Haudenosaunee time does not correlate with European views of time. Whereas the grand split in eras recognized by Europeans centers around the arrival of the Christian messiah, with the lesser splits occurring at the rising and falling of empires, or the invasions and conquests of non-European lands, Haudenosaunee time centers around the great spiritual events of each Epoch. (p. 31)

Mann's gatherings of Haudenosaunee knowledge present Four Epochs in Haudenosaunee cosmology. First goes back to Sky World and Sky Woman's life and includes human creation and forgetfulness—resulting in ceremonial cycles being gifted

thus. The Second Epoch refers then to the birth of the Great Law of Peace, after turmoil and war. The Third Epoch contains Sganyadai:yoh (Handsome Lake's) visions and teachings. The Fourth Epoch is held in prophetic teachings about Turtle Island (the Americas) changing and shifting, such that something we might call decolonization or the end of colonial dominance by Eurocentric powers, would begin (p. 57). These are complex teachings and I am not in any position to represent them, but for my purposes, it is sufficient to say that these Epochs tell Time in ways that go beyond the 1492 discovery timeline, and reposition our ancestors as the rightful originators of human conduct on Turtle Island. Going back to this First Epoch, Haudenosaunee minds connect to Sky World (p. 32) and the teachings or sacred knowledge originating there. What does it mean, for example, to know that Creation or the Original Instructions (Hill, 2008) begins in such a spiritually powerful place? From these origins, human beings are given a way of life, like the Longhouse in Haudenosaunee territory, which connects to Sky and Earth, to the material and the spiritual (Mohawk, 2005, p. xi).

What follows are pieces of oratory transcribed, which put together a general and situated treatment of how Creation unfolds from ancient memory. Oratory presents this work accurately. And in my own case, being outside of the Longhouse, I can only situate this work in my own reflection of the importance of sacred knowledge. Creation and Thanksgiving are the deep communication which form a way of living in sustainable ways. Of the utmost importance are the connections between thinking and doing, between thought and reality. Before Earth was Sky World, whose realities mirror reality here and continue to do so. And in Sky World:

> A magnificent tree called Ona'dja (or 'Tooth' in reference to the yellow dog-tooth violet tree) held together the top and bottom of Sky world. Ono'dja would produce anything the Sky Peoples thought about, dropping it to the ground, where they would pick it up. Sky society functioned much as did later Iroquoian society. Into this world was born a female infant who was eventually to seed all life on earth. Her childhood and girlhood were remarkable, presaging the great things she would accomplish in the future as Sky Woman. (Mann, 2000, p. 32)

The traditions of Haudenosaunee orators are gathered together in Barbara Alice Mann's work. One element of Creation which is interesting for my work is the importance also of Sky Woman's brother. His love for his sister, his loyalty and caring for niece and great-nephews, is described throughout Chief John Arthur Gibson's oratory, edited by John Mohawk, on the story of The Earth Grasper and throughout therefore different time periods in the Creation story's early happenings (Mohawk, 2005). These brother/sister and also uncle/nephew and niece, bonds are shown to be so central to the whole workings of the Haudenosaunee family--built of loyalty and caring, so completely separate from the hierarchical Adam/Eve hetero-patriarchy of Euro-Westernized Christianity. Family loyalties such as these ensure that married partners do not isolate themselves from extended family. Strong anti-abuse and anti-violence protocols are embedded in these family values, having been also commented on widely, and traceable back to Creation's origins in Sky World. Family bonds were not about nuclear heteropatriarchal organizational structures (Noel, 2006).

Every part of the Creation 'story' is truth about events and beings who embody the sacredness of the world. Sky Woman begins her transition to Earth:

> Sky Woman--variously called Awenhai (Fertile Earth), Ataensic (Mature Flowers), O:nenhste (Corn) and, eventually, Iaegentei (Ancient One, or Grandmother)--fell or was pushed to earth through a hold in Sky world that had been created. . .As she disappeared through the hold in Sky World, Sky Woman grabbed at the roots of the felled Tree, wishing for sustenance. Because it was the roots she gripped, the Tree gave her seeds. In her right hand, she grasped the Three Sisters, and in her left, Tobacco. (Mann, 2000, p. 2)

Sky Woman's growth as a sacred spiritual teacher, and foundational medicine person, is detailed more thoroughly in oratory pertaining to Sky World and Earth in later incarnations (Mohawk, 2005).

In her telling of these events, Haudenosaunee historian Susan Hill writes about a kind of spirit portal, a pathway from one world to the next, and of the animals who first encountered Sky Woman--themselves previously having lived in Sky World--who decided among themselves in Council to help her with her work of creating in ongoing ways. Susan Hill (2008) writes thus that:

> The story begins in the Sky World at a time when this world was covered in water and inhabited only by water beings. A portal opened between the Sky World and the Water World, and a pregnant woman from the sky fell to the water below. Waterfowl became aware of her descent and flew up to catch her while animals in the water chose a giant sea turtle's back as the location upon which to set her. The muskrat brought dirt to the surface from the bottom of the sea which, with the transformative powers of the turtle and the Skywoman, grew into Turtle Island. (p. 24-25)

In Susan Hill's reflection on this lengthy part of the history of Haudenosaunee Creation, elements like the portal between Sky World and this world, stand out in presenting a dimension of reality not readily evident by those who see 'ecology' or 'environment' as purely physical phenomenon. Creation is a more appropriate term for the time being, than 'environment' because its dynamic intent gathers in more of these elements, and reinforces the depth of Haudenosaunee knowledge of sustainability in relationship to all relations in a diverse world.

The story continues as Sky Woman walks, pregnant, around the back of the Turtle as the sacred water birds

> placed the woman on the earth on Turtle's back. . .The material upon which the woman rested--earth--continued to grow. As the earth reached a suitable size, Mature Blossoms gave birth to a baby girl, and she cared for the child, and the child grew rapidly. It was not long before the child was a young woman. (Gibson qtd. in Cornelius, 1999, p. 13)

When sustainability is spoken of then, there are deeply spiritual connections to remember, and also interconnected elements to remember. *A Basic Call to Consciousness* (2005) explains that "the spiritual universe, then, is manifest to man as the Creation, the Creation that supports life" (p. 86). And all of these related beings are exactly that--related. Turtle, Earth, birds, sacred teachers, these all make up reality from the start of Creation. Haudenosaunee sacred knowledge is the foundational knowledge in Haudenosaunee territory--without this knowledge, it is impossible to talk about sustainability. In terms of the animal relations in this history, it becomes known through these sacred orations, that the animals are co-creators, and elders, of human

beings. Muskrat, in some versions, is the swimmer who first retrieved earth for Sky Woman and for Grandfather Turtle. Muskrat died in his efforts to retrieve the sacred matter that Sky Woman sang into an abundant and fruitful landscape. As Mohawk (2005) expresses this part of the story,

> Hanyadengona (Great Turtle) stepped forward. 'I will try,' he said. Then they placed the earth upon his back. After a short time he said, 'It is all right. I will be able to hold it. And if it happens that the earth shall continue to grow in size, I will grow in size with it. (p. 12-13)

Sky Woman's daughter is known in some traditions as the Lynx. Her sacred contribution continues to nourish human beings, from her very body as well as her mind and spirit from the beginning. Lynx, when she was

> old enough to walk, mother and daughter roamed the length and breadth of Turtle Island exploring its delights, planting their seeds, creating new plants (the Lynx invented potatoes, among other things), and naming all the animals based on their means of locomotion. After Sky Woman grew too old for their walks, the Lynx set out alone each morning, traveling one of the four Shining Roads, returning each night to tell her mother what she had beheld. The pair was inseparable. Their only serious disagreement arose when the Lynx, lonely for a mate and children of her own, fell for a tricky Elder Earth Spirit, North Wind, who, infatuated with the beautiful Sky Child, wooed and impregnated her behind Sky Woman's back. Thus did the Lynx become pregnant with twins who were neither--or rather *both*--Sky and Earth. (Mann, 2000, p. 33)

The truth of Haudenosaunee origins establishes creative powers as part of Sky woman and her daughter's living and dynamic legacy and ongoing existences. Earth's beings are shown also to be ancient and made up of different worlds' contributions.

Lynx's twin sons, it is said, argued with one another even in the womb (Mann, 2000). Sky Woman's work of Creation was followed by the twin's works, as Cook (2000) writes,

> The Sky Woman danced in the direction the sun goes around the Earth, planting the seeds. And as she danced, her daughter was born. Her daughter, too, continued to keep the world growing by that dance – that women's dance that we still do today in our longhouses to recognize the responsibility of women to the Earth and to life itself. As her daughter grew into a young woman, she became pregnant by a male being – some say it was the West Wind – and she bore twins. It was in the work of those twins that the world as we know it was created. (para. 26)

The twin's journeys are connected. Mann (2000) continues on this thread, writing of the tragedy which began the striving for balance, between the easy and difficult things. She writes that "all of Sky Woman's forebodings were justified: The Lynx died before her time in an agonizing delivery. Both her baby boys survived, but Sky Woman's heart was on the ground" (p. 33). The daughter of Sky Woman was buried and her body became Mother Earth. In Mother Earth is now an embedded (Longboat, personal conversation, 2008) and dynamic life-cycle, growing sacred foods, bringing forth human spirits--the Faces Not Yet Seen--those soon-to-be generations who watch everything that lightly-treading feet do in their time.

Even amidst this sadness and Sky Woman's grieving, the Twin Songs were raised to become so vital to Creation. The Right Handed twin, named Sapling in some traditions, and the Left Handed twin, named Flint, walk together, creating many beautiful and paradoxical life forms (Mann, 2000). Sapling is said to have created Strawberry, a sacred medicine, in some traditions, while Flint creates the Rose's thorns to balance out the beautiful work of Sapling. Flint is said to struggle with destructiveness, even though his creations are so often necessary, and now part of the larger fabric. Jealousy, envy, anger, seem sometimes to pull him astray in the retellings of this oration (Cornelius, 1999, p. 82) and provide human beings with teachings about balancing our their own tendencies and high emotions. The calm that prevails with the Right Handed twin's beautiful creations, is matched by generosity and giveaway, as he provides even when his brother tries to harm his work (Mohawk, 2005, p. 29). The Twins are honored in this way when it is said that they are not 'bad' versus 'good' or Christianized devil/saint constructs. Mann writes also of how Flint made the Rivers difficult to travel upon so that human beings would appreciate the work and the rivers themselves, and that he made bones for the fish so that "as the creatures swam about in the waters, their flicking bodies made many flashing sites of swift light, enticing spirit portals" (Mann, 2000, p. 60). Indigenous scholar Paula Gunn Allen (2003) writes of this cosmic balance between Flint the Sapling, that it was the interaction between the two that put the world into balance, establishing a dynamic equilibrium that causes human consciousness to stretch and grow in all its dimensions" (Allen qtd. in Mann, 2000 p. xxiii). The sacred Twins in Mohawk's (2003) words,

> continued to grow very rapidly such that in a few days they were able to converse with Mature Blossoms. Then Mature Blossoms said, 'Do you know where you have come from? And do you know where you will go when you leave this place?' One said, 'I know. We have come from the Sky World, and I will remember that I will continue to grasp with both hands the knowledge of the place from which I came. And when the time will come, I will go back to that place.' Mature Blossoms was pleased. 'You know the entire matter,' she said, 'I will name you De'hae'hiyawa'kho(n)--he holds the sky--Sky holder. (p. 16)

With Creation emerges the reasons behind so many Haudenosaunee values and sacred understandings of the world. We hear about Mother Earth and about Grandmother Moon, about Elder Brother sun, about the forces in our own minds that confuse us, the voices then that also guide us. Creation reminds and renews Haudenosaunee continually, that female energies and teachers/teachings continue to guide human work and responsibilities on Earth.

The other pillars of Haudenosaunee worldview continue to reinforce these lessons. The Creation story or Original Instructions, full of rich and intricate lessons, changes with each speaker, each nation's traditions, the place and time it is spoken (Longboat, 2008). This does not make this oratory untrue, fiction, or proof of any other invented Eurocentric piece of mythology.

Ohén:ton Karihwatèhkwen, The Words That Come Before All Else

The Thanksgiving Address also known as The Words That Come Before All Else, is significant from many angles. Thanksgiving is shown its origins in Creation, in how human beings are intended to conduct themselves, how minds come together for every

gathering, and how Haudenosaunee renew connections again and again to all Beings of Creation. A sustainable future first begins with Thanksgiving which acknowledges an already ancient set of relationships between people and local ecologies (Mohawk as cited in Nelson, 2008). In the same volume of teachings, Nelson (2008) reminds the reader that Indigenous learning and teaching processes are like medicine bundles, made up of stories which "represent different aspects of life teachings: women's knowledge, healer's knowledge, children's knowledge, hunter's knowledge" (p. 5)

Gratitude and giving is being discussed by some, as I will follow up with in a later chapter, as a concept known as the Gift Economy--though these writers who deal with the term do not limit their analysis to economics alone. Genevieve Vaughan (2007) writes of this Gifting concept that,

> Although Europeans tended to interpret the Indigenous economies in the light of their own exchange-based mentality, gift economies were still widespread when the colonizers arrived. Women's leadership was important in these so-called 'pre'-market economies. For example the Iroquois Confederation, where women farmers controlled the production and distribution of agriculture, practiced gift giving in local groups and participated in long distance gifting circles among groups. (p. 3)

Chief John Arthur Gibson's Creation oration describes the time when human beings were told how to give thanks and how to live in gratitude by Sky holder (Mohawk, 2005, p. 78-79). Creation, Thanksgiving and Original Instructions are intertwined concepts (Hill, 2008).

The People

In Chief Corbett Sundown's (1999) oration, the Thanksgiving address begins with The People, reminding of responsibility and unity:

> And now we are gathered in a group. And this is what the Sky Dwellers (The Four Beings) did: they told us that we should always have love, we who move about on the earth. And this will always be first when people come to gather, the people who move about on the earth. . . .And this is what Our Creator did: he decided, 'the people moving about on the earth will simply. . .come to express their gratitude.' and that is the obligation of those who are gathered: that we continue to be grateful. (p 203)

The Words That Come Before all Else thus unites minds in caring and in "thankfulness, peace of mind, an understanding of duty and responsibility, love for one another in kinship, and overall happiness" (p. 71). Themes of environmental connection are gendered in a balance between youth/age and male/female, which describe the wholeness of human experience (Mann, 2003, p. 179). Kanienkehaka midwife Katsi Cook (1989) writes of women's sacredness within Indigenous cosmologies, again presenting a view very different from gender binaries and hierarchical relationships. Cook writes:

> In a traditional world, Native American women understood their bodies in terms of the Earth and the Moon. In the universal community of women, the Earth was perceived as our Mother from whom all Life comes. A Dene origin story tells of the menstrual flow of the Earth by which vegetation and reproduction are possible. This flow, which we know as dew, was created from the maple dew of the horizontal skyblue and the female dew of darkness. Reproduction originated

> from this menstruation of the Earth. The Moon, our Grandmother, is the leader of all female life. She controls all things female or procreative. She causes movement of the great waters of reproduction, of birth itself, and of the oceans. (Cook 1989, qtd. in Bruchac, p. 82)

Throughout the literature, Haudenosaunee worldview--including this deep respect for feminine cycles--as originating in the Natural World and not in human invention (Sheridan & Longboat, 2006). The Earth/Sky gendered balance is described thus:

> Haudenosaunee belief can be understood as a spiritual connection to a bountiful reality known also as an ecosystem or a traditional territory. This traditional territory is so vast that Haudenosaunee tradition speaks about the sky as the roof, the Mother Earth as the floor, and the setting sun and the rising sun as the doorways of the Longhouse. (p. 368)

The People are known by their Creator, by their traditional ecologies, and by the spirits of these places, and in voicing their gratitude for these deep and caring relationships, renew their identities, and their past/present/future belonging. Gratitude, balance, egalitarianism--concepts which appear to be foundational to Haudenosaunee knowledge in sustainability terms.

Central to this understanding of sustainability are Haudenosaunee teachings on the love that Creation has for human beings. In other words, the foundational thinking is that human beings are loved, and not expendable. Sheridan and Longboat (2006) write that

> One can understand how Creation and mind are expressions of each other and mutually interested in the deepest of friendships. So long as humans 'mind

> Creation,' the duty is done and the spiritual helpers will look after a human vulnerability dependent on all the other creatures, birds, trees, plants, and insects. (p. 374)

An ethic of love is not the same as promoting the idea that human beings should be wiped out in order to save the earth, but instead people are seen as an integral and younger part of Creation.

Mother Earth

The People then give thanks to Mother Earth. Mother Earth, going back to Creation, was imbued with life giving and life taking energy, when, upon First Woman's death, she was buried beneath the soil (Mann, 2000). This cannot be an 'essentialist construct' because for one thing, the 'construct' believes human invention to be central to human information--in an Indigenous worldview, the whole of Creation gives rise to story, to idea, to thought, to experience. Among many things to consider, the late John Mohawk pointed to the importance of understanding that for the health and longevity of a human society, Mother Earth provides human beings with the first lessons on life and death, on loving life through loss and grief, and on being thankful no matter what (Mohawk, 2005, p. xi). When Sky Woman's daughter gave birth, in narratives written down, it seems as though Earth experienced its first wave of true and utter grief--Sky Woman's grieving. Still, the stories I've read say that Sky Woman continued to Create, to raise her grandchildren, and to love the Earth where her daughter's body was buried and regenerated so much of Life (Mann, 2000). Thanksgiving is shown to be so poignant here, because the loss of her powerful and well loved child led to the incredible

sustaining energies which we see every season and with every Earth change. Even through grief that giving of thanks, of gratitude, of peace, renews life.

One of the purposes of sorting through all of this literature has been to relearn, and to renew, that original or Indigenous understanding of Earth's 'sentience'. There is the foundational thinking of the Haudenosaunee and of other Indigenous nations on this territory, which establishes without any kind of debate, the fact of Mother Earth's living, ongoing, Creative work, and of Grandfather Turtle's living, ongoing, Creative work. Abstract arguments over where this can possibly be true, or whether believing such things makes one a reductionist/essentialist, erase the existence of pre-existing realities to the ideas of Euro-Western minds.

Place names show this pre-existing reality as well. Benedict (1992) discusses naming with regards to Akwesasne, and specific area names such as burial grounds, and the place where Sturgeon fish have their home (p. 19). Naming is multi-layered, because it is about the spirits of the place (Mann, 2000), each being in that place, so even 'space' is understood in its dimensionality rather than just as an abstract plane of empty land, or commodified parceled up plots. Or even 'ecosystems' which is a term that seems to indicate a return to mechanized language and therefore lifeless earth.

The Plants and Grasses

Thanksgiving is given to the Plants for spiritual and medicinal help that they provide for human beings, as well as other creatures. Benedict tells a story about how one man dreamt of Tsioneskwenrie or 'wild ginger' embodied in small beings who visited him to tell him how it was that he might cure a particularly bad ailment. The Plant People also gave him instruction on the proper storage of the medicine (Benedict

as cited in Bruchac, 1989). Respect and caring, tobacco offerings and gratitude is given thus to Plant beings. Plant medicines were also created by the tricky minded Flint, according to Mann's telling, after he spun European colonization and it took so many turns and gained such destructive momentum, that he regretted his hasty actions (Mann, 2000, p. 40).

The Berries

Chief Sundown's Thanksgiving Address in Carol Cornelius' work speaks to the depths of how the berries of understood to be so vital to wellbeing. Strawberries, found in both Sky world and Earth, originating in Sky world, reminds people of connections to the Creator:

> it is also true that we use them, that we drink the berry water (the ceremonial mixture of strawberries and water). . .When it is in the course of things it becomes warm again on the earth, we are thankful for everything. And give it your thought, that with one mind. . .we may give thanks for all the plants, our medicines. And our mind will continue to be so. (Sundown qtd. in Cornelius, 1999, p. 205)

An integral part of Haudenosaunee, sustainability, Berries have their gendered gifts as well. Women take particular Berry medicines (like Raspberry leaves) to keep our bodies healthy through menstruation, pregnancy. Cook (1989) writes thus that

Control over production and the reproduction of human beings and all our relations is integral to sovereignty. It is this area of sovereignty which falls primarily in the domain of the female universe and encompasses the balances and forces which promote the harmony and well-being of the People. (p. 85)

Berries are part of this female ecology. One ongoing question which the Elders and Sacred Knowledge holders can help us with as we struggle with this question of living 'sustainably', is how genetic modification and pesticide use alters the spiritual and sacred work of the Berry Plants. The answers seem obvious when foundational teachings are the first starting point of enquiry. More work here would be useful, as Indigenous youth help with that next generation of renewal.

Trees

Next the Trees are given mindfullness and gratitude and are acknowledged for their good work. As the Creator

> decided, 'Again, there will be a certain tree which I shall cause to remind the people moving about to think of me. The maples will stand on the earth, and the sweet liquid will drip from them. Each time when the earth becomes warm, then the sap will flow and they will be grateful for their happiness. (Sundown qtd. in Cornelius, 1999, p. 206)

The embodiment of Peace in the Great Law is Great White Pine (Longboat, 1992, p. 103). Wallace writes that the White Pine "'pierces the sky' and 'reaches the sun' and lifts 'the thoughts of the Iroquois to the meanings of Peace" (Wallace, 1994, p. 27-28). Teachings have also been given by Haudenosaunee healers like Jan Longboat, about the importance of the Maple tree to human health.

Waters

When I first wrote this section, I was involved for the first time in the Sudbury Water Walk. There have been Water Walks since, with Sunrise ceremony or

thanksgiving, feasting, meeting and discussion, and of course prayer for the wellbeing of struggling waterways.

> When the new day dawns again, the first thing we use is water. And let there be gratitude. It is coming to pass as our Creator intended. And give it your thought, that we do it properly: we now give thanks for the springs, the brooks, the flowing rivers, and the ponds and lakes. And our minds will continue to do so. (Chief Sundown qtd. in Cornelius, 1999, p. 205)

Water is also, of course, an essential part of Kuswentha or Two-Row Wampum teachings. The river upon which parallel canoes travel is a focal point of the Treaty. A question to ask: what happens when that water becomes polluted by the dominant vessel, the newcomers, whose agreement with that Treaty was supposed to ensure the wellbeing of the Waterways? This is a key question for follow-up to this work but also for other Indigenous youth who see it as important to do work in this area--water restoration and healing. Without clean water we will not survive in either vessel as The Two-Row Wampum continues to ground and embody and remind human beings that Indigenous people and newcomers are mutually dependent on the environment, despite worldview differences that might obscure this dependency (Ransom and Ettenger, 2001).

The Animals

The independence of the animal nations goes back to Creation, showing that animals organize governance through inspiring and feeding knowledge into the Clans themselves. The first Animal beings here held council and made a democratic decision to sustain Sky Woman and help her on her journey (Mohawk, 2005, p. 12). The first

Animals on Earth, began in the Water: Muskrat, Beaver, and Otter are said to have searched the bottom of the Ocean for soil with which Sky Woman could begin her walking. So the truth follows that without those sacred beings and their crucial aid, the world as we know it would never have existed (Cook as cited in Bruchac, 1989). There are other layers to the stories of Creation whereby Sky holder, Sapling, observed and made good relationships with Animal beings, birds and other elements of Creation already in existence. This reinforces the ethic of deep love for Creation, as the Good Minded Twin--or Creator in later discussion--provided that model of living where despite loss or adversity, maintaining happiness and contentedness and Peace remains the way forward.

The Birds

Gratitude is shown to the Bird life who were so essential to the continuance of Sky Woman's life when she first fell. Mann (2000) writes:

> Heron and Loon craned their necks up to see the falling woman. There she was all right, crashing down at a quick pace. "What sort of creature is that?" Loon asked Heron. "She has no feathers or flippers. I don't think she can live on the water." Heron glanced down to the water world below, and then back up at the flailing woman, tumbling down, down, down, arms and legs akimbo. "It does look as if she'll drown," Heron agreed. "We had better help her." With that, Heron and Loon flew close together, the feathers of their wings interlocking to form a feathery cushion. Positioning themselves just below the Woman Falling from the Sky, they scooped her up midair, breaking her free fall. (p. 1)

And so “When the wind turns warm in the spring, the people will be happy to hear certain birds singing” (Sundown qtd. in Cornelius, 1999, p. 76).

The Three Sisters (Corn, Beans and Squash)

Paired with the hunting responsibilities of men, the agricultural responsibilities of women traditionally (though not exclusively) goes back to Creation when this vital food was brought by Sky Woman, buried with Mother Earth, and to the Great Law of Peace which stipulated famously that women “shall be considered the progenitors of the Nation,” and “shall own the land and soil” (Mann, 2000, p. 214). Throughout my studies on Haudenosaunee sustainability, I nurtured and planted the seeds all together. White Corn, Heritage Beans and Squash, in mounds, taught me the importance of patience, of caring, after recovery from the intergenerational effects of Residential School in my family turned our dynamics into particular mental and physical and spiritual health challenges. When I did not speak to the plants for parts of the day, or sing to them, they often wilted. When I gave all of my attention, they thrived. Upon completing a 4 year attempt at integrating this process into my ‘method of doing research’, I began to see how focusing solely on the Three Sisters was a contradiction, because they teach us interconnection at heart, and I certainly have to thank Ione Anderson from Six Nations of the Grand River for her instruction on this point.

The Winds

Though there has been recent work done by Euro-Western environmental theorists, on how human connection is fed by wind/air (Abram, 1997), the mysteries of wind can best be rooted in cosmologies where they are described more precisely. The Four Winds provide a glimpse into Haudenosaunee metaphysical accomplishments. In

Sundown's address, transcribed by Carol Cornelius (1999) he states that "we may do it properly: we give thanks for the thing that is covered by a veil, where the wind is formed. And our minds will continue to do so" (p. 208).

The Thunderers

The Thunderers are known to be Elder beings whose protective powers are essential. In the Haudenosaunee Task Force on the Environment's Thanksgiving framed approach to renewing environmental wellness, Jack Jacobs (1995) gives thanks to the Thunderers for fulfilling their duties

> . . .to keep the spirits, which at one time roamed our Mother Earth and preyed viciously upon the people. The Creator placed these spirits beneath the ground. The Thunderers were given the duty of striking the ground where these spirits attempted to come close to the surface of the earth. (p. 137)

The Thunderers announce the return of rain and the running of all-important maple waters--sap, for spring cleansing and renewal (Johansen & Mann, 2000; Cook, 2000).

Elder Brother Sun

In Mohawk's (2005) retelling of Creation's beginnings, there is reference to a time when Earth was quite dark. Elder Brother Sun is known to be Sky Woman's brother, so close to his sister and so caring of life in the world below, that he chose to aid in his niece Mother Earth's work, his sister in her duties toward the tides and cycles of Time, and his nephew, the Creator of human life (Mann, 2000). This part of Creation is beautiful and really does signal the beginnings of something so different from the patriarchal myths of colonizing religion (such as is described in Lynn White Jr.'s work, 1967). At least this is one version of Creation, situated in one source.

Grandmother Moon

On Seneca conceptualizations of Time, McElwain (1987) writes that "The time of calendric ceremonies is determined by the observation of the phases of the moon, the ripening of the various crops to which the ceremonies refer, and the observation of the stars for Midwinter. The month of course is determined by the observation of the moon" (p. 271). McElwain's analysis of Seneca Time, contains a story of the Woman in the Moon--Grandmother Moon--and the sacred Dog who sits next to her and is said to undo her weaving. As Sky Woman, she vitalized life in many ways, and as Grandmother Moon, she continues to weave Time in cycles and tides.

The Stars

So to reiterate, Creation is about *all* of the Universe's beings, not even just those with which human beings seem to have the most immediate of relationships. Everything is in the Thanksgiving Address, from grasses up to Stars. Barbara Alice Mann (2003) writes of human spirits traveling to the Milky Way upon death. Mann describes through her gathering of stories, how the sources tell of a time before Sky Woman passed on to the Moon plane of reality, when she threw Stars into the Sky, "creating the Milky Way Trail, that Path of Spirits, to show her grandchildren the way home" (p. 34). Indigenous scholars coming up, could do some fruitful comparisons of Star Knowledge between Indigenous nations, the relevance of these teachings to deep environmental knowledge, and the gendered elements of these teachings.

The Creator

Sapling, the Right-Handed Twin, is known also as Shonkwaya'tihson, which Susan Hill translates as 'He Completed Our Bodies' (Hill, p. 25). When Sapling created

human beings, he also provided teachings, including prophecies, and promised more than one return to aid in times of difficulty. In these returns, when people forgot their teachings, he provided the Four Sacred Ceremonies (Mohawk, 2005, p. 76). He also returned to provide the Great Law of Peace (Lyons, 1992; Mann, 2000). These teachings or Original Instructions, are part of what Taiaiake Alfred (1995) calls a 'special consciousness', a good mind, unified for the well-being of all (p. 14).

Haudenosaunee environmental activist Lickers (1995) expands on this idea. He writes that in understanding the instructions of the Creator:

> In this state of the Good Mind, the proper way to act, feel and live became obvious to the people and the individuals. The Sick Mind could only perceive the patterns of chaos and ugliness and grew sick of living with the Earth or their own people. As people learned how to use the Good Mind great teachers began to teach these techniques. . .Respect, Power, and Peace became actions needed to carry out the instructions of the Creator. (p. 156)

Gratitude and the Good Mind are embedded in the cycles of life, essential to living life in a nurturing and sustainable way.

Conclusion.

In the way these things are told to us, these intricate stories which take many days to relate, there is room which motivates the individual to seek their own perception about life. This is why there are so many different versions of the Creation story. Different versions follow different threads of perception. And they all teach something about life, and the world. We learn about opposites, and a world that is neither all good nor all bad. We learn that the entire universe is a family, and we learn

that the greatest good is harmony. I have sought, in this chapter and in the next, to elevate traditional thought where Eurocentric ideology seeks to decrease the importance and the sacredness and the trueness of ancient knowledge. Errors belong to me alone, and I hope that only respect comes through in this text.

There is an immense depth and multi-dimensionality, of foundational Indigenous sacred knowledge. When I sat down with Kanienkehaka scholar Taiaiake Alfred in order to discuss my previous research questions on sustainability, economics and gender, I was led toward a more holistic and decolonizing analysis of my topic. As well, Taiaiake encouraged me toward looking more deeply at environmental movements. We had begun to talk about the allies of Indigenous Peoples in their struggles for land and freedom from state coercion, and Taiaiake named the environmental movement as one of the most important of these allied movements. We both paused though, our minds thinking on this question and then decided at once that perhaps this was a complicated relationship. Without an origin truth, there is danger of falling into "fear against wanting to understand and experience the experience of the past," Sheridan and Longboat (2006) write, which is therefore "a failure to know and to trust in the Beginning" (p. 371). Indigenous Peoples are already aligned with the knowledge of their Beginning, contrary to Eurocentric attempts to dislodge the stories in favour of Bering Strait mythologies (Deloria Jr., 2003).

Chapter 3

Temporality, Sustainability and Creation

A timeline that would speculate and construct a whole human species sullying and destroying their environment from forever onward is seductive (if a bit extreme) because it positions Euro-Western thought at the cusp of environmental enlightenment. Such thinking appears in the work of Krech III (2000) who presents absurd arguments about the ecological irresponsibility of Indigenous Peoples across the Americas. What is far more interesting about all of this is that the timelines involved exclude Indigenous Knowledge of any kind, while mentioning the Bering Strait crossing/s as a matter of fact (p. 32). Most importantly, the exclusion of Indigenous Creation stories as a foundational understanding of what responsibilities and worldview has been and continues to be gifted to Indigenous Peoples. This is not a paradigm shift that requires perfect and linear conduct and learning, but it is one that solves some of the conceptual puzzles of Euro-Western dominance.

If the Bering Strait myth (that Indigenous Peoples crossed a land mass from Asia and into the Americas) has a central purpose, it would be in undermining the perception that Indigenous Peoples have inherent rights to original territories. In this way, the theory is a political attempt at undoing Indigenous rights or, as Deloria Jr. argues, (1995), a scientific myth obscuring the ancient roots of Indigenous life in the Americas (71). The rootedness of Indigenous Creation stories/responsibilities demand that

environmental education align not with state mythologies of Indigenous subjugation, but with the Indigenous knowledge and systems of responsibility in relation to original knowledge—not as appropriation but from a place of friendship and support.

Creation stories and inherent responsibilities root and explain elements of an Indigenous worldview (Dumont, 2005) that is inherently respectful of Indigenous women's leadership and vision. Indigenous gendering, embedded in a worldview that is about flux and change and relationality, positions Indigenous women as leaders while valuing diversity. It seems safe to say at least that much since there is very little evidence to suggest that heterosexism and patriarchy were ever deeply rooted systems prior to colonization and Eurocentric gender binaries and hierarchies (Simpson, 2011). The reclaiming of Indigenous knowledge from non-heterosexist, non-patriarchal vantage points, means that temporal and spatial concerns can be iterated from Indigenous women's and Two-Spirit unique perspectives. The origins of Indigenous nations, grounded in the powerful visions and medicines of Indigenous women, directly connect to the subsequent strategies of colonial systems—usurping Indigenous women's leadership in order to destabilize Indigenous land based relationships. Examples of the colonial intersection of land and gender based oppression, come in many forms. Perhaps most notable in a Canadian context are issues of Indigenous rights and mining. In particular, the Tar Sands operations in Northern Alberta, have drawn attention for the project's displacement of Indigenous women. This chapter will explore some of these threads of interconnection in order to better understand the process of coming to know Indigenous sustainability as the renewal of a good life and good minds.

Eurocentric denials of sacred Indigenous Creation stories in their ongoing manifestation and unfolding, is a deep root of current environmental crises. As George-Kanentiio (2006) points out, “there is no account in any Native creation story that tells of the crossing from Asia to America over a narrow land bridge during the frigid times of the Ice Age” (p. 6). How do the persistent Eurocentric stories and myths that continually undermine Indigenous independence on an ideological and practical level, also serve to undermine sustainability? For Euro-Western euro-science, the idea of the Bering Strait is almost unresolvable because the onus of proof appears to be on Indigenous nations to prove that a theory that does not show up in their own knowledge systems is not true. The implications of archeological findings that position Indigenous Peoples as originally descendent from the ecologies of their original land bases (or lands moved to over time on the same continent) are multifaceted, inclusive of an Indigenous and original claim to a deeper set of responsibilities and knowledge base that grows from living creation, thereby providing a compelling argument that Indigenous Peoples are best positioned to address the complexities of environmental change and long-term planning. While the onus should be on Eurocentric science to prove an already unproven and disproven hypothesis, rather than on Indigenous Peoples to prove that their origin stories are true, delving into the debates surround Bering Strait theory reveal some interesting points. Vine Deloria Jr.’s (1997) central work on the Bering Strait myth reveals its underlying purpose—to justify settler colonialism while erasing Indigenous land based responsibilities. The Bering Strait myth attempts to erase temporal and spatial belonging for Indigenous Peoples, to assert a Eurocentric story about human

development, and to ultimately subjugate Indigenous land rights and responsibilities. As Deloria Jr. writes:

> Sandia Cave discoveries, along with the finds made at Hueyatlaco, Calico, and Toca da Esperanca, strongly suggest a human presence over 200,000 years ago in the Americas. This challenges not only the orthodox time estimate for the entry of *Homo sapiens* into North America (12,000 years ago) but also the whole picture of human evolution, which has *Homo sapiens* arising from *Homo erectus* in Africa about 100,000 years ago. (p. 70)

It means that there is not a common human origin point, but multiple origin points, all of which gift human communities with particular cultures and knowledge traditions that provide further insight into specific ecological phenomenon. Consulting with Indigenous Elders is not therefore a token gesture when planning around global climate change and its impacts on northern regions, it is an absolute necessity in far more comprehensive ways than have been attempted. What is at stake is a whole system of environmentally sustainable community planning that either takes as central truth the rights of Euro-newcomers to overtake Indigenous Peoples and lands, or the rights of Indigenous Peoples to maintain and grow their knowledge systems in relationship with original land bases and spiritual helpers who speak directly with them.

Indigenous Creation unfolds in ongoing oral and ceremonial occurences, evoking new/old relationships between individuals, their families and clans, their nations, and the diverse life-forms of their original territories. Another theme which arises here, follows the previous chapter's theme of renewal. Rather than pillars, perhaps each element of Haudenosaunee worldview is a tapestry, woven together, allowing for

continuance and renewal, but also for mistakes and new/old lessons. Accountability to future generations is what Faithkeeper Oren Lyons emphasizes within the *Gayaneshakgowa* or Great Law of Peace, not only to people, but to all of life and to future generations (Lyons, 1992, p. 33). Where mistakes have been made, the human community has been gifted with spiritual teachers and a system of democracy, to ensure always, a return to the original teachings. This tapestry is very different from a one-dimensional linear narrative, which seeks to ask if Indigenous Peoples are either perfect 'ecologists' or undercover ecological destroyers--a false dichotomy and a set-up at best (see the following chapter for more on this discussion).

Story as truth is one theme which frames this chapter on The Great Law and the teachings of Handsome Lake. The purpose of this chapter lies in reading for environmental and gendered themes within interpretations of the Great Law, and of Handsome Lake's teachings. As I moved forward, reviewing literature and attending teachings, I began to notice that there was and is a profound difference between feminist ways of re-centering the voices of women, and Indigenous approaches to a similar problem. Euro-Western feminist theories are not always able to stretch our imaginations far enough back to a time when the world was not patriarchal and colonial. Indigenous scholars have identified this limit of memory as a problem insofar as feminist theory then presupposes that somehow *all* of human culture, throughout all of time and space, has experienced patriarchy. With the voices of Indigenous women back at the forefront of how we learn, how we educate and how we actualize culture, we learn firstly that women have not been oppressed throughout time and space--certainly

not in Haudenosaunee culture. Patriarchy or absolute male dominance, was not permitted to flourish in Indigenous societies (Mann, 2000; Allen, 2003).

According to Gregory Cajete (1999), community in an Indigenous sense, is interconnected with, and inclusive of, the Natural world. As John Mohawk and Oren Lyons (1992) wrote of the Haudenosaunee system of democracy, there is a list of key elements which were outright ignored and eliminated in Euro-translation of the ideas, including the centrality of women's leadership and care for the land. Women's voices, central to the flow of a healthy, mature and sustainable society, are a part of a whole community. Children, Elders, and men and women whose gender constructs do not fit into eurocentric divides and Euro-Western colonial dichotomies, are a part of a healthy wholeness. This understanding can be found in Haudenosaunee oral tradition as well. Mann (2000) records a story in which a man is convinced to turn against his sister. A helping animal spirit, the Deer, in the story speaks according to Mann, "to the obligation of all other males to make up for the failings of errant brothers" (p. 102) while a hunter who befriends the woman not only takes on his appropriate responsibilities, of protection and caring, but also provides us with 'proof' that the norms of Haudenosaunee society did not lean toward patriarchy but toward community interconnection, mutual caring, and respect for all beings. Male and female balanced in a circular and cyclical way.

It is my argument that this balance is key to the overall ability of the Haudenosaunee to renew with each generation a way of life which environmental theorists may call sustainable. With regards to environmental sustainability, the Haudenosaunee it seems, re-learned human interconnection with ecologies of mind,

ecologies of place, and ecologies of sacred or spirit realms, even after falling into difficult and disconnected phases (Cornelius, 1999; Mann, 2000). When the Haudenosaunee fell into warfare and ecological destruction inherent to such conflict, a messenger (now spoken of in ceremony but known outside of ceremonial language as the Peacemaker) brought the People back in line with their Original Instructions.

Gayaneshakgowa, Great Law of Peace

Reading the Great Law's meanings in terms of its instructions or precedents with respect to environmental sustainability, opens up a number of areas of enquiry which could comprise a Haudenosaunee-centered curriculum in environmental education. One such area might be the relationship between agriculture, women's leadership as keepers or protectors or organizers of land (Hill, 2008) and the ways in which this relationship rectifies some of the confusions within Euro-Western thinking with regards to patriarchal dominance, land ownership, and unsustainable agro-business models.

> The Great Law is, in the words of Faithkeeper Oren Lyons (1992), important in human history. It is the earliest surviving governmental tradition in the world that we know of based on the principle of peace; it was a system that provided for peaceful succession of leadership; it served as a kind of early United Nations; and it installed in government the idea of accountability to future life and responsibility to the seventh generation to come. (p. 33)

Seven Generations thought is rooted in democratic practices, upheld by the governance structure of the Haudenosaunee.

There was a time when the nations of the contemporary Six Nations, were engaged in destructive behavior. Thievery, assault, murder and even cannibalism were part of the fraying tapestry (Shenandoah as cited in Wallace, 1994). The Peacemaker was born at this time, and his fate would be to bring what is now known to be one of the oldest living democracies anywhere in the world, to the Ononda-ge the "People of the Hills" (Onondaga), Onyota'a-ka "People of the Standing Stone" (Oneida), Kanienkehaka "People of the Flint" (Mohawk), the Gayohkohnyoh "Dwellers of the Swamp Lands" (Cayuga) and the Onondawahgah, "People of the Great Hill" (Seneca) (George-Kanentiio, 2006, p. 2).

The Peacemaker, in his journeys, began to travel with Chiefs from each nation, and met with a powerful woman named Jikonhsaseh, whose name translates into Mother of Nations (Shenandoah as cited in Wallace, 1994). Among their dual efforts, was the work of converting Tadadaho, a powerful Chief who was also part of the cannibal cult at the time, to the message of Peace:

> a man of peace, but with the power to do good things. When he was alive, as he moved about on the earth, he was getting his instructions from the spiritual powers. It is the same today. I try to tell people that as you are walking about, and you think you are using the good mind, the Creator is talking to you, coming into your mind. You think it's your own mind, but words are being put in and you're not aware. And sometimes there are the thoughts of another mind, the mind that would destroy life. That was the mind which had possessed Tadodaho before the transformation, before he embraced the Good Mind and

> became a leader of the Grand Council. His transformation was complete and he became a spokesman for peace and righteousness. (p. 15)

To minds wearied by patriarchal interferences, the Great Law of Peace creates precedence and foundation for something altogether more inspiring.

Of interest also, is the element of the Great Law story, which involves Ayowenta or Hiawatha; notably, Johansen and Mann (2000) are careful to distinguish this from the Longfellow poem. Ayowenta went through many terrible things, losing his daughters and his wife to the machinations of the people committing murderous and destructive acts. His travels brought him to a waterway, where birdlife had laid his path for him, and where Wampum beads were gifted for his condolence. If this journey is not one of total connection to the elements of life now derivatively described as 'environmental', then I can find no better story to prove the point of sustainability's ancient and cyclical derivations.

Again, elements of the Natural World are depended upon, and gifted to humans, in order to heal inner turmoil. The Wampum beads themselves are shown to hold within them the ability to create this healing and movement forward. The spiritual and metaphysical aspects of what Kahnawake environmental activist Lynn Jacobs calls sustainable livelihoods (Jacobs, 2002) are reinforced through principles of equality between all living beings, and Peace as the ultimate goal of these relationships.

Peace, or the striving for universal justice, is written of "as the Peacemaker understood it…[which] flourished only in a garden amply fertilized with absolute and pure justice" (A Basic Call to Consciousness, 2006, p. 34). Righteousness then is "the shared ideology of the people using their purest and most unselfish minds. It occurs

when the people put their minds and emotions in harmony with the flow of the universe and the intentions of the Good Mind" and finally that unity is renewed again and again through Reason, that "power of the human mind to make righteous decisions about complicated issues" (p. 33).

Jacqueline House (2008), the Cayuga spokesperson for the Longhouse during the difficult summer in which Six Nations began to protect a piece of land near the town of Caledonia, has said of her own understandings of the Great Law, that it informs greatly these efforts to protect the land:

> I just started to study the Great Law. . .It is peace, strength and the good mind. . .The strength comes from your good mind. Our Elders have always said, strength is not physical strength. It is always the mind. That is where you get your peace and peace, strength and the good mind combine to make the Great Law. (para. 20).

Haudenosaunee responsibilities are universally that of nurturing and caring toward the whole of Creation, for men and for women (Mann, 2000). As Tom Porter has said, "the chief is not like a chief executive or commander-in-chief, as non-Indians seem to think of a chief. . .Our term for leader comes from a root word that means 'nice' or 'good', and that is what we call our leaders" (Porter, 1992, p. 16). European newcomers have long had a difficult time believing the truths of Haudenosaunee life. For example, Mann (2000) points out that simply because male speakers were sent by women's councils, Eurocentric interpretations of how the Confederacy functioned skewed the picture in favor of male dominance (p. 165). Mann writes further, of the love given to the female leaders, the Clan Mothers, of the Confederacy:

> When it was a Clan Mother who had died. . .the gantowisas were in full charge, from the female runners they sent out announcing her death to the women's orations commemorating her greatness. This process was captured by John Heckewelder in a chapter he dedicated to the funeral of a Clan Mother. . .So great had this woman been that even the Thunderers mourned her passing, spinning out a tornado as the capstone of her funeral services. (p. 179)

Women played a vital role as well in ensuring that the destructiveness prior to the Great Law's formation, were healed. The "insane chief and shaman…terrorizing people with his foreign-inspired cannibal cult, in a strong-man raiding society" (p. 36) is how the problems were focalized by one historian. Jikonshaseh taught the Peacemaker and other men songs and words which would transform the mind of the insane chief (Shenandoah as cited in Wallace, 1994, p. 12-13). And although "there were women who backed the Cannibals, and men who backed the Cultivators, the war was ideological, fought over which means of life would prevail, women-centered agriculture or the male-centered hunt" (Mann, 2000, p. 36). This is not to say that hunting societies complementary to agriculture are in any way patriarchal *now* but that they are balanced with particular systems of farming and gendered teachings. Instead, this story stands as a warning against a kind of male dominance which has most recently been ushered in by colonizing society.

Intertwined with this human-based understanding of governance, is the impetus toward maintaining (and renewing) Peace between human communities and communities of animals and spirits--without which governance would be impossible (Sheridan, Longboat 2006). The Great Law, is here to this day among Haudenosaunee

who nurture this way. The Great Law is, indeed, one of the oldest democracies in the world and influences not only sustainability theory, but also gender theory and emancipation, and theories that seek to undo the economic divides between rich and poor (Lyons, 1992). Despite interferences and external pressures, the colonizing system has failed to destroy the oldest living democracy.

Traditional thinkers also share insights into the ways in which the sharing of resources connects to the limitation on the destruction or over consumption of those gifts. The governance system of the Haudenosaunee stresses land sharing, as George-Kanentiio (2000) describes,

> The key to Iroquois land tenure was custodianship. That which was given had to be returned in the same condition as when it was taken, if not better. Each generation was in a position of trusteeship for future generations, those 'whose faces lie beneath the ground.' (p. 36)

Sustainable land use and Indigenous governance are interconnected here. Continuing onward from the Great Law of Peace, Haudenosaunee sacred knowledge continues into post-contact contexts.

The Great Law is immensely significant to understanding environmental sustainability in a context where the idea's possibilities are already actualized. Egalitarianism and the nurturance/power of women, balanced with complimentary works of men, and environmental wellness, are essential to the Great Law (Oren Lyons & John Mohawk, 1992). This is more than a political governance system, but is also a whole way of life. This is a way of life, according to the late Chief Leon Shenendoah, based on kindness and caring toward all living beings and on the equality of all beings in

Creation (Shenendoah as cited in Wallace, 1994). In the Words that Come Before All Else, Henry Lickers (1995) articulates this principle as well, that equality goes back to the Creation story's origins, that the whole of Creation gave human beings the impetus to be thankful, humble working always toward peace (p. 155).

Equality is thus seen as part of the Natural Law and embedded governance of the Haudenosaunee and this interconnection leads to popularly studied themes of women's power or importance within the Great Law of Peace. Taiaiake Alfred (1999) reiterates this theme, stating that

> It is not only the often-celebrated role of selecting chiefs that gave Rotinohshonni women power, translated to contemporary terms, where men served as police, warriors, hunters, and statesmen, women made the economic decisions and social policy and checked the political decision-making power of men in very real ways. . .There is a great need for women to re-take their rightful place in all of our political and social institutions. (p. 13)

Throughout the literature, these themes are emphasized.

Relationality with human life and Earth's life, is understood also through the Great Law. Intertwined with environmental guardianship and land sharing principles in the Great Law, are places for female leadership, as mentioned by Taiaiake Alfred. To expand on this theme, the leadership position of women is at least in part, in cultivating the agricultural basis of Haudenosaunee appropriate economy. So this is not a patriarchal, destructive or disconnecting agricultural regime.

When I spoke with Eva Johnson about the motivation and inspiration behind so much of the Kahnawake Environment Protection Office's work, she named Seven

Generation thought as central, the Faces Not Yet Seen as the impetus to leave a beautiful landscape behind, beautiful homes, and healthy selves. The Coming Generations are at the heart of this willingness to make beautiful that which a community is given to care for (Johnson as cited in Hall, 2005).

The purpose of bringing up this last point, is to further underline the importance of particular cycles in which spiritual teachers and messengers return to the Haudenosaunee to help in times of crisis. This phenomenon speaks to the importance of Thanksgiving, of the original ceremonials and other responsibilities maintained by traditional Longhouse people. Thanksgiving as a central practice is a fire of continuity and renewal ensuring temporal belonging and spatial belonging or, rectifying situations that crack those foundations. Identity, belonging and thanksgiving are reciprocal as, "Those who lived in the land were of the land; they spoke nature's language and moved to her rhythms. Displace them, silence them, integrate and convert them at great risk to us all" (George-Kanentiio, 2006, p. 134-135).

Whatever terrors the colonizing system has managed to create for Indigenous Peoples, there is always still the foundational element of Indigenous sacred knowledge, and of resistance rooted in this knowledge. Colonialism, a foolish and horrific waste of time and energy, does not eradicate the ceremonials and new teachings which continue to connect the people to Creation.

The Gaiwi:yo (Good News) teachings of Sganyadai:yoh (Handsome Lake)

The role of prophecy in Indigenous environmental teachings is a profound element of temporal and spatial belonging. Sganyadai:yoh or Handsome Lake, provided prophetic teachings about environmental destruction as an inherent element of the new

challenges that were before the people. For many Haudenosaunee, the teachings of Handsome Lake, cleared a pathway through colonial interferences (including those of a religious nature), back to the Original Instructions. Included in this was a renewal of the cultivation of sacred foods, abstaining from alcohol and renewing relationships with traditional ceremonials (Cornelius, 1999, p. 76). In the context of land loss, during the American 'revolution', the Haudenosaunee were gifted teachings which would lay a pathway of survival and ensure that future generations could renew their own connections.

Ceremony

Ceremony, renewal, thanksgiving, and caring for the people and environments of Indigenous community, are all intertwined. As the Haudenosaunee emerge from the intensity of colonialism's ongoing stresses, ancient ceremonies continue to renew people in their relationality with all parts of Creation. Mann (2000) explains that the Thanksgiving Address itself is ceremony (p. 488). Ceremonies are done by traditional people, with the seasons, with the passing of loved ones, with the sacred foods, and at the beginning and end of all gatherings (Cornelius, 1999, p. 92). Ceremonies are done for the well-being of all, as Mohawk (2005) writes,

> These rituals are organized around things which support life on earth--the earth itself, seeds, thunders, sun, moon, corn and beans and squash, berries. ...It is a way of directing the community and individual thought to the universe both near and far. (p. xiii)

Sacred knowledge thus grows, is added upon, through ceremony, but also accessed from ancient sources--it seems as though a good source of question exists here. The

cycles/circles of knowledge and how knowledge grows in timelines where past, present and future are understood in particular ways.

Ceremony renews interconnection and relationality. How can Euro-Western minds speak about sustainability when ignoring or even interfering with, these processes? Lyons (1984) writes, that:

> As chiefs we are told that our first and most important duty is to see that the spiritual ceremonies are carried out. Without the ceremonies, one does not have a basis on which to conduct government for the welfare of the people. This is not only for our people but for the good of all living things. (p. 5)

Again, this is the depth of leadership that the colonial project sought to undo. Renewing and honouring original governance is part of renewing relationality to land/place and temporal responsibilities.

Treaties

The literature provided by Haudenosaunee thinkers, has far reaching implications for sustainability theorists. Notions of time, women's cycles, women's power and influence, when they are all grounded in natural world sources, tracing back to Creation, moving through to governance systems which are protected in turn by sacred treaties. The implications of Haudenosaunee articulations of the treaties and their importance, can also be understood as a warning: that ignoring the treaties is done to the detriment of a whole and balanced way of life. Treaties provide oral teachings about the ways that newcomers and Indigenous Peoples should be living together in an ecological context. Hill (2008) reminds the reader that "treaty relationships were

informed and defined by the lessons of Haudenosaunee cultural history (p. 23). Hill continues, that

> As Canada and the United States seek to improve relations with the Haudenosaunee with reference to issues of land rights, the treaty relations need to be 'polished' and once again serve as the lenses through which we view and understand the principles of the relationship between our nations. (p. 23)

This essential element of maturation and of a society's possibilities to achieve maturity, relates directly to the ability to live life sustainably and in balance with the natural world. Again, the teachings of women are essential to understanding how sustainability would look in a true or grounded sense. If there is an element to the governance system of the Haudenosaunee which leaps out as having been deemed unacceptable by the Euro-Western governments which sought the Confederacy's model to inform its own, it is the element of strength and responsibility gifted to women (Lyons & Mohawk, 1992). If the mythologies of Eurocentric colonialism seek to defeat Indigenous governance systems, then they do so with a particularly harsh intent toward the voices of Indigenous women (Smith, 2005). The absurdity of colonialism itself, the insanity of total destructiveness, is reversed in a strange act or dance, intended to distract and to pollute minds now disconnected from the natural world which would renew and sustain human beings in truer ways.

With an eye toward seeing the ways in which Haudenosaunee women's governance strengths are undermined by colonization, it is first good to acknowledge these strengths in and of themselves, and the resilience of Haudenosaunee women. In

Barbara Alice Mann's (1997) critical analysis of McElwain's retelling of the Woman in the Moon, or Grandmother Moon, it is reinstated that Elder Brother Sun is indeed a male presence. As well, the explicit link between Grandmother Moon and Time's continuance is made by Mann:

> [McElwain's retelling of this] tale only pops into perspective if you know beforehand that the Woman in the Moon is Sky Woman, long since called "Grandmother," who was transported to the lunar surface upon her death by her favorite grandson, Sapling, the Sky Holder, to light the night so that her descendants might not become afraid, lost in time. . .the dog is the White Dog of the midwinter ceremony, bearing the thanks of humanity that continuously create reality while the Grandmother of Existence beads on, steady as rain, inexorable as night. (p. 424)

Mother Earth and Grandmother Moon responsibilities gifted to Haudenosaunee women are multi-dimensional, layered, and rooted in deep time teachings. Eurocentric tap-dances around notions of 'essentialism' will be covered in the next chapter as an overall and emergent problem related to Euro-Western inabilities to deal well with deep time. The significance of how thoroughly Eurocentric theorists have forgotten the influences of Haudenosaunee women on early feminism can be expanded on here for its environmental implications as well.

On the other side of the coin, there are far reaching implications if elements of colonization which have conspired to undermine the power of Haudenosaunee women's leadership remain unchallenged by theoretical work which assumes male dominance to be universal (Mann, 2000). The colonial problem cannot be understood well from the

same Eurocentric perspectives that root the system. By universalizing the idea of male dominance and gendered binary, Euro-Western theorists reinforce settler dominance and resulting confusion in relation to sustainable futures. The perspectives of Indigenous women and Two-Spirit people reveal essential links between gendered oppression and domination and destruction of the natural world as a central colonial project. Sexualized and ecological violence are inextricably linked (Tuck & Yang, 2012) and this link correlates with known euro-settler fear and admiration of Indigenous women's leadership (Mann, 2000) and Two-Spirit (and gendered, sexuality based) freedoms and autonomy in Indigenous contexts. The overturning of treaty is deliberate in an effort to invade and overtake land (Tuck & Yang, 2012). It follows that reaffirming our commitments to treaty relationships is essential to sustainable and just community movement/s.

Reaffirming commitment to treaty means reaffirming commitment to the renewal of Indigenous identity and belonging. In another, more recent treatment of Indigenous identity as a general concept, Alfred and Corntassel (2005), point to a dynamic, relationship based approach to the definition. Being Indigenous is about becoming, they tell us, as "being Indigenous means thinking, speaking and acting with the conscious intent of regenerating one's indigeneity (p. 614). Alfred and Corntassel write further that reconnecting to land, to our languages, to our visions of freedom, our traditional diets and ultimately to community solidarity, are among the vital acts that feed our renewal. Organizations such as the Kahnawake Environment Office should be credited with the innovative and truly ground breaking work--bridging environmental needs and traditional knowledge and responsibility--which they do.

Ensuring that what is already implicit is actualized requires material as well as spiritual and intellectual commitments. The missing element of ancient knowledge in contemporary environmental theory—as though somehow the concept of sustainability sprung full-grown from the skulls of Euro-Western thinkers (Jacobs, 2000)—is a temporal problem connected to the inability and unwillingness to perceive the spiritual as well as material basis of reality. The colonial myth of development (Smith, 2000) creates a subsequent temporal limitation whereby Eurocentric impositions replace the Deep Time communications in Creation. As a result, hierarchy, divisiveness, and unending intellectual debate replace nuanced, layered, trickster narratives.

Chapter 4

Space, Time, and Indigenous Belonging

The purpose of this chapter is to look at the deeper worldview differences between Indigenous Knowledge and Eurocentric or Euro-Western Knowledge, that can be bridged in order to better address important environmental and community planning challenges. While Chapter 1 is concerned with the ways that knowledge itself is constructed in order to uphold colonial systems, Chapter 4 is focused on worldview differences that lead to settler colonial complacency in the maintenance of colonization and the ongoing denial of Indigenous rights to cultural, political and socio-economic renewal. Broadly speaking, there are four areas of focus for this chapter that better helps us to understand some of the barriers to decolonization. These areas are: spirit and reality; pace or place and our relationships to spiritual realities of Indigenous territories; temporality and time; and finally gendering and identity. There is a deliberateness to the colonial system, which I take for granted in order to address the privileges that it grants settler colonial theorists. At the same time, I see great hope in addressing the system in order to appeal to allies on a deep level. Interrogating colonialism and eurocentricism,

while promoting and actively engaging in the renewal of Indigenous identity, culture and worldview. The problem with sustainability isn't just that it is an uncertain concept, but that it has been corralled by Eurocentric meaning, repackaging colonialism in ways that would save 'the commons' for settler society's long-term uses. Solving the crises of environmental destruction means untangling thoroughly from the colonial project, abandoning its insidious hold and imagining a world seeded by Indigenous nations.

Reviewing literature on sustainability led to questions about Indigenous meanings of the temporal and spatial dimensions of environmental wellbeing. As discussed in Chapter 1, it is essential to ground an enquiry into the idea of environmental sustainability within an Indigenous worldview, but this grounding can also be layered and complicated as the project of renewal moves forward. First, there are very intentional acts that have subjugated Indigenous perspectives and power in relation to the traditional territories that have always been a part of their knowledge base. This element of governance evokes vastly different understanding about the nature of land/space and time as an aspect of belonging and identity. There are also intersections that have to be attended to in order to address the attempted erasure of Indigenous Peoples from their lands and the re-emergence of Indigenous pathways after decades of oppression. Typically, these intersections are discussed in terms of the challenges facing Indigenous communities and the ways that human need and environmental need interconnect. Further to this point, the ways in which Indigenous women understand their place in the cosmologies of the Americas are profoundly tied to the time/space, material reality/spiritual reality dialogues which physicists are now engaging with. Allen (1992) calls childbirth an incredible shamanistic act in itself

thereby reminding us of the continuity between culture, ceremony, and spiritual/natural belonging (28).

To gender in an Indigenous way, returns again to Creation. Truly understanding the importance of Creation stories might mean understanding the centrality of the beginning in narratives and practices of forever-belonging and becoming. Creation stories position Indigenous women in a place of respect while also understanding the fluidity of gender based teachings. Colonization introduced rigidity and essentialist binaries (Mann, 2000). Heteropatrarchy, as Smith (2010) describes it, is a building block of the imperial and colonial systems. The heterosexual, patriarchal family is a reflection of this ideological building block in large part because this is also the family model that must consume and produce in privatized settler colonial parcels of land. According to Rifkin (2010) "compulsory heterosexuality can be conceptualized as an ensemble of imperatives that includes family formation, homemaking, private property holding, and the allocation of citizenship, a series of potential 'detachable parts' fused to each other through discourses of sexuality" (p. 37). My own perceptions (which thankfully were false) that my family would not accept who I was, were rooted in the stories that I heard about the colonial schooling system. It is vital that we dismantle the heterosexism imposed by the colonial system, as Vowel (2014) writes:

Even among nations with traditional binary gender roles or hierarchical socio-political orders, there is nothing that can accurately compare to the system of patriarchy imposed by colonialism which mainstream Settler feminism allies itself against. Our internal struggles with traditional roles are not analogous to the issues that Settler peoples have with their traditions, and so using Euro-Western liberal theory to deconstruct them is

inherently incongruous. (p.1) We need to root this work in our own systems, inclusive of the democratic and inclusive understandings of dynamic, growing information.

Beginning with Creation is to return to creation which adds to our understanding of what experiential learning can look like in a myriad of embodied practices. Gardening evokes the stories/storying of Sky Woman who danced and sang thanksgiving and life into being (Horn-Miller, 2016). This writing moved from an individualized attempt to understand sustainability from within a Haudenosaunee worldview, toward an integration of those lessons in community planning, while also addressing ongoing resistance in Eurocentric environmental theory to the support of Indigenous Knowledge in its fullest sense. Indigenous planning is being reclaimed as a way of challenging colonialism, re-asserting culturally rooted processes in place and time (Matunga, 2013) while also diversifying the project to be inclusive of all members of Indigenous communities. At the same time we have to engage in alliance building in a context of ongoing settler colonialism (Tuck & Yang, 2012).

Indigenous resistance is rooted in an Indigenous worldview (Dumont, 2005). The wholeness of an Indigenous worldview is contextualized in an ecological context, as Henderson and Battiste (2000) describe,

> Ecological teachings have defined for Indigenous Peoples the meaning of life, our responsibilities, our duties. They have also developed our consciousnesses, our languages, and what others have categorized as our 'cultures.' these teachings have allowed us to flourish. (p. 9)

An Indigenous lens on sustainability then is also as Simpson (2011) describes, as "Elders direct our people to live their lives in a way that promotes positive relationships with the

land, their families and all of Creation" (p. 68). Further, Simpson describes the ultimate goal of our resurgences and renewals as producing "more life and to re-create the conditions for living as Nishnaabeg peoples" (p. 144).

Reviewing literature on sustainability leads to questions about Indigenous meanings of the temporal and spatial dimensions of environmental wellbeing. As discussed in Chapter 1, it is essential to ground an enquiry into the idea of environmental sustainability within an Indigenous worldview, with an understanding of how layered the interferences have been, particularly as a gendered project. A critical Two-Spirit, Indigenous feminist reading of environmental theory would prioritize the relationships of original nations to the temporal and spatial dimensions of life in Turtle Island, while exploring the complexities of relationship and identity, thereby undoing the heterosexist constructs of Indigenous social structures, challenging the violence of heteropatriarchy, and informing critical theory on deeper levels (Smith, 2011, p. 43). Particular points of convergence from a Euro-Western worldview are worth noting in a larger critique of eurocentricism within environmental discourses and activisms. First, there are very intentional acts that have subjugated Indigenous perspectives and power in relation to the traditional territories that have always been a part of their knowledge base.

This element of governance evokes vastly different understandings about the nature of land/space and time as an aspect of belonging and identity. Then there are intersections that have to be attended to in order to address the attempted erasure of Indigenous Peoples from their lands and the re-emergence of Indigenous pathways after decades of oppression. Typically, these intersections are discussed in terms of the

challenges facing Indigenous communities and the ways that human need and environmental need interconnect. Dismantling colonial thought from within an Indigenous paradigm evokes central understandings of reality as rooted and sourced from Creation (Sheridan and Longboat, 2006). For Indigenous Peoples, life, according to Allen (2004) "is composed of both space and time; everything is moving, interacting, communicating, exchanging information/energy" (p. 29). As the realities and gifted knowledge systems unfold, the challenge for Euro-Western thinkers becomes that of a basic premise of reality in the Americas—as rooted in unfolding Creation 'stories' of Indigenous nations. In more precise words, "The old vision of myths as symbolic representations of mental realities and well-reasoned truths must be abandoned" (Deloria Jr., 1979, p. 163). Mohawk's (2010) writings reflect on the problems caused when human beings take on the responsibilities to alter life normally left to powerful spiritual beings--*Jo Ha Cho* and *Ho Cha Ne Tom* which mean 'the creator of life' and 'the givers of life' respectfully: The creator of life is that which existed in the universe, and the *Jo Ha Cho* is what

> existed here on this planet in this sphere….Now we're faced with a reality that people have been playing with the *Jo Ha Cho*…They would claim the right to splice genes, to fool with the building blocks of life (p. 276).

Sustainability then, is in large part, about the responsibility to change life forms, "back to make it the way it was when it was supportive of life on the Earth" (Mohawk, 2010, p. 276). The consequences of recognizing the disproportionate affects of environmental toxification on Indigenous communities throughout Turtle Island, go beyond even justice and equality.

Euro-Western physicists have critiqued reductionist sciences, seeing reality instead in terms of an "unbroken wholeness of the totality of existence as an undivided flowing movement without borders" (Bohm, 2005, p. 218). As Narby (1998) writes of his experiences coming from those very frameworks and trying to work with medicine societies, "I became familiar with certain limits of the rational gaze: It tends to fragment reality and to exclude complementarity and the association of contraries. . .The rational approach tends to minimize what it does not understand" (p. 139). Limitations on our understanding of reality is taken up by physicist Peat (2000) who writes of time in a cyclical way, but also of time's linkages to deeper understandings of reality, more complicated than Euro-Western theorists have managed to entirely understand. Limited understanding turns into imposition when material/physical explanations are used against Indigenous Peoples, case in point is the the Bering Strait theory. Narby also points out that his experiences of coming to understand that Indigenous Peoples did in fact receive information from plant life, for example, were scoffed at by mainstream environmental thinkers (p. 139).

The boundary-making of colonial systems, inclusive of land demarcation and identity formation (Coulthard, 2014) extends also to ideologies of relationship in time and space and life itself. Rationality and control, the denial of life's cycles, and the hierarchy of human over environment/animal, are entangled in the same colonial system. For example, Foucault (1988) dismantles the ways that social organization in the West, reflect breakages, reductionism, and demonization of an 'other' as a psycho-social pattern whereby

> The substitution of the theme of madness for that of death does not mark a break, but rather a torsion within the same anxiety. What is in question is still the nothingness of existence, but this nothingness is no longer considered as external, final term, both threat and exclusion; it is experienced from within as a continuous and constant form of existence. (p. 16)

The fear of death and denial of life's cycles is, according to Deloria Jr. (2003), a barrier to understanding what belonging means, since in Christian/Euro-Western theology, "Death was early considered as unnatural to the creation and as an evil presence resulting from the disobedience of Adam in the Garden of Eden" (p. 167).

Gendering temporal and spatial relationships in Indigenous ecological contexts requires an acknowledgement also of the deep connections between natural law, peace, and a way of life that is non-hierarchical. A good example is found in Blackfoot politics, Ladner (2003) writes,

> *Siiksikaawa* was without political hierarchy and power as it is exercised legitimately in the Western-Eurocentric tradition. Further to this, leadership was not about gaining the ability to exercise power and coercive or "sovereign authority." Under normal circumstances it was not about a single person or an executive committee legitimately using power over a society which had little or no say as to the application of that power. (p. 138)

In a similar thread, the wholeness of Indigenous reality reflects in Creation. Mann (2000) writes on the twin males of Haudenosaunee Creation:

> that equilibrium was the animating purpose behind 'gendering' or the interaction between male and female energies. . . like the Twins, the sexes functioned as

> cooperative halves. At once independent yet interdependent, they worked to create the perfect whole of society. (p. 60)

There are some Euro-Western thinkers who have attempted to come to terms with the idea of gathering information from plants, animals and dreams. Narby (1998) explains that Yaminahua ayahuasqueros (medicine people who utilize ayahuasca in ceremony) learn songs in order to communicate with spirits. In a sense, spirits are songs, or songs are spirit or sound wave (p. 98). Narby's work has been critiqued for a lack of attention to the importance of the ceremony, and the importance of tobacco as a gift to the spirits in any interaction (Allen, 2003) which serves as a caution that Indigenous Knowledge Keepers and Elders are ultimately best able to describe their own teachings. His sources do provide a clue as to the importance of tobacco as a healing and teaching medicine, allowing the person gifted with that relationship to "take their consciousness down to the molecular level and gain access to bimolecular information" (Narby, 1998, p. 160). Cajete (2000) elaborates on the animal relations who advise and sometimes warn human beings about appropriate conduct, responsibility, and identity:

> . . .the understanding gained from animals about ecological transformation was portrayed in many forms, and wherever Indian people hunted, these traditions abounded. Once again, while each tribe reflected these understandings in unique ways, core understandings were similar from tribe to tribe. The essential focus was relationship, and the guiding sentiment was respect. The central intent revolved around honoring the entities that gave life to a people. (p. 8)

Indigenous environmental knowledge is rooted in kinship, rather than biocentric or anthropocentric frames of reference (Nelson, 2008). Kinship, rooted in relationality to

place and time, beginning and forever renewing through the Creation stories of Indigenous nations, provides ancient relationality which keeps human beings 'in our place' as humble and thankful members of particular ecological orders.

Achieving human maturity in relationship with the Natural World is articulated by Allen (2010) whereby:

> It has been said by some of the elders that until a people has clarified its place in the Great Mystery, and has discovered those mythic/ceremonial traditions that maintain its lineage, no real nationhood is possible. It is as though, they maintain, a community bereft of profound and widespread connection to the multitude of kinds of life, of intelligence, that exist all around remains a child for as long as it can survive. (p. 10)

Spatiality and Place.

Relationship with place is another way of understanding a sustainable relationship with diverse environments. The connections of Indigenous Peoples, from time immemorial, are embedded here on traditional lands and territories. As Bryant (1995) argues, producing a general of "environmentalists" while failing "to effect any meaningful improvement in the environment" (p. 47). Dismantling the underlying problems, rooted in eurocentricism, benefits environmental thought. Colonization has primarily been about the expropriation and undoing of Indigenous lands and the manufacture of Indigenous dependency on the settler colonial state (Alfred, 2009). The problem of place and of relating well to place, is a central problem of colonial thought (Deloria Jr., 2003). McLuhan (2001) writes about the NASA image of Earth as a

symptom of human narcissism. In conversation with a colleague, he is quoted as saying that the astronauts' images are "a picture of ourselves. Ego trip. Self-love" (p. 141).

In some areas of environmental thought, the maintenance of a colonial order ensures that land and therefore place, is understood as state or settler colonial property. Ideas of tamed and pristine wilderness parallel empty lands, which are therefore up for grabs by colonial power. Merchant points out that John Muir, among the most well-known of the early conservationists, held fairly problematic ideas about Indigenous Peoples (Merchant, 1998; Merchant, 2003). Wilderness itself is empty land--stolen land-- as Merchant continues:

> With the taming of wilderness, the removal of Indians, and the repression of blacks, the American Eden became a colonized Eden that could be extended to other countries. The control of the wild represented the kind of state that Euro-Western societies could export throughout the world to colonized "Other" lands. (p. 389)

Leopold's (1948) Land Ethic, whereby human beings are instructed to turn "from conqueror of the land-community to plain member and citizen of it" (p. 240) has been dismantled by theorists concerned with theoretical complicity with racism and sexism (Patricia Limerick as cited in Merchant, 2003). This should come as no surprise since Leopold's Land Ethic is neutral in addressing the hierarchies of ownership and belonging intrinsic to colonialism. Place does not figure specifically into the narrative even though a generalized sense of place or land is referenced as the central necessity.

An example of this issue arises when notions of reclaiming or renewing 'the commons' arises. Land reimagined as 'the commons' is still within Indigenous

jurisdiction, as Coulthard (2014) reminds us. Educators warn that broader concerns of culture need to be attended to through a critical lens. Indigenous centered and decolonizing scholarship has much to offer to better understand and integrate new ways of knowing across disciplinary boundaries. As calls for transdisciplinary and interdisciplinary knowledge increase (Miller et al., 2008), work that integrates ceremony, storytelling, gardening, and other embodied practices, will become increasingly important. At issue is not only the myth of the tragedy of 'the commons but the myth of the commons itself. Hardison (2006) adds to this critique through a discussion about the problematic meanings of land that environmental thinkers in 'the commons movement' have replicated (p. 1). In its most general sense, "the mistake," Hardison writes, "is in believing that the 'cultural commons' is a monolithic, unitary concept for describing a set of shared resources collectively owned by everyone" (p. 3). The meanings of land and territory, encoded in Indigenous cultures, lead to critical reading of a return to the ongoing problem of *terra nullius* in the colonial imagination.

Hardin's (1968) eugenicism and overtly colonial rhetoric in The Tragedy of the Commons is a symptom of deeper problems in environmental theoretical movements (Smith, 2005, p. 73). His work on the so-called tragedy of the commons, begs the question of whose 'commons' Hardin imagined. Conceptually speaking, the whole notion of 'the commons', has come to replace grounded Indigenous theory on the matter of land and human governance. On one hand, 'the commons' are contested as sites of destruction, committed universally by human beings (Hardin, 1973). On the other hand, 'the commons' are spaces of reclamation where democracy is promoted. Either usage ignores the specifics of Indigenous treaty rights and responsibilities. 'The

commons' according to Taylor (2003), is public space (p. 63), which seemingly does not prioritize any preceding rights or responsibilities as though these spaces were neutral and without human signature. Others have warned that the reclamation of 'the commons' rationalizes the denial of Indigenous rights in favor of public consumption (Hardison, 2006). An often cited example of Euro-Western environmentalism's willingness to detach Indigenous treaty responsibilities from the need to deal with environmental breakdown, fall under the label of conservationism. The conceptualization of 'the commons' as empty of Indigenous Peoples, might be linked then to the willingness of some elements of Euro-Western sustainability activism, to actively oppose Indigenous rights.

The idea of empty land was accompanied by the Eurocentric understanding of violable land—land was there to be taken and essential acts of violence should accompany thievery. As Smith (2005) continues to explain, gendered elements of violence were always interconnected with land thievery. Indigenous women's bodies and Indigenous lands were and remain, equally violable in the eyes of colonizing entities.

Temporality

Sustainability necessarily evokes a question about time and its meanings. For example, food security advocates discuss "going back" to plant based diets (Sabaté & Soret, 2014), and "harnessing the potential of ancient genetic material" (Arsenault, 2014) in order to provide sustainable food production for future generations. Responsibility to not only to future generations, but generations of the past and present need consideration, given the context of colonization and also the benefits of actually centering Indigenous Peoples' knowledge and participation in sustainability planning.

Time, timelessness, temporality rooted in forever belonging to place, is described by Peat (2000) who writes that from Indigenous perspectives,

Everything that comes into manifestation is part of a cycle of time and will flower and die. Unless it is periodically renewed it will decay and die…at the ends of the great cycles the people must renew their alliances and contracts with the spirits and power and energies of the world. There may also be a time when the people acknowledge that their society is approaching its end and they should not enter into a further period of renewal. (p. 215)

Some environmental thinkers have noted the non-linear nature of temporality in Indigenous environmental traditions. Reflecting on Indigenous North American traditions, the travelling of the days is, to Abram (1997):

> as though the luminous orb of the sun journeys into the ground each evening, moving all night through the density underfoot to emerge, at dawn, at the opposite side of the visible world. . . So the journey beyond-the-horizons can lead under-the-ground, and vice versa. We begin to glimpse here the sacred identity, for oral peoples, of the topical regions that we have come to call 'the past' and 'the future.' (p. 221)

There are deep implications for how this cyclical understanding of time manifests for those concerned with sustainability and belonging, temporal realities. Sheridan and Longboat (2006) write that "If we accept that time is imagination's natural habitat, time's eternal return is always ecologically manifest" (p. 371). Indigenous Knowledge then is always rooted in place and in 'deep time.' Renewing Indigenous responsibilities to their original land bases, through the return of lands and the collective healing of our

relationships to whichever Indigenous territory we live on, necessitates an understanding of Time and Space from Indigenous perspectives. Vine Deloria Jr. (1994) writes that "Context is therefore all important for both practice and the understanding of reality. The places where revelations were experienced were remembered and set aside as locations where, through rituals and ceremonials, the people could once again communicate with the spirits" (p. 67). Temporality is a crucial barrier to settler colonial belonging and therefore understanding what responsibilities Indigenous nations hold within their territories. The argument here is not simply to increase understanding, but to remove oppressive systems which interfere with these responsibilities.

The capacity to answer questions of sustainability is the capacity to answer questions of longevity and wellbeing in temporal as well as spatial practice. As Sheridan and Longboat (2006) write, "without all beings, being is incomplete, and that is why the Onkwehonwe, the 'real people,' say, 'everything forever!'" (p. 380). Paula Gunn Allen writes of time, that the traditional understanding of time was timelessness (Allen, 2003). Nishinaabe knowledge keeper Edward Benton-Banai describes time as particular to Earth's existence, and enough of a mystery that it is beyond human comprehension or reach Benton-Banai, 1988, 45).

Indigenous renewal is therefore at the center of decolonization and environmental, human wellness. In Allen's (2003) words, renewal to Indigenous societies is part of a cycle of belonging—to territory, to cosmos, to all of Creation where an original people are rooted:

> The Changing Time, as I will usually refer to this cosmic event, saw most of Native America dissolve; it did not die. Rather, it 'morphed,' and is currently

> emerging from a long period of purging, remade. Remaking something is part and parcel of American Indian Thought. (p. 16)

Time as cyclical and specific to events is an idea articulated by the late Leroy Little Bear whose writings speak to the cyclical nature of life in this way:

> the cosmic cycles are in constant motion, but they have regular patterns that result in recurrences such as the seasons of the year, the migration of the animals, renewal ceremonies, songs, and stories. Constant motion, as manifested in cyclical or repetitive patterns, emphasizes process as opposed to product. It results in a concept of time that is dynamic. . .Time is part of the constant flux but goes nowhere. Time just is. (qtd. in Battiste and Henderson, 2000, p. 78)

Time's relativity to place is rooted in culturally specific and place specific understandings . This point has been made by Tonga educator Okusitino Mahina who tells us that,

> in Tonga specifically, and the Pacific generally, people are thought to contemporaneously walk forward into the past and walk backward into the future, both in the present…in the West, the past, present and future are lineally structured, with the future and the past placed in the front and back of the present, in a one-way, evolutionary order. (Mahina, 2010)

Indigenous temporal understanding interconnects with relationality to place and space. Nurturing these understandings can overcome some of the general theoretical divisiveness of euro-settler dominated sustainability studies.

Indigenous Gendering

The ways in which Indigenous women understand their place in the cosmologies of the Americas are profoundly tied to the time/space, material reality/spiritual reality dialogues that physicists are now engaging with. Paula Gunn Allen calls childbirth an incredible shamanistic act in itself (Allen, 1992, p. 27-28). Embedded in this understanding of how life is carried by women is the resulting or rooted idea that cycles of ancient time are given particularly strong voice by women themselves. Simpson (2006) also links the original Creation stories to Indigenous women's power in traditional societies, writing of how,

> Creation stories in several different cultures speak to the ability of Indigenous women to give new life to beings, to transform, and to vitalize. Women had important responsibilities in traditional governance based on their knowledge of birthing and mothering. Women were honoured and respected by our nations for our contributions, for our power and for our responsibilities as nourishers. (p. 27)

To enter into cycles of time in relation to place, is to enter into a whole set of responsibilities revolving around the Good Mind and the Good Life or biimaadiziwin (Simpson, 2011). This process brings us closer to an understanding of the sacredness of the whole circle of life. Katsi Cook's (2008) words resonate, reminding us that the responsibilities, voices and powers of Indigenous women are necessary to the ongoing renewal and rebirth of life itself. In this way,

> Reproductive justice and environmental justice intersect at the nexus of woman's blood and voice; at the very centrality of woman's role in the processes and patterns of continuous creation. Of the sacred things that there are to be said

> about this, woman is the first environment; she is an original instruction. (qtd. in Nelson, p. 156)

While there is power in understanding women as having practiced responsibility for political, economic and cultural matters in traditional indigenous communities as McGowan articulates (2008), "It is axiomatic that women hold the greatest power in societies where they are the economic producers exercising some control over the distribution of economic resources" (p. 57). At the same time, as Simpson (2011) points out:

> gender was conceptualized differently than the binary between male and female expressed in colonial society. For Nishinaabeg people there was fluidity around gender in terms of roles and responsibilities. Often one's name, clan affiliation, ability and individual self-determination positioned one in society more than gender, or perhaps in addition to gender. (p. 60)

While Simpson argues against essentialist understandings of how Mothering and gender infiltrate our thinking, she also identifies with the birthing traditions of her nation. This renewal of Indigenous traditions around Mothering is a reclamation after decades of forced removal of children from Indigenous families, through the Residential School and also the ongoing overrepresentation of Indigenous children in state 'care' (Trocme, Knoke & Blackstock, 2004) and is vitally important to environmental renewal and sustainable community planning initiatives. At the same time as this reclaiming occurs, it is being untangled from the heteropatriarchal indoctrination attempts by mainstream Eurocentric education and missionary systems.

Heteropatrarchy, as Smith (2010) describes it, is a building block of the imperial and colonial systems. The heterosexual, patriarchal family is a reflection of this ideological building block in large part because this is also the family model that must consume and produce in privatized settler colonial parcels of land, maintaining colonial dominance. According to Rifkin (2011) "compulsory heterosexuality can be conceptualized as an ensemble of imperatives that includes family formation, homemaking, private property holding, and the allocation of citizenship, a series of potential 'detachable parts' fused to each other through discourses of sexuality" (p. 37).

This concept of balance links also to a hierarchy of interconnected relationships, known as a Gift Economy, or giveaway-based system of livelihood (Vaughan, 2007). This is a political-economy completely and utterly devoid of any relationality to the Euro-Western colonial patriarchal consumer economy. Gendering occurs back through Deep Time memories, of ancient stories which instruct groups of people among the Haudenosaunee as to their responsibilities at different times of year (Mann, 2000, p. 110-112). This concept is , but not understood as as a dichotomousy, not as a hierarchicaly, or as a and not as a coercive set of identity politics.
Alternatively, Gendering is, furthermore, tied to astronomy/ or star reading/--or time keeping-- occurring within the cycles of the seasons (p. 110-112). As Mann (2000) convincingly argues, there is serious damage done with respect to human knowledge of the world around us, when women's stories are cut from the record.

This web-work is the backdrop, the context, and the foreground of how Indigenous environmental knowledge interconnects. winds together, as I've seen it all reflected. Of course, this is not I can't say that I've drawn the entire picture--just my own

small piece. The erasure of Indigenous women's voices from mainstream literature is not a total erasure, and reclamation work is ongoing (Allen, 2003).

Sustainable relationships with time and place are dependent on respect for all life—the antithesis of a system of colonialism and genocide. Yet ideas persist in environmental theory which, like 'the commons,' reinforce colonial systems. Concerns about population growth as a central cause for environmental catastrophe are worth discussing, as Indigenous Peoples find experience the loss of generations of children to Residential Schools, foster care, and forced sterilization (Boyer, 2006). Population control evokes the pressures exerted on Indigenous women, on mothering, and on the nurturing of future generations. There is a thread of permissibility with respect to the genocide of Indigenous Peoples in direct forms, scattered through literature which re-distributes colonial and Eurocentric myth. Deloria Jr. (2001) argues that Euro-Western dDefinitions of 'environment' and, 'ecology' echo colonial divides between 'civilization' and 'wilderness', Deloria Jr. (2001) argues, therefore damning Indigenous Peoples for whom 'untouched lands' are an impossibility (as cited in Moore, 2001). The need for interest in intersectional analysis becomes apparent after taking a closer look at the Brundtland Rreport on sustainability as well. The Brundtland Report mentions Indigenous Peoples long enough to recommend that attention be paid to food scarcity and population control of 'family planning' as cited problematically in The Brundtland Report on sustainability (World Commission on Environment and Development, 1987, p. 141-144). Population growth is blamed for ecological/human breakdown in numerous other Eurocentric sources also (Malthus, 1798; Ehrlich, 1968; Lovelock, 2006). Land and human alike have been attacked as colonization in the Americas has involved the

forced sterilizations of Indigenous women as well as the 'clearing of the land' (Andrea Smith, 2005). The underlying belief system of the colonial project remains as the major barrier as we attempt to deal with these issues. Smith (2005) writes that "Sterilization abuse, while curbed, is certainly not dead…Peru the Health Ministry recently issued a public apology for sterilizing 200, 000 indigenous people (primary Quechua and Aymara) without consent during the presidency of Alberto Fujimori" (p. 85).

Dichotomous understandings of gendering are not inherent to Indigenous societies, and so the cautions of some ecofeminist thinkers do not apply. Carlassare (1994) elaborates, "Many critics within ecofeminism align themselves with the constructionist position of social or socialist ecofeminism, and dismiss cultural ecofeminism for being 'essentialist'. . .Essentialism usually refers to the assumption that a subject (for example, a 'woman') is constituted by presocial, innate, unchanging qualities" (qtd. in Merchant Ed., 1994, p. 226). For Indigenous Peoples, infusing meaning in contemporary discussion about sustainable planning, requires an understanding of how women uniquely contribute to family and community, and how these contributions are intertwined with a spiritual foundation. As, as Deloria Jr. (2006) writes that in Indigenous cosmologies, all of life has:

> its own particular body form, a unique set of talents peculiar to its kind, and the intelligence to make decisions. . .The task of each individual of that kind was to fulfill, as much as possible, its inherent possibilities through physical real-life experiences. . .This belief in the orderliness of things, regardless of the apparent chaos, represents the spiritual side of life--how spirit manifests itself in the physical world. (p. xxix)

The place of spirit in life, the cyclical nature of time, and the rootedness of the generations in original territories.

Undoing settler colonialism involves an in-depth analysis of the impacts of colonization on Indigenous women as holders and caretakers of land (Mann, 2000; Kuokkanen, 2011). In vital work on the renewal of treaty relations, Hill (2008) reminds the reader that under Haudenosaunee law, women are primary holders of land (as cited in Simpson, 2008). Wwhile Mann (2000) discusses the importance of Haudenosaunee women's responsibilities for the economic output of large gardens—ensuring that equal sharing of foods, for example. And just as the project of colonization requires the is undoing of ,—this overt and covert attack on Indigenous women, on Indigenous governance systems as egalitarian and women leadsystems, the undoing of a destructive and oppressive systems means reinstating those egalitarian norms. Sustainable community planning, therefore, requires not only attentiveness to environmental healing, but also to the anti-violence initiatives that concern Indigenous families and communities. Bella Laboucan-McLean, a Cree woman whose untimely and suspicious death sparked renewed efforts to address the crisis of violence against Indigenous women, inform the interconnections I've outlined. Klein (2014) offers this reflection, linking environmental destruction, Indigenous independence and the particular targeting of Indigenous women by a dominant colonial system:

> The greatest barrier to our government's single-minded obsession with drilling, mining and fracking the hell out of this country is the fact that indigenous communities from coast to coast are exercising their inherent and constitutional rights to say no. Indigenous strength and power is a tremendous threat to that

> insatiable vision. And indigenous women are, to borrow Vaughan's phrase, "the heart and soul" of these movements. (p. 1)

Re-evaluating timelines of environmental and social justice movements means understanding that the struggle for sustainability to provide for future generations, began with the incursions of colonization. Further, in order to address ongoing needs, intersecting colonial oppressions needs to be understood. Bruce Johansen and Donald Grinde (1995) argue that environmental consciousness itself is not new to the Kanienkeheka of Akwesasne, writing that:

> As early as 1834, their chiefs told Canadian officials that control structures built to channel the flow of the Saint Lawrence River near Barnhart Island were destroying important fish spawning grounds. . .environmental degradation at Akwesasne took a quantum leap after the late 1950s when the Saint Lawrence Seaway opened up bountiful, cheap power. (p. 173)

The work of midwife Katsi Cook (2003) has served to remind everyone of the interconnections inherent within Indigenous communities. Katsi Cook's work has also highlightesed the gendered elements of toxification. When samples of breast milk among mothers in Akwesasne showed high levels of PCBs, and community members were forced to switch to cheap and unhealthy foods, the linked strategies of destroying an economy, destroying an ecosystem, and destroying a nation, informed a sustainability movement which continues to seek justice and renewal on many levels.

The need for return--of Indigenous Peoples to homelands, of homelands to Indigenous Peoples--is advocated for by Jensen and McBay (2009). Jensen and McBay (2009), the same environmental activists who argue that sustainability maintains the

status quo, remind us that the resources currently depended upon for industrial society's workings, are already diminishing (p. 296) and that it must be kept in mind that Indigenous sustainable practices "requires a healthy landbase" (p. 354). Becoming allies and friends in the struggle for Indigenous land rights and land protection will become a more pressing need, not less, as challenges multiply. The need for return--of Indigenous Peoples to homelands, of homelands to Indigenous Peoples--is advocated for by at least one set of environmental thinkers. Questions about appropriate forms of technology can better be informed also by a decolonizing perspective. Jensen and McBay, the same environmental activists who argue that sustainability maintains the status quo, remind us that the resources currently depended upon for industrial society's workings, are already diminishing (p. 296) and that it must be kept in mind that Indigenous sustainable practices "requires a healthy landbase" (p. 354). Becoming allies and friends in the struggle for Indigenous land rights and land protection will become a more pressing need, not less, as challenges multiply. This is not a romantic notion (and therefore easily dismissed) but one born of pragmatic experience already articulated by enough people on both sides of the Two-Row Wampum, to warrant further attention, funding and support. The new challenges presented by nanotechnology through which matter is manipulated on a subatomic level, already presupposes old information to be true--that 'matter' is inert, lifeless, and "dumb" (Rucker as cited in Jensen & McBay, 2009, p. 355).

An example of these tensions arises when Indigenous knowledge/s are borrowed in order to bolster Euro-Western environmental theorizing, without paying heed to the priorities and worldview of Indigenous community. Abram's work (1996) sourced from

an admirable number of Indigenous theorists, credits European theorists with the cutting edges of language analyses in relation to ecological knowledge takes seriously the great colonial myth--the Bering Strait. Brundige and Rabb (1997) take on Abram's treatment of Indigenous cultures in his work on human relationships with the natural world:

> The fact that Abram regards 'the pinnacle of human development' achieved by the West as environmentally destructive and in need of fundamental rethinking makes his argument no less offensive. In looking for similarities instead of exploring differences he misses the point. He. . .runs the risk of appropriating the Native cultures for his own purposes, ironically, to save the very land which Euro-Americans have already appropriated. (p. 35)

The Bering Strait is a rescue of Eurocentric spatiality (erasing relationship to space by removing Indigenous Peoples both figuratively and literally), temporality (promoting a linear, development timeline of history) and ultimately therefore the colonial project.

The rescue of the colonial project and self-preservation for settler society, is far too prevalent in environmental thought. Torgerson (1999) argues that environmentalists want to defend something which is defined in shaky terms at best. 'Nature' in his assessment necessitates a more open gaze toward what he calls a 'Cultural Mirror' of Indigenous knowledge while asking the "question of how those coming from a modern cultural world are to communicate with cultures that are radically different in their presuppositions and dispositions" (p. 192). Torgerson finishes by adding that,

> Even a sympathetic and sensitive inquiry into indigenous images of place runs the risk. . .of intruding into a world that can be sustained only by being left

> alone. . .Too much of indigenous cultural meanings often seem lost in translation to the presuppositions of the modern cultural world. (p. 200)

Indigenous environmental knowledge is rooted in kinship, rather than biocentric or anthropocentric frames of reference (Nelson, 2008). In other words, the misapprehension of Indigenous Knowledge, rooted in Eurocentric categorizations and paradigms, maintain environmental thought within limits. Hartmann (2010) describes, environmental rhetoric is being used to justify overt racism as the 'greening of hate' manifests in population debates. Hartmann tells the story of one interaction at an environmental law conference:

> Although the topic was population, I quickly realized I was not debating a fellow environmentalist or family planning advocate, but rather an anti-immigrant activist for whom population and carrying capacity were euphemisms for circling our wagons and closing our borders. (p. 1)

In their critical work on the need for a much more thorough anti-colonial approach, they critique the persistent fantasies that would see settler society replace Indigenous Peoples as those who primarily "love" and belong to the land. Their work is critical of eco-activists who seek belonging while lamenting a "vanishing people" (Tuck & Yang, 2012, p. 16). The authors continue to analyze the problem of "settler nativism" which they describe as,

> narratives in the settler colonial imagination in which the Native (understanding that he is becoming extinct) hands over his land, his claim to the land, his very Indian-ness to the settler for safe-keeping. This is a fantasy that is invested in a

> settler futurity and dependent on the foreclosure of an Indigenous futurity. (p. 14)

The radical potential of sustainability discourses is easily rerouted toward the rescue of consumptive economies (Rist, 1997), which signals deeper issues of worldview and belonging. Thus, the words of Blaut (1999) citing "the long-standing and happy marriage between environmentalism and Eurocentrism" (p. 391) signal a problem of both perception and intent. With some exceptions, Nadasdy (2003) finds a pattern of Euro-Western misapprehension of Indigenous Knowledge in relation to environmental issues:

> While many scholars (e.g., Berkes 1987, 1999: 151– 53; Harries-Jones 1993: 49; Krech 1999: 212–13; White 1985) have acknowledged the culturally contingent nature of concepts like conservation, most nevertheless continue to use them as yardsticks against which to judge indigenous peoples' beliefs and practices in the ongoing debate over eco- logical nobility (i.e., either Indian people are acting as conservationists or they are not). (p. 294)

Indigenous Knowledge, subjected to Euro-Western measurement and paradigms, is necessarily decentered in order to maintain the colonial project.

The need for alliance building between Indigenous and non-Indigenous activists remains clear, as Euro-Western knowledge stays mired in dominant discourses emphasizing separation, materialism and linearity (Clark, 2002, p. 39). However, it should be made clear that centering Indigenous paradigms and priorities on Turtle Island will make these alliances possible. For example, Gaard (2001) in attempting to unravel Indigenous dissent about the Makah whale hunt, does not actually validate a

Makah Knowledge framework. While freely admitting that such a framework would give ample room for dissenting voices within the community (p. 20) confusion reigns as to whether the silencing of those voices is the fault of a 'traditional' perspective. In other words, the work treads dangerously close to blaming 'traditionalism' for the ways in which colonization has treated Indigenous traditions as static rather than dynamic. External, Eurocentric definitions of 'traditional' knowledge might take for granted a static framework, but internal, Indigenous definitions might not.

Chapter 5

Gifting, Gardening and Collaborations Toward Sustainable Livelihoods

Knowledge Gardening is an application that adds to both theory and practice in re-centering Indigenous Ecological Knowledge in environmental research and education, as well as re-centering Indigenous women and Indigenous gendering in the project as a whole. Expanding on the concept of knowledge gardening makes room for exploring the ways that Indigenous women's voicing, storying and embodiment of knowledge, is expressed in gardens both metaphorical and actual, that engage our connections to Mother Earth, the first garden of Sky Woman and her daughter, First Woman. These expansions and connections are especially profound at a time when Indigenous women are articulating and seeking redress and healing from the immense violence of the colonial system.

Indigenous women's gardens revitalize Indigenous women's relationships to one another. Just as my mother's garden provided a conduit of dialogue and relationship through our family's struggles with the effects of colonial trauma, renewing our understanding of the original garden on the back of Turtle Island profoundly enhances the healing of our traumatized society. In Mann's words,

> Sky Woman was the First Woman, the First Mother, and the First Grandmother on Earth. Despite what Euro-Western textbooks affirm, her ways of seeing, thinking, knowing, and doing never actually disappeared. They just went deeply underground when the Water Beings—Europeans—arrived to impose their colonial world order on Turtle Island (p.3).

Re-centering those relationships, between mothers and daughters, Mother Earth and Indigenous women, is therefore vital to undoing the violence of colonialism. Without this gendered analysis, the gendering of Eurocentric heterosexist patriarchy flourishes, along with its inherently anti-environmental conceits.

This is a perspective that enhances our potential to revitalize Indigenous futurities rooted in ancient knowledge. Place is embedded in time communication with place is richer when the people most intimately connected to and born of those places are given the time needed to renew relationships. Indigenous futures cannot be traded for European ones if Mother Earth is going to be nourished in what Kimmerer (2013) speaks of in terms of giveaway and gratitude—human beings giving back to a mother who has given everything to us. In her words, "Children hearing the Skywoman story from birth know in their bones the responsibility that flows between humans and the earth" (p.5).

This is a project that seeks to profoundly transform the heterosexist and patriarchal roots of the colonial project. Indigenous feminism refuses to give up land, belonging, or identity. Feminism, first influenced by Indigenous women in the Americas, particularly the Haudenosaunee (Mann, 2000) can be reclaimed from within an Indigenous worldview. In addition to this argument, Indigenous scholars like Christine Waasey aa 'sin Sy (2014) write to reinvigorate non-hierarchical, gender egalitarian, and relationships rooted in Indigenous culture and practices—such as the loving labour of maple tapping. Further, Indigenous feminism brings to light and critiques spatial and temporal violence against Indigenous women and land, perpetuated and institutionalized by the Canadian nation-state.

As of 2017, when this writing was completed, Indigenous women's organizations and other Indigenous groups have been successful in pressuring the Canadian federal government to commit to an Inquiry into Missing and Murdered Indigenous Women (CBC, 2015). The Inquiry, at every stage, brings up new (or old) questions and concerns about intersectionality—the inclusiveness of Two-Spirit Indigenous people, of Indigenous women whose biological families have been lost to them because of stigma around sex work or outright sex trafficking, and of a whole treatment of the strengths of Indigenous women in their communities, nations and confederacies. As the holders of land and culture, Indigenous women can and are still revitalizing their relationships to whole territories. An Indigenous feminist project creates resources, space and time for these initiatives, inclusive of the gardens, maple taps, and many other activities, cannot be reduced to mere 'economies' but can be reclaimed in that and a broader context, as returning to original land protection, caring for land (and water) and other aspects of responsibility and governance.

Very broadly, this return can be understood as knowledge gardening. Outlines an Indigenous rooted concept of reciprocity, as something bigger than human need, as evoking total belonging to the totality of life. When Robin Kimmerer (2013) asks what Earth asks of human beings, she adds that the question itself is nurturing, connecting, participatory. Kimmerer evokes 'Sky Woman's gardens' (p. 6) to vision a way forward, rooted in Sky Woman's origin story, in order to reconnect human minds and bodies to whole ecosystems.

Knowledge gardening, rooted in reciprocity, in evocation of our original responsibilities, of the original storying of Indigenous women at the center of

Indigenous communities, links us then to the project of Indigenous feminism. Indigenous feminism is about nurturing life and women's life-giving Mothering, and the nurturing of human as well as more-than-human life. Mothering, according to Anderson (2010) is a source of Indigenous women's "authority in the family and in the governance of our pre-colonial nations" (p. 86). Indigenous feminism is a reminder of giveaway, thanksgiving, reciprocity, and relationship. Indigenous feminism is also a necessary reminder of the new challenges facing Indigenous women and Two-Spirit people, as a result of the violence of heteropatriarchal colonialism.

Sustainable community planning must take into account environmental and human needs. For example, in communities where transportation infrastructure is a concern, Indigenous women and youth are often left with little choices around movement and become even more vulnerable to colonial violence. The cases of missing and murdered Indigenous women who were forced to hitchhike from their communities into urban centers, tell us that sustainability in community planning is going to have to be rooted in the needs of the people who are most vulnerable to the destructive tendencies of a (currently) dominant system. This is also a project of changing that system so that what is prevalent is an equitable way of living and caring for life in a whole ecosystem. Environmental, cultural and gender-based analysis could create both harm reduction analysis and overall change in a colonial system.

Unsettling settler colonialism provides maybe new opportunities for coalition building. As Walia (2012) argues, making links between social movements and Indigenous self-determination struggles remains important as 'practice' and that a "growing number of social movements are recognizing that Indigenous self-

determination must become the foundation for all our broader social justice mobilizing" (para. 3). Linking environmental sustainability and the renewal of Indigenous self-determination becomes a continuation of treaty relationships which "are premised on revolutionary notions of respectful coexistence and stewardship of the land, which goes far beyond any Euro-Western liberal democratic ideal" (p. 51). Idle No More and Truth and Reconciliation signal cause for hope that working across difference is possible as well as mutually beneficial.

Situating self through sharing stories about the work of re-searching culture and identity, sustainability and responsibility, is becoming a clearer process. Storying is a term used by Fitznor (2012) toward a process of re-storying culture. So the work in process and renewal might still mean a gentleness when dealing with each other's differences, and reflexivity about the ideas and people that the colonial project has particularly impacted. Gardening knowledge evokes the interconnections of knowledge systems that move deeper than movements toward interdisciplinarity and transdisciplinarity in academia (Kuokkanen, 2007). On one hand, the garden evokes interrelationality (Bartlett, 2012) requiring a multiplicity of voices included in diversified discussion on pressing issues and on the other hand, new/old ways of knowing, including storytelling (Fitznor, 2012), gifting and ceremony (Wilson, 2008). Centering culture, or an Indigenous worldview, in health and community planning is becoming a more widely accepted approach (Dell et al., 2011). The Public Health Agency of Canada has worked toward promoting best practices in health and community planning, inclusive of food security, physical activity, and many other explorations of the impacts of the built environment on individual wellbeing (Health Canada, 2002).

Referring the health and planning as an emergent and evolving set of possibilities, this shift opens possibility for new forms of transdisciplinary and interdisciplinary explorations of the links between health and planning in Indigenous communities which have now been expanded on. One example of such an expansion and extension is in the now defunded National Aboriginal Health Organization's work on Two Spirit people and overlapping struggles for home and for health (NAHO, 2012).

Some attention has been paid to the ways that gardens operate to alter or 'civilize' nature, through symbols of 'dominion' but more discussion is needed about the ways that Indigenous agricultural and environmental practices work with diverse ecological to nourish sustainability. Work in this area, inclusive of Haudenosaunee gardening (Mann, 2000) could nurture a whole interconnected project of education and research into sustainability practices, food security, health and planning, based on existing projects like S.H.A.R.E. and the work of the Kahnawake Environment Protection, which map the continuities between human and natural spaces. My central finding has been also my central limitation—that language is so fundamental to understanding, in planning, in health, in the nexus of the two streams I'm working in at the community level, that I have to return to the core of what it means to learn within an Indigenous worldview. At the same time, I practiced an embodied and experiential form of learning, through gardening my questions and my ideas and then returning to the soil when things didn't make sense. The work of confronting the colonial project is painful. Gardening was my way of working through the muck, as the first Elder who ever put me out on a fast told me, 'it takes a lot of stuff to make a garden'. Simpson (2011) writes about confronting the shame that colonialism has implanted in our psyches. As a youth,

I did wonder how it was that such a fierce people—my mother's family—could 'lose' everything. But my struggles have seemed much, much pettier at times. With residual and intergenerational trauma comes grief, and with grief can come the jealousies, anxieties, strictness, staunchness, and fear that then colors renewal and revitalization. I won't preach gentleness because I've not always been good at it.

This chapter explains the how and the why of focusing on gardening as a method of research into Indigenous conceptualizations of environmental sustainability. I recently wrote a reflective piece for a book about the era of the Anthropocene (reference your piece here if published). I focused on My Mother's garden, as a way of linking the gardens I tend back to family and community, so that it was not about a solitary existence in a garden of corn, beans, squash, potatoes, tobacco and perennials friendly to bee and monarch butterfly relations. I wanted to turn the 'era' on its head, first and foremost, to situate colonialism as the era within which we must undo systems of power that keep both Indigenous peoples and Indigenous lands marginalized in voice and life. I also wrote about the ways that our stories as Indigenous peoples—stories that contain instructions and understanding about our youthfulness in relation to the rest of Creation—as incongruent with the problem of anthropocentricity. Such incongruence is also apparent when gendered analysis is applied to the question of sustainability. I gardened my dissertation, in words, and also in the gardens I helped to cultivate and received gifts from. This work is a work of resistance against the state. My mother's death was not, in fact, a natural death at the end of her life. She passed away from complications from COPD but also from an infection that was the direct result of—and was not treated properly by—a colonial medical system. Indigenous people are facing

health impacts because of the colonial system, that should be understood within that context.

In this chapter, I also want to talk more about the health and community development work that I've done with respect to *Honouring Our Strengths*, a national Indigenous addictions and culture research project, and the Seven Directions Education Center, which I co-direct. What frames and feeds this work is the gardening of knowledge, led by Indigenous scholars, Elders and Knowledge Keepers who are our truest source on the realities of Indigenous land based knowing. In order to better and more sustainably plan, take care of each other, and live well together, the renewal of the gardens and Indigenous economies, as well as the work of culture based healing and learning, can be enhanced in coming years. From where I am positioned in the world, I can see ways that gendering Indigenous planning will also enhance a more rooted and much older understanding of what an Indigenous worldview can contribute. My own positionality as a mixed, queer, Indigenous woman, makes the gardening of knowledge an experiential and embodied experiment in learning and sharing information (or undoing when needed).

Missionaries sought to create new cultural notions of Indigenous women who would be "chaste, submissive to their husbands, absent from public assemblies, quiet in places of worship, hopeless at finances, beguiled by puffery, and concerned only with the domestic sphere" (Mann, 2000). Exclusions experienced by Indigenous women who have often had to leave reserves as a result of marital breakdown because of patriarchal Indian Act property provisions (Abbott, 2003) or Two-Spirit people because of missionary interferences can be re-framed as an issue of landlessness in one sense and

misinterpretation of land based boundaries on another level. A Two-Spirit Indigenous gendered lens is about looking at the ways that environmental/human relationships are impacted by heteropatriarchal colonialism, while also finding new ways of storying our inherent interconnections, our rootedness in Creation, and the need to center Indigenous Peoples—all members of each community—in environmental thought. Sustainable growth, limitations on growth, and other concerns that are part of the conversation, can be given new layers and grow new insights into interrelated and underlying concepts of time, space, and use seen in terms of relationship, gifting and thanksgiving. In this chapter I want to explore the gardens of Indigenous communities as an example of this expanded meaning.

Mann (2000) makes a similar point about the imposition of the heteronuclear family model that not only forced Haudenosaunee communities into closer confines, but drastically redefined family away from the Creation story that saw non-gender binary and non-heteronormative relationships as central, that is Mother/Daughter (Sky Woman and First Woman) and sibling relationships. Finally, another garden has emerged in the work of my extended friends and family, through a collective and non-profit called the Seven Directions education center, which I co-direct with two other members. We planted two acres of diverse foods and medicines in the Summer of 2013 but we spent many more years planning the gardens in years previous, through sharing circles, consultation with Elders and broader community discussion in the Bancroft and Peterborough, Ontario areas. Gardening knowledge started with the small gardens in my backyard and in my mother's, and grew into acres I share now with other Indigenous learners. In many ways, my partner, my friends and I, are re-visioning our lives

according to Indigenous family models, ensuring that aunties, uncles, queer family members, non-biological as well as biological family, grandparents and other relatives help with parenting as an act of cultural renewal. Simpson (2011) has written about this work, of living our knowledge. These concepts connect well with the gift economy, drawing out and learning to understand work from within an Indigenous worldview (Dumont, 2005). In addition to gardening knowledge, I also experienced ceremony (fasting, sweat lodge participation, naming) as an answer to questions I first had about sustainability and its meanings.

It is important to understand gendered oppression within the colonial project in part because the system demands adherence along these lines of oppression. Protecting or sustaining the gifts of Creation mean strengthening the whole of Indigenous families, communities, nations and confederacies. Goals defined in terms of nation-state economic stability or growth (Alfred, 1999) are entangled in ongoing colonial relations and so terms of discussion shift automatically when an Indigenous worldview is centered because this worldview is inherently democratic (in terms of discussion, ongoing negotiation of understanding) and rooted in egalitarian relationships and not in the kind of dogmatic divisiveness that the Residential Schools encouraged (Simpson, 2013) or that missionaries encouraged as a remaking of traditional roles.

The commodification of land or 'resources' is surely a root cause if not also an effect of colonizing systems. Spanish conquistadors annihilated Indigenous families and communities for the sake of the gold which they waved about "as if they were monkeys, with expressions of joy, as if it put new life into them and lit up their hearts" (Nahuatl qtd. in Galeano, 1997, p. 19). In the wake of successive waves of colonial incursion, a

small garden project is a microcosm of resistance and renewal, in the face of seemingly insurmountable factors. The garden I grew is a beginning point for research, for re-searching an understanding of sustainability from an Indigenous, gendered perspective, with the corn, beans, squash, tobacco and potato that Haudenosaunee knowledge keepers retell as the foods/medicines of original Creation. I am proposing that the garden is a space of more expansive engagement with Indigenous Knowledge, because the gardens I've taken part in cultivating have included family, community and nation building work, from the saving of seeds to the growing and sharing of traditional foods.

Linking issues of diversity to health, community development, and environmental sustainability overall, means including and strengthening the work of all Indigenous Peoples for whom land and liberty are intrinsically rooted in Creation. We're currently working toward a project proposal for an initiative that will allow us to create culturally based shelter and housing projects that are also environmentally sustainable. For example, we are proposing energy sustainability through solar power and mixed systems, so that organizations might decrease overhead cost after initial investment partnerships. My aim in writing that literature review, was to address marginalization of Indigenous women, youth, Two-Spirit people, those experiencing difficulties with poverty and homelessness, and to address shelter and service needs. A Two-Spirit , female, Indigenous aesthetic of sustainability and thanksgiving, would look at the ways that environmental and human marginalization can be rectified culturally with the inclusion of all members of the community.

Inclusivity and sustainability weave together as the whole family and community come together in name and clan and the inherent responsibilities to Creation that go

with identity and unity. Nason (2013) speaks to the power of interconnection, arguing that Indigenous women's voices have to be much more deeply respected, as colonial thought has undermined this respect. When exclusion happens—as the divide and conquer strategizing of colonial entities would permit—those responsibilities and acts of caring are pressured. A gendered and Two-Spirit analysis of colonization and the call for sustainable community and environmental renewal, also reveals connections that might otherwise go unchecked. For example, Shepard's (1992) analysis of the roots of environmental/human malformed relationality, as a frontier myth of Adam and Eve's 'sanitizing' of the land and reforming of Eden, is entangled with the heteronormativity and patriarchal hierarchies of the colonial state.

This notion of inclusivity is about putting family and community back together again. For many people who experience discrimination along the lines of gender and sexuality, the strategy of divide and conquer, explained here by Corntassel (2010) is important to deconstruct:

> The nation-state of Canada offers a very different version of history than those of Indigenous nations—one that glosses over the colonial legacies of removing Indigenous peoples from their families and home- lands when enforcing assimilationist policies, all of which were intended to eradicate Indigenous nations. (138)

Indigenous women and Two-Spirit voices were brutally attacked by Residential Schooling and by the larger project of heteropatriarchal-family restructuring. Mann (2000) writes about the ways that Haudenosaunee extended and longhouse families were restructured forcibly and coercively by Quaker missionaries in New York, no doubt

as an act of dogmatism but also as a project of land expropriation. “Although from the Quaker point of view, the Society’s whole ‘friendly’ endeavor among the Haudenosaunee was a dismal, expensive failure,” Mann tells us,

> the fact is that the Quakers did not leave before they had done great cultural damage to the gantowisas. Sexism had guided every step they had taken, from the attempt to imprison women in their ‘proper’ domestic sphere to their demotion of women from their traditional economic, political, and religious duties. (p. 154)

This re-structuring of the family, to conform to hetero-nuclear ideals, was actually an all-out attack on the extended and clan based governance system and had far-reaching implications for land management and community planning in the years to come.

What I’ve learned about putting family and fractured community ‘together again’ is about inclusivity and therefore non-heteronormativity and respectful of women’s leadership as well (Nason, 2013). Older structures, pre-colonial and in ongoing community models—of Haudenosaunee family was/is about extended family, not a kind of heteronormative ‘Father Knows Best’ system (Mann, 2000). Rifkin (2011) further explores the significance of Eurocentric rhetoric that the hetero-nuclear family is a pillar of ‘civilization’ itself, othering family structures that work to essentially threaten or degrade the ‘civilized’ norm (p. 5).

The results of these ideological incursions are examined as having core effects on the overall understanding of what it means to live within an Indigenous society, an Indigenous worldview, and a culturally rooted reality. At the same time, researchers have examined these impacts on Indigenous people and families, as a target of colonial

dogmatism around gender, sexuality and personal freedom. It is certainly well accepted by now that the Residential School and Sixties Scoop, did nearly immeasurable damage to Indigenous individuals and families (Dell et al., 2011). The system of colonization is about erasure of Indigenous Peoples (Smith, 1999). Two-Spirit theorists emphasize the importance of traditional knowledge and the roles/responsibilities of Two-Spirited people within community, while also highlighting the gender fluid/flexible understandings of Indigenous worldviews. Violence can disembody people from their livelihood, support systems, families, communities and nations, interfering with the growth of knowledge and action that creates a healthy people in healthy environments. Indigenous women left landless by Indian Act discrimination might be caught up in mainstream service provision, in urban centers, and reframed according to mainstream poverty reduction programming (labeled along with other members of a homeless population) when voicing their experiences as key contributing members of their communities could strengthen overall understanding to a much greater degree. Friendship Center movements over the decades have sought this reframing, ensuring that the crisis of homelessness and landlessness are understood in appropriate context from an Indigenous worldview, while also ensuring that a strengths based approach is emphasized.

An emphasis on the rights of all Indigenous children to culture, to life, and to their family and community connections, is part of an Indigenous feminist and decolonizing perspective. This work includes addressing the destruction of Indigenous unity through encountering the state and its overwhelming program of removal, parting Indigenous children from their mothers at shocking rates (Blackstock, 2007). By mal-

forming ideas about the appropriate family structure, Indigenous communities were both inundated with foreign values and ideals, and denied the right to raise healthy children, thereby threatening subsequent generations with erasure and pressuring a fabric of responsible and interconnected people whose spiritual, physical and intellectual work includes, centrally, environmental renewal and protection. A key and recent example of this renewal are the resistance efforts of Elsipogtog against fracking in their territory (Simpson, 2013). At the same time, Indigenous communities across the country are demanding a movement which seeks to address the shocking numbers of Indigenous women who have gone missing or been subject to violent deaths across the country (Hunt, 2014). These are some of the key intersections being raised by Indigenous communities, that are both environmental and gendered in nature and that will inform new approaches to sustainability work in urban, rural and reserve planning.

The garden is the garden that I physically grew in my mother's home while she was alive, and after her passing, where traditional tobacco, corn, beans and squash grew together with local flowers and particularly flowers that would work well for bee and monarch butterfly populations. The garden has expanded philosophically and geo-politically, into two acres nurtured by a collective of Indigenous Youth (we began as Youth that is) and continued as a space for cultural sharing, including a hide-tanning workshop in partnership with Metis and First Nation members in the local area. The garden as a physical space, has roots not in the English-defined 'taming of wilderness' but in the food, plant, medicine work that has always worked in Indigenous communities across Turtle Island—be it the work of gardening the Three Sisters in fields of soil, or nurturing areas where sacred foods grow beside the oceans or deep in forests.

Breaking the colonial divide between the garden and the wilderness is conceptual work that Indigenous scholars are doing for the sake of ensuring that Indigenous understandings of identity in relation with environment are continually nourished.

Gardening my dissertation allowed me to situate myself in the work of 'learning to learn' from within an Indigenous worldview. Situating myself meant encountering the traumas and stressors of colonization both externally and internally. It should be well accepted by now, that the Residential School and Sixties Scoop, did nearly immeasurable damage to Indigenous individuals and families (Dell et al., 2011). The imposition of gendered hierarchies means understanding trauma informed approaches to community planning from the unique vantage points of Indigenous women and Two Spirit people who experience violence, suicide, and addiction (all of which have touched me and my family) at alarming rates (Ristock, 2010). The focus of this paper is also on a strengths based perspective—seeing the nuances and layers that are uncovered when our gifts and responsibilities are honoured and centered.

For example, in recent work in homelessness research, I sought to understand the connections between gendered and colonial oppression and the health and housing challenges facing Indigenous women and Two Spirit people, while also looking at the ways that culture could address these challenges. After researching in areas inclusive of health, housing, addiction and culture, I can see the clear benefit that centering Indigenous language projects would bring. Strengthening language strengthens relationship and responsibility with family, community, nation and land, and ensures deeper connections to identity and to wellbeing overall (Dell et al., 2011).

Making spaces for the renewal of these deeper knowledge systems means honouring Indigenous Knowledge overall. The decolonization of Queer/LGBT spaces in turn is also something that Indigenous thinkers can contribute to by directly contributing to land based learning and reclamation by and for Indigenous Peoples. Speaking to the uses of Indigenous gendered traditions as tools for non-Indigenous peoples who seek to find their own diversification, Rifkin (2011) writes that "If the Senecas are seen as serving a pedagogical function for settlers, teaching them about accepting queerness, is there still a concern for the violation of treaties in the construction of the Kinzua Dam and the extension of state jurisdiction over Haudenosaunee peoples?" (p. 274). Indigenous-feminist and Two-Spirit theorists are a burgeoning re-minder of the rootedness of gender in a colonizing and deliberate environmentally destruction. How this body of new/old, interconnected set of theories and embedded understandings will grow, will be an important question moving forward.

I've been a researcher and learner on the national Indigenous mental health and addictions project entitled, *Honouring Our Strengths*, *Culture as Intervention in Addictions Treatment*, for two years. This project was first mandated by First Nations treatment center specialists across the country, in *Honouring Our Strengths: A Renewed Framework to Address Substance Use Issues among First Nations in Canada*. It has been particularly interesting to explore knowledge gardening as an idea on a project whose primary investigators (Dr. Colleen Dell and Carol Hopkins) have been incredibly effective at combining capacity building, elements of community planning (chosen and expressed by communities themselves) for treatment centers, and

their communities with culturally rooted health research. As a junior researcher and extremely young learner in comparison with our project Elder, Jim Dumont, I was given the opportunity to travel with him to 12 First Nations treatment centers in order to better understand what culturally rooted healing looks like.

Speaking very generally about this research, on the eve of final product and findings being released to the public, the main lesson that I'll take away from this research project, is that it is entirely possible and indeed necessary to actively center research questions within an Indigenous worldview at every stage of knowledge transmission and translation. Two-Eyed Seeing ensures that Indigenous Knowledge remains protected, while the applications of that knowledge are made with and by Indigenous Knowledge Keepers and Elders. The capacity building implications of this approach mean that future environmental sustainability research—inclusive of a host of social justice, community planning, social work, and health issues facing Indigenous Peoples and other marginalized communities—can actively build space for economic and knowledge based growth. Addressing food security, or sustainable housing development, just as examples, could be committed to in real time, as environmental theorists become more embedded in social, health and scientific research. This work is indeed that which my seedling non-profit, Seven Directions, is aiming for, and I can see networks of this kind of growth in the near future. The best example that I've seen of this kind of interconnected project growth, is in the Kanata Healthy House project of the Kahnawake Environment Protection Office.

Better understanding and teaching Indigenous concepts requires support for language and cultural experts for both accuracy and capacity building, or proper

support, for those who actualize and enhance the worldview. People I've worked with, including Elder Jim Dumont and Knowledge Keepers like Carol Hopkins, Mary Deleary, and Virgil Tobias, are among those whose core teachings form an authentic base of information development (see for example Ross, 2014). Indigenous teachers across Turtle Island should be supported in the project of sustainable environmental education, as well as ensuring that related issues have an environmental and Indigenous lens. For example, Indigenous language development should become a part of emergent education and is being nurtured in this way in Indigenous circles already. Learning about mental health frameworks and healing processes that are grounded in culture has proven once again that an environmental and relational lens highlights the importance of Indigenous movements toward healing and renewal, while reminding readers that the health and stability of human communities is intertwined with the health of more-than-human communities (Koptie, 2010).

Temporal and spatial belonging requires a re-centering of an Indigenous worldview, in all of the complexity that cultural difference and ongoing discussion attends to, as well as a concerted anti-colonial analysis that would illuminate the deepest workings of that system and include the voices of marginalized Indigenous people. Addiction and mental health affect Indigenous women and Two-Spirit people in different and intense ways, because of increased violence in their/our lives as well (Million, 2013). However, the Honouring Our Strengths project, in moving ahead with an Indigenous-strengths based approach, moves beyond seeing Indigenous women and Two-Spirit people only as victims of the colonial gender hierarchy, a strengths-based perspective would enhance our work beyond the various economies or industrial-

complexes that are dependent on continued oppression. Million (2013) argues that Indigenous Peoples' traumas, resulting from colonization, are being appropriated and turned into neo-liberal economic gain. In contrast, Indigenous community based healing initiatives are rooted in culture, worldview, and the renewal of Indigenous independence (Dell et al., 2013).

My work with *Honouring Our Strengths (HOS)* was enlightening; we utilized Two-Eyed Seeing as a research method and centered an Indigenous worldview in the culturally based addictions treatment research. For the HOS project, knowledge gardening has been a key concept and with it, so too has the idea of the gift economy—namely through relationship building and capacity building that challenges the imbalances of colonial hierarches of research (Smith, 1999). Knowledge gardening, for the scholars at the Institute for Integrative Science and Health, is an activity with multiple actions and a recognition of differing needs at different times, whether the activity is about tilling soil to welcome a knowledge sharing environment, or planting seeds for later activities (Bartlett et al., 2012).

Seven Directions Education Centre.

In the Seven Directions collective, we explore the garden as a space of embodiment in sustainability and environmental education. Indigenous Youth learn experientially on a physical, mental, emotional and spiritual level. Before our planting began, in the Summer of 2013, we smudged and offered tobacco in thanks for the earth, the water, and all of the seeds we were working with. The garden became a place where we could learn and teach about sustainable food production, medicine gathering and seed saving. Potential for community connections and future projects is growing in our

work as a collective, inclusive of seed saving, water conservation, sustainable hunting and harvesting practices, and sustainable agriculture. Some of our work is youth focused, and youth are an integral part of upcoming cultural projects. An emphasis on the rights of all Indigenous children to culture, to life, and to their family and community connections, is part of an Indigenous feminist and decolonizing perspective. This work includes addressing the destruction of Indigenous unity through encountering the state and its overwhelming program of removal, parting Indigenous children from their mothers at shocking rates (Blackstock, 2007). Youth have been a part of hide tanning, learning about the hunting traditions of the woods that are at the edge of the gardens we've cultivated. Youth have helped with planting, harvesting, and learning about the gifts/uses of herbs and foods.

The Seven Directions Garden is, in many ways, about embodying the pedagogies of sustainability in emergent learning practices. Human beings embody knowing and learning in the more-than-human environment, and that physical experiential ongoing existence is also a multi-dimensional, connecting mind/intellectual, body/physical, heart/emotional, spirit/spiritual layers of individual existence. However, this cultural understanding is best articulated or reframed, there is a tremendous opportunity for Indigenous community based scholarship and research. Relationality can be undone by oppressive structures, but putting the pieces back together is key to recovery as both individuals and communities face the struggles of contemporary colonialism. Culture is important to health and wellbeing for Indigenous Peoples and the impact of this understanding is being explored in Indigenous communities across Turtle Island (Dell et. al., 2011). Indigenous theorists have contrasted Eurocentric heteropatriarchal family

structures with the expanded and pressures of the market based, resource intensive economy (Smith, 2006). Reclaiming and renewing Indigenous family and community based planning and capacity building has meant taking on the often painful work of understanding how colonialism has impacted parenting models and interrelationships. It means learning to learn how to renew ourselves in relationship with gardens, with animal relations, with plant medicines and with each other. We are only just beginning this work and after a successful week-long hide-tanning workshop, funded by the Ontario Arts Council, we are hoping to expand into questions of tipi-building and housing questions, food security and language workshops. The overall lesson is that sustainability is rooted in Indigenous knowledge, again, but also in a reflexive approach and we need help from Elders, from the land, from teachings. It will take further work and unpacking of the things that get in our way and the ways that an Indigenous worldview can address those barriers. Working Together within a gifting paradigm would mean an intensive approach to decolonizing principles while supporting Indigenous efforts at land reclamation, cultural renewal, and worldview recentering.

Future Steps: Gardening for Wellbeing

In 2015, I began written work linking the violence facing Indigenous women in Canada, to the violence facing Indigenous traditional lands and waters. It will be important to interject Indigenous environmental thought in all of our research, policy work and written work in coming years, as we also recover from impositions of colonial violence in both external and internalized ways. I've also begun designing courses that center Indigenous language, economic renewal, and political renewal, as sites of strength and resilience for Indigenous women and Two-Spirit communities, and also as

methods of broadening and deepening environmental thought. In very literal ways, this will mean the renewal of gardening as an overarching concept and actual labour-intensive activity; it will mean the renewal of food security, sustainable planning, sustainable and culturally rooted housing.

At the nexus of health and environmentally sustainable planning, the material and spiritual needs of Indigenous Peoples are intertwined. The struggle for sustainable material security can be redefined by Indigenous communities which see the land as home, and the renewal of the land base as a necessity in both community and health planning. Renewing the gardens is also about renewing the land base and growing from there. Healing and wellness evoke community planning needs that are rooted in gifting and Creation. Peat (2002) links healing with environment with gifting, writing about the gifting of tobacco as integral in Indigenous healing practices that continually remind people about the source of information, ideas and wellbeing. Peat asserts, "it is the song, or the spirit within the medicine, or the relationship that moves in a circle of balance within the sick person, the medicine person, the plants and herbs, and all the powers of sky and earth" (p. 146).

Knowledge gardening is described by the scholars of the Integrative Science network, including Elders Murdena and Albert Marshall, as a process of teaching again about the interconnected web of life, while bringing Elders and Youth together to have these learning experiences (Bartlett, Marshall, and Marshall, 2012). 'Learning to learn' has been about laying the groundwork for a Two-Spirit , feminist, Indigenous aesthetic that is intersectional, fluid, and always rooted in authentic traditional thought. In a sense, this work was like a 'coming out', starting with my own perspective and then

growing a concept—the idea of a Two-Spirit aesthetic—seeded and rooted in the gardens my mother gifted to me. A Two-Spirit analysis seeks to understand the deepest workings of the colonial state in order to undo and thoroughly challenge its mechanisms, while also growing something beautiful and good again, just as our families and communities have done even through the harshest times. At the same time, these interconnections are unraveled and re-woven in gardens of Indigenous knowledge.

Conclusion

In deeper waters, are consciousness, memory, and an ability to live in the waves of reality—in dreams, in waking life. Sustainability necessitates Peace, and Peace necessitates an honoring of all voices, throughout all of Creation. The absurdity of colonialism is that it allows us to distract ourselves from the possibility that some societies have already figured out the sustainability conundrum, and a whole host of other human/environment relationships. Colonization is a system of total destruction, so it makes sense that a movement concerned with the continuance of life, might take the process a bit more seriously. Numerous Indigenous educators, researchers and theorists have pointed to a politics of distraction, always creative in ensuring that the peoples of the Americas do not deal well with Indigenous nationhood or knowledge traditions (Smith, 1999).

What I've learned is that the roots of the problems of environmental catastrophe, or of human/environment disconnect, or of environmental disappearance, are at once deeper and more complex, and also simpler in some ways. I've over reached at times, and bridged many forms of Euro-Western environmental theories, in order to illustrate the insidiousness of Eurocentric thought. Eurocentrism manifests as progressive, linear thought, which expresses overt or more subtle discomfort with Indigenous Creation truths, with gendered teachings (for reasons that have a lot to do with the dichotomies of Eurocentric thought) and with the political priorities and necessities of Indigenous nations. More work could be done in this area, however, with particular attention paid to specific areas of environmental thought by Indigenous people themselves for the wellbeing of their communities, and their own pathways of thought. What I am calling

for is an approach to environmental theory and sustainability creation which is anti-colonial and which creates space and time for the renewal of Indigenous worldviews and ways of life.

Colonialism presents ever-growing problems that both Indigenous and settler societies need to confront. The impacts of colonial power structures are as intertwined as we are with the whole of Creation. Vine Deloria Jr.'s (2003) words resonate as solutions to current environmental crisis are sought:

> It is becoming increasingly apparent that we shall not have the benefits of this world for much longer. The imminent and expected destruction of the life cycle of world ecology can be prevented by a radical shift in outlook from our present native conception of this world as a testing ground of abstract morality to a more mature view of the universe as a compressive matrix of life forms. (p. 283)

Lacking in my analysis has been language itself. Language's relationship to spatiality and temporality has not been easily understood using only English. Dichotomies, too easy to reinforce on the written page, did not manifest through more easily flowing back and forth negotiations of sacred masculine and feminine pairings throughout Creation. Thanksgiving to Elder Brother Sun in the morning, and Grandmother Moon in the evening, do not feel like dichotomous or hierarchical structures, but do feel like cycles of daily life. This understanding of balance is only beginning. For this reason, speaking to the linguists and language speakers will be a necessary second step to my work. I wonder if it is three-dimensional, unlike the circle written on a page.

Neo-liberalism is an expansion of systems of surveillance, power and control in which "multiple eyes at every level—eyes whose gaze is finely tuned to the inflow and

outflow of funding and to the multitude of mechanisms that have been generated to manipulate those flows" (Davies, 2003, p. 91) work to promote surveillance from within as well as hierarchical systems. In this way, Indigenous Knowledge production and ultimately land and labour concerns might be shored up in the name of new positivist constructions of "evidence based" practice that reflect to the goals of institutions and ultimately, the state (p. 97). The response from Indigenous Peoples will be new approaches bringing traditional knowledge into the present and future, inclusive of environmental learning processes that should be well understood as integral to community wellbeing and planning.

Finally, while I've presented an approach that is gendered and intersectional, I would argue that I've only begun to plant the ideas. Indigenous feminist and Two-Spirited analysis needs more input, more team and group analysis, and further development as all marginalized voices in Indigenous communities are heard. It is pressing to discuss and stem the tide of violence against Indigenous women, youth and Two-Spirit people, especially now, as settler-state governments are pressed to face the systemic causes of large numbers of Indigenous women going missing and being violently murdered and as colonial space/temporal organization encourages such systemic violence. A gendered, decolonizing and intersectional approach to addressing sustainable community planning would allow Indigenous communities and families increased space and time for healing and renewal. The garden, tanning, maple tapping and other projects of the Seven Directions Environmental Education Center are going to be my focus as we create our own space for decolonization and cultural renewal.

Indigenous environmental theorists should be engaged in research across a number of research areas inclusive of the following.

- Housing, homeless and migration studies, where Indigenous Peoples and environmental change are most certainly included as central to the studies
- Mental health and addictions, already understood as an Indigenous-culture centered process of research and healing, could further benefit from environmental study looking at land and water degradation and human relationships
- Gender based policy research is already enriched by Indigenous women's analysis and could be furthered by Two-Spirit and Indigenous ecological studies
- Two-Eyed Seeing in environmental sustainability education and research very generally should be developed further, with particular attention to the ways that culture in research and Indigenous languages in research, nurture new knowledge

Currently I am writing a book chapter about the Oil Sands, violence against Indigenous women, and the solutions that Indigenous women and Two-Spirit people (including sex workers who see their economic choices affected by intensifying natural resource extraction) bring to conversation about Canadian economic growth and sustainability. I am also writing for an anarchist publication about the interventions that Indigenous feminist environmental teaching would make in anarchist studies and other forms of critique of the sustainability of the Canadian political system. I mention these

publications because they show the broad application of a burgeoning ecological, gendered and decolonizing framework rooted in Indigenous teachings.

Based on the work of many Indigenous scholars and their allies, it is apparent that research and community planning can center Indigenous practice and worldview while also engaging with the mainstream. Delving more deeply into this work will require language immersion as well as cultural immersion, alongside allies.

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Appendix

Fig. 1 Two-Row Wampum 'scroll'

Fig. 2 Hide-Tanning, Summer 2015

Fig. 3 Hide-tanning, Summer 2015

Fig. 4. Summer Corn, 2015