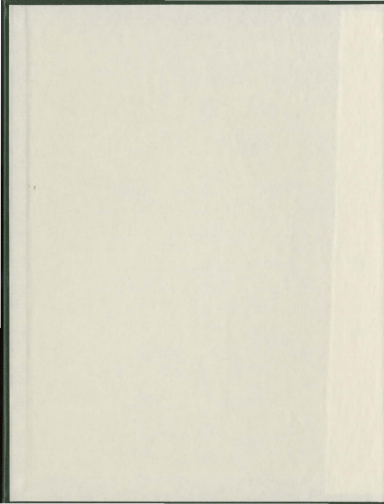


ST. BONAVENTURE'S COLLEGE GARDEN AND
COMPOST PROGRAM:
HARVESTING CRITICAL AND TRANSFORMATIVE
LEARNING IN A PLACE-BASED EDUCATIONAL CONTEXT

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**St. Bonaventure's College Garden and Compost Program:
Harvesting Critical and Transformative Learning in a Place-Based Educational
Context**

by

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Abstract

This thesis examines a garden and compost program at a private school in St. John's, Newfoundland, Canada. It marks a unique educational teaching and learning dialogue between students, teachers and the wider community examined through the prisms of Sacredness, Place-Based Education, Critical Pedagogy and Transformative Education. Specifically, this thesis examines, through a reflective narrative, the influence a compost and garden program can have on a school community's curriculum, in the classroom and outside of it. As well, it examines whether such a program can offer other schools a model of working with community partners, local experts and government agencies that they could emulate in creating their own compost and garden initiatives, in schools and communities.

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Chapter 1: In The Beginning

"Let the earth produce all kinds of plants, those that bear grain and those that bear fruit- and it was done."

Genesis 1. 11

A chance conversation with fellow St. Bonaventure's College teacher David Martino in the Departure Lounge of Pearson International Airport became the genesis of a composting program we promised to work towards. I left it there, sure it would founder like a codfish at the end of a hook. The first day of school dawned, passing in a reverie of classroom rule revisiting, textbooks being handed out, assignments drawn up. Then David appeared at the door.

A moment, he asked, one finger held aloft in promise.

I came out, keeping half an eye on the growing restlessness that was gathering momentum, so akin to a storm roiling out into the North Atlantic, in the classroom I'd just left.

Do you remember we were talking about composting? he asked. I nodded. *Well, I just had a conversation...*

Students, back from jobs at summer camps in Ontario and New Brunswick where composting was the norm, were questioning the wanton waste of organic matter at the school. Wasn't there anything we could do as a school community?

Funny, David had told them, because Mr Peters and I were just talking about this very thing.

Somehow, in the haze of those first weeks we managed to secure the right to put the compost bins behind the gymnasium on the school campus itself. We congratulated ourselves, spent a Saturday morning rigging up the bins and raking leaves and stepped out upon a journey that none of us ever thought would be so rugged in its dizzying highs and soul-searching lows. This dissertation is, in essence the story of how we became growers of food, how this act of putting seed to soil placed us firmly in our local community and, perhaps most importantly gave us the opportunity to broaden our sense of selves. We, students and teachers at a private K-12 school in the Jesuit tradition located in St. John's, Newfoundland had undertaken a journey where the possibility of transformation loomed, where we as a school community might become more ecologically enlightened and recognize natural limits within which we could work for sustainable growth. St. John's, and Newfoundland and Labrador are not today renowned for environmental stewardship. Rather, interactions between human and natural communities have been premeditated upon the principle of acquisition, of gain, without regard necessarily for the well-being of the local ecology. Ursula Kelly, writing as an educator and Newfoundlander contends that the "ideological basis of incidents of environmental and ecological abuse [should] be examined as cultural and systematic" in this province. It is through dialogue in education, immersed in place and viewed critically that we can hope for transformative ends towards a more sustainable tomorrow (2008, p.92).

Wendell Berry argues that "our present leaders - the people of wealth and power - do not know what it is to take a place seriously; to think it worthy, for its own sake, of love and study and careful work. They cannot take any place seriously because they must

be ready, at any moment by the terms of power and wealth in the modern world to destroy any place" (Theobald, 1997, p.115). Through working hard in a place can come not only fruits of one's labours but also labour that sustains the personality and the environment (Theobald, 1997, p.90). Thus, through our work we were embodying St. Ignatius's contention that we be men and women for others by celebrating the divine all around us and becoming more environmentally aware, ideas that are intimately related as this dissertation will show. Such an understanding of the world provides a framework for active citizenship - ostensibly a goal of education. This marks another theme this dissertation will examine. Within this light two questions propel us forward in order to grapple with the meanings, internal and external, to this project:

- *What influence can a composting and gardening project have on a school community's curriculum, both in the classroom and outside of it?*
- *Could the St. Bonaventure's College composting and gardening project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?*

1.1 Cultivation of Academic Themes

This dissertation unravels the meanings derived from within the project itself, and in the world beyond educationally, spiritually and in this project's capacity to offer what David Selby calls disequilibrium. That is the opportunity to engage "holistic, global and transformative perceptions" of humankind's impact upon the world. These perceptions are not necessarily balanced. Rather, perched, "out of equilibrium [one] can see the

totality of the system" (2002, p.85). Robert MacFarlane's climbing of a favourite beech tree to a forked lateral branch set against the curve in the trunk thirty feet off the ground offers perspective on a life lived in a busy modern city,

"a way of defraying the city's claims on me... If I remained still for a few minutes, people out walking would sometimes pass beneath without noticing me. People don't generally expect to see men in trees. If I remained still for longer, the bird would return. Birds don't generally expect to see men in trees, either. Blackbirds fussing in the leaf litter; wrens which whirled from twig to twig so quickly they seemed to teleport; once a grey partridge, venturing anxiously from cover" (2008, p.4).

This is disequilibrium in practice, the experience of being slightly off-kilter in perspective where we get to see and experience the majesty of life in more fullness. Within the context of the garden and compost program this allows us to see that the seed is part of the soil. Its growth is derived from nutrients and minerals from the earth, worked thoroughly over by a multitude of insects, worms and fungi. The seed is a "transient, unstable entity with constantly changing molecules dependent on a constant flow of energy to maintain proper form and structure" (Morowitz, 1972, p.156). As are seeds so are we humans transient and unstable. In recent times we have come to feel that we can manipulate the growing process to our own ends (Monsanto 2009, monsanto.ca; Pollan 2008, p.120). Dependent upon constant inputs of energy - caloric, electric, human - to keep us and our societies going we lose sight of the specifics of our bio-localities, their stories of commons, in the roaring hub of a globalized world.

The commons, C.A. Bowers notes is "an ongoing relationship between cultural practices that characterize daily life and the natural systems that make life possible..." (2006, p.32). But today, "the worldwide promotion of consumerism undermines the intergenerational knowledge that represents what remains of community self-sufficiency", and erodes the commons, the working intersect between human and natural worlds (Bowers, 2006, p.132). We must keep in mind that we are but one species within an interconnected web of life. Bowers argues this means we must move past the linear thought processes which celebrate quarterly financial earnings over natural life cycles. There is value in hard work for profit, but within the boundaries of natural sustainability. In this light "the intergenerational knowledge of how to grow and prepare food becomes one of the most promising expressions of resistance to the industrial market..." and the societal, including educational, forces which perpetuate such a model (Bowers, 2006, p.136).

Through the compost and garden program we are trying to return to the story of the universe (Berry, 1988, p.132), housed in a specific locality where human actions are contextualized and realized through a specific bio-region. There is resonance in this local story because it parallels stories of other groups, in other localities, in other bio-regions. We find it in the workings of Food Education Action St. John's (FEAST) who seek to promote sustainable food production through small-scale gardens; at Martin Luther King Jr. Middle School in Berkeley, California where *The Edible Schoolyard* helps students and teachers explore the power of food cultivation, harvesting and preparation, and its links to the state-prescribed curriculum, within cultural contexts (Edible Schoolyard, 2010, edibleschoolyard.org); we find it too in the workings of small-scale farmers like

David and Loretta Fresquez, toiling in small but sustainable plots in New Mexico. Fresquez notes that, "people have a natural affinity to come together over food" realised through local agriculture, of a couple working in tandem with the land "without depleting the soil, using no chemicals and wasting no water" (Klindienst, 2005, p. 30). This dissertation then explores the possibilities for transformative pedagogy and critical education housed within a specific place and mandate - the SBC compost and garden project - to be realized.

Yet we have in contemporary, globalized times distanced ourselves from any one place. As Wendell Berry avers, we wish to leave open the opportunity to exploit any area for economic gain (1997, p.115). We see places as venues of economic exploitation. In coming to see the benefits of place beyond such narrow economic confines, to embrace the splendours in bio-regions, we may wish to close off such wonders to strangers, to infuse our education towards "inward-looking, intolerance of outsiders, propensity to entrenching traditional power relations and a concern only for environmental quality in immediate neighbourhoods" (Cameron, 2008, p.294). Place-based education can promote a deeper awareness of one's surroundings, concern for its well-being and empathy for the many bio-regions round the world. This is what seventeenth century Czech educator Comenius was driving at when he called for students to be educated in nature so to be prepared for life itself (Martin, 2004, p.4). It is furthered by Brian Watchow's call that we be apprenticed to a place, so as to utilize our local environments as teachers (2007, p.236). "Place based pedagogies," argues David Gruenewald, "are needed so that the education of citizens might have some direct bearing on the well-being of the social and ecological places people actually inhabit" (2003, p.3).

This is the same mind-set that drew together nineteenth century Norwegians, concerned about the encroachment of the industrial landscape upon their pristine wilderness - which had come to embody not only their way of living but their spiritual *raison d'être* and burgeoning nationalistic impulses- to form *friluftsliv*, roughly translated as Free Nature. Through "nature life, outdoor life and outdoor activities"- an admittedly wide spectrum which includes hiking in the forests, canoeing over streams, gardening, bird-watching and camping - one endeavours to "develop enduring relationships to nature that would contribute to earth's health" (Dahle, 2007, p.30). That philosophy of *friluftsliv* becomes important within the context of the garden and compost program because we are trying to link students, teachers and the wider school community back to *this* place in a meaningful sense wherein they recognize historical roots there tethered, as well as possibilities for human life derived from the land today, and tomorrow.

The disregard in which many of us in Newfoundland have come to hold our localities and biotic communities underscores the importance of place-based education (Kelly, 2008, p.83). It also speaks to the importance of *praxis*. Paulo Freire noted that we must experience the world to speak of it (1973, 85; Gruenewald 2003, 3). Freire's writings were concerned with exposing the contradictions inherent to our industrial, consumer society. He called for more than mere action against this society. By blending critical action and reflection/understanding, or *praxis* everyone can be awakened to the oppression inherent within society, from workers to managers to factory owners. Enlightened people would, rightly, try to change society for the better.

However, Freire has attracted criticism, particularly from C.A. Bowers, who contends that Freire and his disciples within the educational community are following a

linear chain-of-thought every bit as oppressive and dominating as the one they oppose. "The God-words of the liberal lexicon such as 'emancipation', 'freedom' and 'dialogue' cannot hide the fact that promoting the idea that there is only one approach to knowledge supports the forces of globalization" (2006, p.78). Bowers further contends that it is not critical awareness, or praxis at fault here but the assumption that there is only one means to attaining it, versed in the terminology of the dominant society - white, North American, middle-class affluent. In opening ourselves critically to the many oppressors we find in contemporary society - ecological and educational as well as human social justice issues - we must then be willing to accept a multitude of responses to it (2006, p.80). Freire's identification of the great schisms between the rich and poor that comprise his seminal work, *The Pedagogy of the Oppressed*, marks a beginning. This dissertation could not have stepped into the arena of critical education without recognizing his work. But I contend, in line with Bower's argument, that Freire simply did not go far enough. He did not expand his thinking of oppression beyond human rights alone. Therefore he missed the interconnections between oppression of humankind and the ecological destruction of the world which supports humankind. Further, Freire saw liberation within the prism of the dominant class he heralded from. It is the celebration of the commons, the rediscovery of the historical meeting place of the human and wider biotic communities that will provide mutual benefit and ultimately end the oppressive state in the world today, environmentally, educationally and spiritually (Bowers, 2006, p.25).

The final theme explored in this dissertation is Sacredness. I do this because I was raised a Christian, am familiar with Christianity's stories and, "it informs my consciousness, my language, and my dreams" (Berry, 2002, p.307). Further, the garden

and compost programs are housed at St. Bonaventure's College, a Jesuit Catholic educational community. Where possible I will make parallels with other religions and traditions, even invoking Edmund O'Sullivan's hands off approach in dealing with the greater mysteries of the world through "the story of the cosmos" (1999, p.196). But it is in exploring Christian teachings of agriculture and land, as espoused in Psalms 104 that, "Thou sendest forth thy spirit, they are created" that I come to see the Divine presence in all living creatures closest to my understanding. This dissertation explores the Christian themes of stewardship, framed within a biblical code of morality and a critique of how it limits us to an anthropocentric view of our place in the world. For example, Craig Sorley, an evangelical Christian farm consultant working in Kenya has utilized the Bible and ecological notions of sustainability to craft *Farming God's Way* which makes use of the totality of *relationships* with the local environment to improve farming yields (Rice, 2009, Paragraph 7). The Christian Bible is a work that can inform an understanding and working towards the undulating mystery of the world round us. To my mind this latter tradition of spiritual sacredness informs the academic traditions of place-based education, critical education and transformative pedagogy herein, as well as how humanity interacts with its Earthly home. These four academic traditions inform this dissertation's story in unravelling the meaning housed in the St. Bonaventure's College compost and garden project.

1.2 Finding Our Story

We in the modern world have lost the thread to the story that puts us into a direct relationship with the earth (Berry, 1988, p.123). Where once we depended upon creation stories to ground our lives, such as the one found in the Christian Book of Genesis, today we are grappling to find a story that encompasses the new reality of a world based upon the global marketplace. This is what Edmund O'Sullivan calls the, "process of globalization, which is a planetary vision based on trade and marketing, is a movement into a transnational world based solely on commerce." This narrative, adopted by many modern nation-states has had a profound environmental impact, largely for the negative. O'Sullivan refers to it as "a morbid process that is toxic to the earth and its inhabitants" (1999, p.17).

This latter narrative is versed in scientific, technological jargon, rationally laid out. It squares neatly to the demands of the global marketplace which promises an economic Manifest Destiny, whereupon no boundaries can ever be imposed upon economic growth. But this new story lacks the moral panache, the certainty of our human place within our world. It is grafted over human connections to the world, suffusing our interactions with our surroundings until we can only see everything in the light of its economic value. We are cast adrift, removed from the intricacies and connections the world offers within its ecological webs even as we are physically present. But nothing more. As a teacher who has been long interested in ecological sustainability, but who found it difficult to broach this goal within the curriculum of either the classroom or the school, I have been, and am still struggling to see the connections between schools and the world around me.

For example, during my teacher training I taught at a high school on Newfoundland's Burin Peninsula. I taught students a variety of courses but one of my favourite, and most frustrating, was World Geography 3202/3200. Intellectually I understood the course material but I often had a hard time linking it meaningfully to students' lives. After a particularly long class where I met the usual symptoms of student apathy - pronounced yawns, background chatting, shrugs of passive indifference - my cooperating teacher suggested I try to make the class more meaningful.

"Bring the curriculum to them," she suggested. "Make the global local."

I nodded but found the idea off-putting, a practiced cliché. How could I make a curriculum based on global inequalities in farming and food production resonate in a community still suffering from the impact of a cod fishing moratorium? When I looked out the window all I saw was snow blasted along by the infernal winds. There was, I decided no point of connection between the two. Partly, I was too immature to see the possibilities. More to the point I was willing to sacrifice student understanding for the banality of what became a largely boring intellectual exercise because I found comfort in global ideas rather than local realities. "Localism," Sheila Giesbrecht notes, "allows students to explore their worlds through hands on learning experiences and build on core curricular areas." Localism links the classroom to the community, makes education everywhere (2008, p.27). Students and teachers in this light begin to create maps of their localities that make them resonate with meaning. *This is where Ruth kissed Johnny. Or that's what he said anyway. And over there, behind the convenience store that's where I found a fifty dollar bill once.* These are story maps, housed in geographical places but extending beyond and into them in a manner known best by the story-teller (MacFarlane,

2007, p.15). Had I been able to negotiate Grand Bank, Newfoundland and its historical realities as a rich cod-fishing and trading centre blessed by geographical happenstance into my World Geography lessons they might very well not have become removed from my students, intellectually, physically and spiritually, but part of something that resonated with them through a myriad of layers of approach and the wide spectrum of objectives to appreciate. Contextualized thusly it could have become a lesson in critical pedagogy (seeing their community as a food provider historically, newly removed and dependent on others), housed in a specific place with possible transformative educational results (that students could find new avenues for Grand Bank as a food producer in aquaculture and/or community gardening).

The need to re-connect our society with the natural world is underscored by the desire to find solutions to the problem of global warming. The latter is a symptom of humankind's break from living within the limits imposed by nature (Berry, 1988, p.121). Wendell Berry writes of his life as a farmer and writer, of the lessons derived from labouring to make a successful farm which has informed him intellectually and physically, and also spiritually. "The differences between knowing a place and living in it, between cherishing a place and living responsibly in it had not occurred to me... They are critical differences," he writes of the formative years in which he learned to farm (2008, p.531). Success was hard-earned, financially elusive, but his work on the farm connected Berry tangibly to the world. The greater shame, he contends, is that farms are no longer passed along from one generation to the next. This lost tradition served to make people experts on their localities, to know the land and save the soil from bearing the excesses of humankind's learning curve upon its fragile constitution (2002, p.193). In

Newfoundland and Labrador there was a similar tradition in making a living from the sea, and land. Fishing required a knowledge of the seasons and climate that was passed down from father to son. So too were the family vegetable gardens nourished with kelp and capelin from the ocean.

Both Thomas and Wendell Berry find the thread of humanity's connection to the earth through education of, and in, Nature. Students today have to learn to appreciate the world, to discover its intricacies for themselves. To do so they must familiarize themselves with the texture of a fallen maple leaf in Fall, know the giddy loss of control that comes from jumping across seaweed-slick rocks on a tidal beach feel and appreciate the smell of soil, rich with nutrients, after a May shower. To live in the world they must get scraped and bumped and learn in order to appreciate a life lived in partnership with the world (Chouinard, 2005, p.173). Yet today, by and large, students are left inside schools. Nature literacy has been lost in the push to prepare students for the demands of the global marketplace. Children today face an, "extinction of experience... [where] there are few fields and woods, organized activity has supplanted free agency, the computer rules and invisible fences of fear have arisen between kids and the nearby wild" (Pyle, 2008, p.159). The need for a means of access becomes explicit: to know and protect the world students need to be immersed in it. One must be able to know the world before one can speak the word (Gruenewald, 2003, p.4). It is a critical bind for teachers and citizens in a globalized age, a moral catch-22. At the very moment we need children and students to experience the world in order to help protect it they are being ushered into the classroom or inside, and kept there, for longer periods in the name of maintaining

competitiveness in the global economy and/or out of a fear that children may get hurt. Unless they experience the world, learn from it, they cannot help it.

In *Arctic Dreams* Barry Lopez searches out the lessons humanity can glean from the bleakly beautiful, often hostile northern habitats of earth. In the European tradition the north has been seen as a test of endurance, something to best. The hope of a North-West Passage promised wealth and prestige. Consequently ill-prepared and unwilling to adapt to the means of survival of those who have lived and thrived within this fragile ecosystem for generations, many European expeditions turned back, froze or disappeared altogether. Under such extreme conditions the artificial separation between humankind and nature nurtured by Cartesian thinking was proven dangerously, often fatally, false.

Lopez argues that many Inuit have a hard time understanding such a world, where humanity is divorced from nature in a separation analogous to cutting oneself off from light or water. Inuit base their understanding of the world within their experiences of their lived habitat. There can be no separation between humankind and nature because the former depends wholly on the latter for sustenance. If they do not pay attention to the subtle clues nature provides - the snow-covered seal holes, the first fissures in the winter break-up of ice - then their ability to survive, to eat, has been compromised. They call this *ivu*, or nervous awe of the landscape around them. It compels their understanding of the world (1986, p.202). *Ivu* seems a good word for grappling with the mysteries of our surrounding world. In placing seed in soil, in nurturing soil with compost, manure, organically derived fertilizer and water we are placing trust with our surroundings that we will receive produce which will help nourish us. It is not a sure thing. The myriad variables of nature - a shortage of rain, too much rain, a cold spring and early fall, an

early spring and cool summer - can ruin a crop or circumscribe its bounty. That is, one must understand the locality one finds oneself within before speaking on its behalf, whether to add, augment or destroy. Such experiences inform a narrative of connection, a story of place which resonates because it can lay parallels to "the universe story" (O'Sullivan, 1999, p.201).

The understanding of localities connects us to larger truths about our lives here on earth, no matter the geographical location or biological composition. David Gruenewald argues that localities extend student learning, offering a prism through which students and teachers look to delve deeper into issues of local importance. "People must be challenged on their own concrete situationality in a way that explores the complex interrelationships between cultural and ecological environments" (2003, p.6). This asks students and teachers to get bumped and scraped within their bio-communities, to better learn the world they operate within (Jensen, 2007, p.230). Once the lesson is theirs they become the teachers and activists, the voice for making places resonate tomorrow. In this way can working and living intimately within a bio-region draw lessons from cultures and religions fostered through similar intimacy with the natural world, either through agriculture or hunting and gathering.

Luther Standing Bear, speaking of the Sioux people's tradition, notes, "that we are of the soil and the soil of us..." (Suzuki, 2002, p.78). This clearly links to the Genesis story, 3:19, that "soil thou art and unto soil thou shalt return". Understanding that soil has been, and continues to be the life-force of human existence do we recognize value in dirt. As Aldo Leopold expanded upon in *A Sand County Almanac*, "Land then is not merely soil; it is a fountain of energy flowing through a circuit of soils, plants and animals... We

can be ethical only in relation to something we can see, feel, understand, love or otherwise have faith in" (2008, p.287).

We can be ethical to places where we live and work because it is in such places that we find meaning, resonance and sustenance. Indeed, throughout our time here on Earth we have managed to succeed in a multitude of bio-regions (Bowers, 2006, p.168). At the same time humans have developed a slew of stories to explain the meaning of their interactions with the world, where we came from and the dictates of our behaviour here, so that it can be plentiful today and tomorrow (Berry, 1988, p.63). The compost and garden project begun at St. Bonaventure's College is a re-discovery of the creation story within the context Wendell Berry provides in his essay *The Gift of Good Land* where, "one lives in a neighborhood" not just of the living, but of those who passed before you, "and of the unborn to whom the living in turn will bequeath the land..." In preserving a story of creation one, "must take care... of the land, which is never a possession, but an inheritance to the living as it will be to the unborn" (2002, p.297).

We do not think of land like this anymore. Land is something you acquire, exploit and sell. However, soil can also be understood through Christian ecology which that nourishes us both physically and spiritually. The Jesuit motto of *Ad Maiorem Dei Gloriam* (For the Greater Glory of God) in this light can become a working partnership with local environments. The Ignatius Farm in Guelph, Ontario is an active example of a place sustained by the action of sacredness. Today the farm is part of a larger spiritual retreat centre. It is an organic farm, setting a precedent within the agricultural community wherein spirituality and care for the soil and earth are mutually beneficial. This farm

offers an example to how our own garden and compost project can benefit the community agriculturally and spiritually (Ignatius Farm 2010; ignatiusguelph.ca).

1.3 Restoration of Life

"It smells gross," I heard after a month's time.

"Yeah, and the Grade 8's and 9's make fun of us," chimed in another student. Shy smiles were giving way to firm frowns of convinced abuse. Two students had quickly multiplied into a dozen. "Why do we have to compost?"

I knitted my own eyebrows together into my best compost guru pose, as though I had been expecting just such a confrontation. I let out a low, thoughtful sigh and nodded my head slowly, sagely. Behind this mask of thoughtful repose my brain scampered for footholds on the slippery ground of terra incognita. Having begun the compost program I had envisioned it segueing smoothly into a gardening program. Peer pressure, the smell, battles to fight off fruit flies real and imagined - these were concerns that had never crossed my mind. I managed to mumble my way to a non-committal promise of 'looking into it'. I was sure that the program, weeks old, was destined for that fate relegated to so many good ideas in education. That is, they demanded too much time, too much effort; did not bring enough reward and thus were unceremoniously stuffed into the bin.

I needn't have worried. Even as those Grade 7 students complained, change was progressing at its own steady, turtle-like pace. Peer pressure works both ways and many of the senior students were exerting their influence by calling out those who tossed apple cores and banana peels into the garbage. They lauded the volunteers, extolling them about the benefits their actions would bring about.

While at that initial stage bridging the school compost program with the demands of the curriculum of Newfoundland and Labrador was only an idea, what we were witnessing was genuine learning. Genuine learning isn't tied necessarily to a classroom. It can happen anywhere. As educators we've all seen it. It's that moment when a sometimes vocal, often silent *Eureka* is achieved and the proverbial light bulb illuminates an idea or concept. Genuine learning happens within a context that makes such a moment more likely, and resonates at a higher frequency. Slaloming down a river in a kayak one masters, without thought, a Greenland Roll. This is an essential skill for any paddler, but one that comes only with practice in context. So too with the composting, and later gardening program. Understanding intellectually the need to compost becomes a more resilient idea when it is also understood through practice and that we are creating soil, essential to life for humans. When we're using composted soil to grow vegetables and have learned and taught lessons in classes from religion to literacy within the garden (Chapter Five goes into more depth with regard to specific courses and objectives that link to the garden and compost program) the chances for analysis and practice grows not only for the student but also the teacher. This is genuine learning.

The promotion of gardens as the vehicle to higher understanding of the world isn't even a new idea. Worried that students were "alienated from their human right of trees, fields and flowers...", that they might be bored by lessons housed in the artificial environment of the classroom the farm school emerged nearly a century ago. "I look forward to the day when school gardening... may become an integral part of the work of all schools," said Philander Claxton, Superintendent of American schools in 1916 (Lawson, 2005, p.31). While such farm schools enjoyed a brief tenure, today we have

largely replaced them with schools that labour within artificially created, largely indoor environments because (ostensibly) they best prepare students for the demands of the global marketplace. But this preparation is banal, does not demand overtly upon student intellects and drags down the commitments required of a citizen in a locality (Slouka, 2009, p.40).

Without those Grade 7 students being simultaneously propelled and repulsed by their duties as composters/ learners the project would have run aground, jarred by the combined assaults of time constraints, scholastic demands and misunderstandings of just what our project was trying to do. Genuine learning is an important element in this dissertation. It is tied up in the experience of *friluftsliv*, of gardening and composting examined through curricular objectives but also our own experiences. Genuine learning happened within the gardening and composting project when students and teachers were able to unite the practiced skills of planting seeds, harvesting leaves and thinning plants, all done in nature, the sun hot across our noses and cheeks, the wind whistling through our hair, soil caked black beneath our fingernails, with what we had learned in the classroom and in life. While education can be a revolutionary act, it can also advocate a societal *status quo*. Education does this through the promotion of curriculums that represent the middle-class ethos of the Western world wherein "knowledge is reified and objectified in such a way that students are socialized to accept... that knowledge actually exists objectively disconnected from the subjective realm of human experience" (Darder, 2005, p.256).

By objectifying knowledge we remove it from the commons. Knowledge becomes something greater, more mysterious and thus accessible only to those who

conform to the globalization process. Bowers notes that our liberal education system "ignores the cultural and educational roots of the ecological crisis..." meaning that the act of revitalizing the commons is more revolutionary because it "contributes to the revitalization of the intergenerational knowledge that empowers people (locally)" (Bowers, 2006, p.180).

In beginning this dissertation I was vaguely familiar with the idea of education not as a public good *per se*, but as the means of creating tomorrow's workers and consumers (Freire, 1973, p.111). What I hadn't been prepared for was the possibilities of counter-balancing this hegemony housed within the process of beginning and working through the gardening and composting program for both students and teacher involved. That students would eventually take ownership of this project had been the professed plan from its inception. Without those students being simultaneously propelled and repulsed by their duties as composters/ learners the project would have run aground, jarred to shore by the combined assaults of time constraints, scholastic demands and misunderstandings of just what our project was trying to do. The students found, however that there was room for growth into positions of leadership within the project. They made it theirs, tied not specifically to curricular ends in pursuit of a job or scholarship but to outcomes they devised of having fun, helping others and genuine learning. At this point the possibilities for critical awareness, transformative action couched under the umbrella of Christian stewardship became apparent to me. It is here that the story begins.

This dissertation is broken up into six chapters. The second delves into the literature relevant to the academic themes explored in this dissertation - critical pedagogy, transformative education, place-based education and sacredness. The third

chapter maps out the methods used in the research and presentation of the garden and compost program at St. Bonaventure's College in this dissertation - writing as method, praxis and storytelling. It closes with a statement on ethics. The fourth chapter is a narrative of the process by which the garden and compost program came into being, the struggles and successes achieved and the lessons learned along the way. The fifth chapter explores the garden and compost program and its relevance to the Newfoundland and Labrador curriculum, touching on a wide variety of courses across all grade and age levels. The sixth chapter seeks to answer the questions asked in this dissertation. They are:

- *What influence can a composting and gardening project have on a school community's curriculum, both in the classroom and outside of it?*
- *Could the St. Bonaventure's College composting and gardening project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?*

Chapter 2: Literature Review

"A life of small scale farming may appear to be primitive, but in living such a life it becomes possible to contemplate the Great Way."

Masanobu Fukuoka (1978, p.110)

The pieces that became the St. Bonaventure's College garden and compost program fell in place with time and patience. The administration's worries about vandalism directed at the garden, or adolescent apathy were replaced by admiration for student commitment and work in helping make the garden a reality. Students gave freely of their time and energy. Their enthusiasm came to remind me that gardening and composting are a celebration of life itself. There was resonance for the students and teachers in the tangible action of farming, reaping real results. Personally, it became easier to find my place spiritually within the Jesuit pedagogical and spiritual tradition of St. Bonaventure's College because of the program.

Where religion often asks parishioners to accept on faith the miracle of life and the continuing presence of the divine all round us, the act of planting seed to soil, of weeding and watering and finally harvesting helped anchor me within a larger story encompassing the enormity of life, in all its mysteries and wonder. Edmund O'Sullivan refers to this story as the grand narrative. It provides, "a powerful visionary context embedding the human community within the earth community and ultimately within the universe whose very foundation goes back to the fireball" (1999, p.30). The knowledge of the creation of the universe carries with it wonder at why it all began. This greater mystery is invoked on a smaller scale by planting a seed, watching it sprout into a

plant from soil nourished, indeed created, from compost. This is *ivu* of what this place is capable of for all life - animal, plant and human.

The academic traditions this dissertation makes use of were already strongly rooted in this project before a word was written. Much as the potato cutting or turnip seedling needs sunlight, soil, compost and water to succeed and grow so did this project need sacredness, transformative pedagogy, critical education and place-based education to fully develop. Sacredness helps ground and contextualize the project within the grand narrative, or cosmological story of Thomas Berry (1988, p.121), showing the wonder of life's great mysteries at work even in a small garden and compost project. Transformative education helps us understand the possibilities for different visions of our society and *modus operandi*. That is, away from consumerism and a mentality of crass toss-it-away frivolity and towards an accountability to this place we inhabit and the other lives with whom we share it. Critical education helps us highlight the tensions modern society has placed upon both human and natural worlds, and gives us the framework to examine them towards constructive, positive and life-nourishing ends. Finally, in appreciating place we help teachers and students both to work to protect place, perhaps even allowing place to become our mentor. This chapter, in exploring the academic roots of this project must keep in mind the driving questions of this dissertation:

· *What influence can a composting and gardening project have on a school community's curriculum, both in the classroom and outside of it?*

Could the St. Bonaventure's College composting and gardening project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?

2.1 Sacredness

God is food, and we recognize Her story when we work the land, understand its limits and potentials, reap the bounty of the harvest and reinvest compost to nourish and replenish what we have taken. This is the Christian agrarian celebration of communion we seek through our project, heralded in Deuteronomy 8: 8-9,

A land of wheat and barley, vines,

fig trees and pomegranates,

A land of olives and honey;

A land wherein thou shalt eat bread without scarceness.

Reading that passage today I do not shrink from it. I might have as a younger man. Impatient with the church and Bible and my growing suspicion that the church elders harkened from the age of Moses I turned my back on religion. There was nothing there for me. With university came an affirmation that religion was a relic of superstitions of old. For Thomas Berry, Catholic priest of the Passionist Order, historian and ecologist, my attitude, mirroring a societal disdain for the wonders of the divine cloaked in the vernacular garb of scientific objectivism, was the embodiment of

“our secular, rational, industrial society, with its amazing scientific insight and technological skills, which has established the first radically anthropocentric society and has thereby broke the primary law of the

universe, the law that every component member of the universe should be integral with every other member..." (1988, p.202).

Yet in my haste to remove the stain of religion from my person I failed to critique my own naivety. My dismissal constituted, "an ignorance that invalidated" my opinion. Simply, according to Wendell Berry I didn't know Christianity or the Bible (2002, p.306). The lack in my life went unchecked until, by chance, I got a job interview and then a job offer at St. Bonaventure's College. Albeit, with a caveat.

"You're a strong candidate and your personal philosophy will fit well within the Jesuit tradition. But your religious direction is weak," the principal informed me. Was I willing to address this?

I said yes with barely a hesitation. I didn't realize the weight of what I'd been charged with. But through the garden and compost project I came to find spiritual resonance to what had long been a personal suspicion from my experiences as a treeplanter in the great felled forests of coastal British Columbia and boreal Alberta, as a kayak guide on Passamaquoddy Bay, a trail runner and hiker: that in reaching out to the natural world we are opened to its manifold splendours and mysteries, aware and present. This awareness becomes a "planetary consciousness which will locate us within the creative processes of the unfolding universe story" (O'Sullivan, 1999, p.180). This consciousness allows us to see the intricate connections that the grand narrative/ cosmological story/ divine has with the world, which in the garden and compost project manifested itself as the profoundly simple task of bridging life over into death and back again. Such a celebration is summed up in the last wishes of Carr Kaoru Suzuki that, in

death, "I will return to nature where I came from. I will be part of the fish, the trees, the birds - that's my reincarnation" (Suzuki, McConnell, 2002, p.198). This is communion, which Thomas Berry described as "each member of the universe community is bonded together with every other member of the community. The entire universe is genetically related... emerges by an unbroken sequence from the same physical-spiritual source..." (Dalton, 1999, p.44). Thus, in death, Suzuki sought to return to that which had sustained him throughout life, to sustain in return. This is a recognition of the unending circle of life - of communion. Herein is the definition of communion this dissertation employs.

2.1.1 Moving past the Cenozoic to the Ecozoic

Too easily, perhaps, Christianity has turned its back upon the continuity of life. The power of the creation story has been replaced by, "... a dominant redemption mystique" (Berry, 1988, p.129). Christianity has moved away from the story of Adam and Eve, where life began and carried with it the promise of working towards heaven on earth. It has oriented itself towards the promise of heaven, away from the pains and trials of earth, through Jesus Christ's sacrifice of himself. The latter story cares little for the natural, physical world. It is instead obsessed by the desire to attain heavenly glories. Both Thomas and Wendell Berry argue that Christianity was born a religion of agrarians and thus was founded as a religion of humanity's work with creation. With such an understanding of the world and our place in it come responsibilities: "If the earth is the Lord's and we are his stewards, then obviously some livelihoods are right and some are not" posits Wendell Berry (2002, p.299). Right professions are those that embrace the possibilities of the "Ecozoic", which find resonance in life sustaining and nourishing occupations. This demarcates our present embrace of the "terminal Cenozoic" wherein

human progress and profit are celebrated over life (O'Sullivan, 2002, p.4). Understanding the myriad connections embedded in the Ecozoic's celebration of life between living beings universally demands an immersion in the "spiritual dimension of our world and universe" - admittedly not part of contemporary education. Nevertheless, O'Sullivan contends that "our first and foremost task is to take hold of our spiritual destiny..." (2002, p.10) and to bring students and schools into the realm of the spiritual wherein we may find our purpose here on earth.

Craig Sorley, founder of Farming God's Way in Kenya, has taken on just such a spiritual undertaking. Working in a land marked heavily by a shift to industrial farming, motivated to combat climate change through the prism of Christian teachings, he faced resistance from local farmers already beholden to hybrid seed manufacturers. These firms had promised larger crop yields but at a significant financial investment from farmers already working on the fiscal edge of survival. What did the Bible and God have to do with farming? they demanded of Sorley. How could the Bible help them pay the bills and keep their soil fertile? Sorley persevered because "farming God's Way is based on science, and it makes sense for economic reasons... when you add the biblical and moral mandate of good stewardship to the economic interest then there's a good chance of getting people to give it a try." Sorley's conviction comes from Genesis 2:15, "The Lord God took the man and put him in the Garden of Eden to work it and care of it." In essence, heaven is here on earth and we are proof of the creation mystique. Sorley's work with Farming God's Way, wherein crop rotation, no tillage or ploughing and therefore minimal soil disturbance and a permanent layer of organic mulch derived from dead plants help foster a diversity of crops, have helped raise yields for small land-holding

farmers. There is an intimate connection to the world herein, a tangible effort to not waste, to not alter but work within the limits and rhythms of the local bioregion. That is the essence of Christian stewardship (Rice, 2009, Paragraph 20).

The term stewardship is not without controversy however. It marks for some a delineating point between the human and natural communities, a celebration of the former over the latter. John Hart contends that "stewardship retains a hierarchal structure.... whereby humans are closer to God and serve as a bridge between God and nature." This only heightens humanity's hubris over nature, muddles our ability to find or see "interrelatedness with creation". Hart suggests that the word *relation* replace stewardship, for it is in relation where "an attitude of reciprocal responsibility for Earth, Earth's places in a context of human species engagement with and interdependence among other Earth beings" is fostered (2006, p.120). Thus, nature mediates God to humans. Hart further identifies the Christian tradition of the redemptive mystique in our treatment of Earth as nothing more than a repository of materials provided solely for human benefit (2006, p.121). If stewardship is a celebration of death then we miss communion as a celebration "of interconnections within the components of the universe evolved through mating patterns, symbiosis, predator-prey relationships and the functioning of ecosystems". Thomas Berry posited that communion, far from being an unscientific relic, welcomed and celebrated the totality of life's benevolence as understood, yet still mysterious (Dalton, 1999, p.131). Communion here means embracing the lessons nature has been trying to teach us all along.

"The presence of His spirit in us is our wildness, our oneness with the wildness of Creation," Wendell Berry suggests in his essay *Christianity and the Survival of Creation*.

The subjugation of nature to human endeavours , where anthropocentric ends win out closes off not only nature but sacredness from our experience. We need to remember “the greater and still continuing miracle by which water (with soil and sunlight) is turned into grapes” (2002, p.311). In recognizing this miracle Wendell Berry notes it “implies limitations on the scale of technology, architecture and land holdings” that would destroy or harm the wildness of Creation (2002, p.299). When we are within a relationship with our surrounding world, when we listen to it and understand its textures, its contours we find pause against the relentless push for more which the globalization story so glibly calls for. We see the possibility of embracing the natural, finding merit in the apple tree for example, which nourishes the spirit as well as the body. Whether we use the term stewardship or relation we must recognize our responsibility towards the world around us. Such recognition comes from working within the context of place, in critically examining ones situationality and seeking redress from the oppression of the present day narrative towards transformative ends. An awareness and appreciation of sacredness allows us to fully experience all of these.

Such lessons are not as simple as tethering an individual to a place or community. Instead, sacredness helps bring many individuals, with divergent aims, interests and goals together towards common ends. As a new teacher at a recently amalgamated school, Anne Baker found that the best way to join disheartened, apathetic and even confrontational school communities was through spirituality fostered by connections to one another (2008, p.104). While sacredness has the power to join differing, even warring groups, it can often feel distantly elusive. “I feel that the landscape of food, culture and community are completely tied together, but in our society we’ve completely

separated them... I just feel that we've to somehow get people to treasure what is real, particularly in food," Gerard Bentryn, a Polish-American organic vintner, argued in Patrician Kliendienst's *The Earth Knows My Name* (2006, p.101). Connection to our food comes from knowledge gleaned from experience and failures with the land and the many variables of nature. In essence, this is not semantics but communion, a celebration of the creation mystique.

This brings us back to St. Bonaventure's College, a school whose pedagogical stance is steeped in the Ignatian tradition which asks that we experience, then reflect before finding a new direction while maintaining a helping hand to one's fellow woman and man. In celebrating the manifold variations of life we celebrate this, the creed St. Ignatius of Loyola, founder of the Society of Jesus, to "find God in all things." Sacredness recognizes that by working with the land, in gaining fresh, local produce for those who can least afford it we are in active opposition to the brash wave of modern thought lashed forward by the whistling wind of Progress which calls for profit over people, celebrates the human over the natural world. Standing as a rocky sentinel against this onslaught, Ignatian pedagogy recognizes the realities and drives of our globalized times. Sacredness helps us recognize our collective humanity, our similarities over our differences within a wider biotic context. The example of the garden and compost program is one of striving forward for mutual benefit - spiritual and physical, plant, animal and human.

2.2 Transformative Education

"We have forgotten that our minds are shaped by the bodily experience of being in the world..."

Robert MacFarlane (2008, p.203)

Edmund O'Sullivan identifies three mechanisms of interaction with the modern story of globalization in his seminal work, *Transformative Learning*, for education and society: survival, critique and finally, creation of a new, transformed vision and learning possibilities. In the first instance we face, "the shipwreck of the idea and practices of the grand society" wherein we recognize that the Western, market-oriented ideals of modernity, with ever more poor at the bottom of the socio-economic ladder and a narrowing window of ever-greater affluence at the top, is oppressive to the well-being of society as a whole. This oppression has been brought on by a global economy whose appetite for resources dwarfs anything previously seen (1999, p.22). Such recognition brings with it responsibility to the educator. "The crucial task of the educator will be to develop an awareness that sees through the logic of destructive globalization... Three major tasks confront the educator in survival mode. The first is coming out of denial, the second is dealing with despair and the third is dealing with loss and grief" (1999, p.33). In his 2002 essay *The Project and Vision of Transformative Education* O'Sullivan argues that "denial is a defence mechanism" to counterbalance the deep ecological and economic schisms of our times. Despair is brought on by asking questions which result in an "understanding that conventional educational institutions are embedded in the problematic nature of our culture's dominant values" (1999, p.36).

2.2.1 Survival, critique and creation within the garden.

In coming to grips with the absence of a more progressive, holistic educational framework the garden and compost project survives because it helps us redevelop deep, nourishing relationships with the world around us as well as other community members. Deeply fracturing to societal well-being has been the move away from community life, "at all levels of involvement" as modern society has accepted the mantra of globalization. This has compounded any will to be part of the public sphere (O'Sullivan, 1999, p.26). In highlighting the garden and compost program we see the problem clearly. We have let profit margins become our *raison d'être* as a society. The logic of money over people has allowed companies to parade an arsenal of chemical poisons masquerading as agricultural improvements in the form of pesticides, herbicides and fungicides, not to mention synthetic fertilizers to nourish the plants. Such improvements cost a lot of money. Further, any benefits derived are fleeting. *Seeds of Change*, a film about canola farmers on the Canadian prairies documents how Monsanto seeds, immune to the pesticide and herbicide *Round Up Ready* but rendered sexless and therefore incapable of reproducing beyond a single planting has pushed already cash-strapped farmers to the brink of financial ruin, and often beyond. But it has marked a financial boon to the company as farmers must return, year after year, to buy seeds and *Round Up Ready* pesticides (McLachlan, 2005). "No farmer would want to harm the environment, but the financial advantage engineered crops might offer is ultimately more important" (Boyen, 2001, p.121). This is the real point. Farmers have to make a profit because their profession has been reduced to its monetary worth. All other considerations- environmental, health-benefits, sacredness- are at best secondary.

The St. Bonaventure's College garden and compost project can be seen as a means of public community access. Within such an understanding are we learning about the wider biotic life communities of St. John's, Newfoundland, the history of growing vegetables locally as opposed to our present day reliance on produce shipped in from thousands of kilometres away. With knowledge can come despair. We might well ask why society hasn't made fresh, local, affordable food a priority for everyone. It's more nutritious, provides physical well-being for those who plant, weed, water and harvest it. Educationally we might bemoan that we do not engage with food security directly, that we have outsourced it to the cheapest provider. Which is why we get lettuce from Arizona and California when Newfoundland is capable of growing nutritious lettuce, albeit within a limited timeline.

As we scratch our heads at such seeming idiocy despair gives way to grief and loss. The rapid breaking up and allotment of Newfoundland farms, turned over into building lots or consolidated into single-purpose farms (Murray, 2002, p.263) is a symptom of our collective loss - of physical farms but also attitude. We as a society have decided to value money, and wonder why we cannot make places, culture and history relevant. The necessity of diversity, ecological and economical in nature is also lost. In gardening and composting students and teachers can find resonance. There is a historical continuity between what we are doing and what generations of Newfoundlanders had to do in order to survive the caloric variables of a long winter on an island cast in the North Atlantic Ocean. There are community connections with groups like FEAST, Newfoundland Food Security and The Organic Farm. The program holds all that within it, showing another way forward which embraces diversity not only in the garden, but in

the manner we approach society itself. The task as an educator is not to become bogged down in despair and grief. Instead, one must always be ready to point out where opportunities, diversity and hope exist.

"The fundamental educational task of our times is to make the choice for a sustainable global planetary habitat", charges O'Sullivan (1999, p.45). This is a critique of the manner that contemporary education, and society, operates within. "At this historical moment, almost all educational institutions are geared towards teaching the skills necessary for dealing with the needs of the consumer-industrial phase of the terminal Cenozoic period" (1999, p.47). The garden and compost program embraces the Ecozoic, a clear and definitive break from the consumer-industrial society it operates within. Our project seeks to sustain life on earth rather than destroy it. The consumer-industrial phase of the terminal Cenozoic, that is contemporary society, demands more and more resources to be extracted to produce products which are designed to be tossed away, replaced with new ones. This is an affront to nature which recycles everything.

Our program was originally conceived to lessen our ecological impact as a school community. It has provided students with opportunities to see and understand the world holistically through hands-on learning. This learning compliments, rather than detracts from, the mandated provincial curriculum (as Chapter Five shows). "Holistic educators attempt to root education in an ethical framework that goes beyond the broken surface of our lives today to a hidden wholeness...where the intellect and spirit are integral parts of one another" (O'Sullivan, 1999, p.64). In helping create this program I have witnessed students make leaps of intuition and sudden knowledge, moments of genuine learning, mud-splattered and with spade in hand, that brings a smile to my face. There is joy in

such moments, when the knowledge is as fresh as a carrot newly plucked from the soil. It is a moment of such profound clarity where before everything had been muddled that one can see myriad possibilities dancing, tantalizingly, near, tangibly close. In creating this project we were venturing into the unknown. We had no idea if anyone else was doing anything like what we were undertaking. There was fear, more of rejection than anything else. But mostly there was excitement of the possibility, which bubbled just below the surface and kept the momentum rolling through the seemingly endless meetings, the long, dreary months of January and February. Even better, this excitement was tangible for teachers and students both. Partly this is because "in a world of vast diversity... modern humans find themselves shut up in a world of egocentrism and autism, incapable of any deep or sustained contact with the world outside the self" (O'Sullivan, 1999, p.193).

We've lost contact with the natural world as we celebrate human achievement alone, without recognizing the value of what the world has achieved and created over literally billions of years (Berry, 1988, p.134). This muddies the picture, allowing us to ignore issues, which are the result of all our attendant successes, that press increasingly upon our peripheral vision - climate change, soil erosion, animal extinction. These threaten the beauty, if not the very vitality of earth. Providing such opportunities of experience to actively engage with the world, guiding students towards understanding is the educators job. Everything is "woven into a multi-layered, multi-dimensional web of interaction and significance" and it is the educators job to help students see, touch, hear, taste, feel and thus understand this totality (O'Sullivan, 1999, p.64).

Clayton Brascoupe argues that for those who immerse themselves in a relationship of give and take with the land, as farmers do, "the land begins to speak to

them, the plants begin to speak to them. And they [farmers] begin to listen." This is how the land, the soil which provides became Mother Earth, imparting stories onto her children that they might be sustained (Klindienst, 2006, p.18). Seeing the land as provider and instructor we should place our scholastic curriculums within the geographical, spiritual and sustaining context of our inhabited bio-regions. O'Sullivan furthers that through the action of understanding creation a new *modus operandi* in education and society becomes apparent which recognizes and treasures the interrelationships of all life. We must recognize and be accountable for our responsibilities to the problems of the Earth. We must recognize all life and see their value. This is "the fundamental educational commitment for our time" (1999, p.222).

In taking on such a challenge as educators, David Selby asks that we become closer to the meaning of individual, that is a "person undivided from the whole" (2002, p.83). Herein is it possible to find "a radical interconnectedness that revives mystery, a sense of the ineffable, the unknowable" (2002, p.87). This is an important point. Much has been made of our ability to discern the varied components of the world. But such knowledge destroys wonder and mystery, gives credence to the humanist belief that we are capable of anything through reason and/or the influence of facts and misses the whole. We "cannot teach a better way to live. That must be born from inside our own convictions. And that birth may have to be a painful one..." (2002, p.88) given the course of contemporary western society and the need for a transformative vision.

2.3 Critical Pedagogy

"Love forces us to challenge ourselves in building community..."

The Brazilian educational philosopher Paulo Freire counselled that effective teaching comes through the use of *praxis*, which demands action brought out from reflection. Through *praxis* can we see the oppressive state of the world, and work to make changes for the better. Our program is using *praxis* by sowing seeds, watering them, weeding, harvesting and folding compost back into the soil to nourish it anew. These actions alone compound into activism. Our actions were informed from the experiences, and reflection upon those experiences, of how we might grow food for those people least able to afford fresh vegetables. We found a state of injustice that hasn't been meaningfully addressed and have sought to provide a solution. Further, we hope to bring to students their right to know and name their world. By working on the gardens of our program, by composting organic wastes back into soil, they come to know this place a little better and appreciate it and understand it more. Their sense of *terro*, of nervous awe of what this land might mean for them and their families, comes from such experiences.

C.A. Bowers contends that Freire didn't go far enough in his critique of the oppression in the world. Bowers' contention is that Freire's approach relies upon critical dialogue alone to foster change. In so doing Freire becomes complicit in the oppression of those he ostensibly sought to help. Bowers argues that while Freire convincingly argued against the machinations of the modern industrial culture, which focuses on a linear *modus operandi* of resource acquisition and profit-making, his own solution was itself linear and progressive. That is, he was still speaking of change within the prism of individualized Western education. Thus, Freire's argument to end oppression is firmly entrenched in the middle-class dominator culture. By using the commons, the historical

meeting point of the human and natural world, as the basis of our educational system we, "enhance local culture by default". Learners and teachers are then anchored to a local area. This is, "a form of resistance to the globalization of industrial culture and contributes to the revitalization of the intergenerational knowledge that empowers people" (2006, p.156). Herein we find a multitude of responses to the oppression in contemporary society, including educational. There is resonance and importance in the knowledge of noncommodified traditions. Such traditions, in a St. John's, Newfoundland context, might include picking berries during September month when the blueberries are at their sweetest and when the partridgeberries are coming in. It might also include the manifold variables of fishing. And they include the laying in of a potato garden to see one through the hard winter months.

As they relate to the garden and compost project, both Freire's *praxis* and Bowers' promotion of the commons help us see that our society suffers from a malady of spirit. We are besieged by the esprit of globalization - profit. This lonely, linear goal does not contribute to the well-being of our society. Through *praxis*, or experience, reflection and action in education can we recognize the oppression we languish under. "Education as the exercise of domination stimulates the credulity of students, with the ideological intent of indoctrinating them to adapt to the world of oppression". By constantly experiencing, reflecting before acting anew teacher and student engage in a dialogue with the situation they seek to change (Freire, 1973, p.88). In the commons teacher and student are thrust into "an ongoing relationship between cultural practices that characterize daily life and the natural systems that make life possible". Ecosystems themselves become the curriculum and instructors, and we learn to see the problems of a linear ideology grafted

onto the complexity and diversity of the world (Bowers, 2006, p.65). Through praxis and the commons we can critique the *status quo* and find alternative ways to engage with the world. Within our program we connect youth to community partners and elders like Mark Wilson and Mike and Melba Rabinowitz, which strengthens community bonds even as it leads to self-reliance and weans us from the teat of industrial agriculture. This intergenerational knowledge becomes an understanding, a relationship, between seeds, soil and the nourishment of our own bodies and the world around us (Bowers, 2006, p.91).

2.3.1 Praxis: Examining Paulo Freire

Paulo Freire's work was guided by a profound sense of injustice at the dominator culture, and a love for the world that propelled a critical optimism wherein change was possible. "Men educate each other through the mediation of the world... each man says his own word to name the world" (1973, p.79). In coming to understand the world, through readings and lessons but also experiences, we achieve moments of clarity. Suddenly the water clears and we can see with purpose the connections that drive life forward. Today we refer to such connections with now familiar catch words which have taken on an almost clichéd veneer - diversity, sustainability, green. These are not an exclusive vernacular. They do not include everyone's experiences and understandings of the world and its many connections within them. Diversity for an organic farmer might mean a mixture of crops that nourish and aid one another. For a young child diversity might mean a puddle to explore, spiders to gaze in awe at and flowers to smell. It is the same word, but carries with it very different mediations of the experienced world. However, as Freire noted, the western world, also known as the dominator culture, offers

only a linear model of achievement, pitting the oppressed against the oppressors and vice versa. Diversity in this light is used only insofar as it helps attain profit. Oppression happens because we are not allowed to have other understandings of words like diversity. Only the definition which allows for the continuation of the *status quo* model, for economic profit but not necessarily ecological balance, is allowed to be taught. This definition "absorbs those within it and thereby acts to submerge men's [sic] consciousness" (1973, p.79).

For example, industrial agricultural practice has embraced the mantra that bigger is better. The film *Food Inc.* shows how the rich farmlands of the American Midwest, once home to a multitude of mixed farms where vegetables like potatoes, corn, tomatoes, carrots and cabbage, fruits like apples, peaches and cherries and animals such as pigs, cows and chickens were raised and reared, have been condensed and downsized into a few crop-specific farms. Specifically, such farms grow corn and soya because this is what the market dictates (Kenner, 2009). Yet, to be sustainable, agriculture must embrace diversity, become part of a living ecology (Myers, 2005, p.83). Our society's reliance on a few crops, designed to garner the maximum financial return, means a dependence on chemically derived fertilizers, of plants sprayed with a host of pesticides, insecticides and herbicides to keep competitors at bay, to insure a good crop. But in such crops "there is an increase in the water, sugar and protein content of the plants' cells, and a decrease in the cell wall thickness. In other words, the plants become obese and frail. As a result it is much easier for sucking insects to penetrate the cell walls..." (2005, p.85). It's a catch-22 for farmers who don't wish to harm their environment but have to make a living. By specializing in one crop, grown with the latest technology, farmers become more and

more dependent upon the industrial machinations of agriculture. The multitude of products designed to make farming easier eat up instead increasing amount of time, financial and community/ spiritual resources.

"The more the farmer increases the scale of his operation, the more his body and spirit are dissipated and the further he falls away from a spiritually satisfying life," noted Masanobu Fukuoka in 1978. While small-scale farming appears primitive, it affords the farmer time to contemplate, to know the land and develop traditions which work in harmony with the land, even offering the opportunity to pen a few *haiku* in recognition of the fulfilment the farmer achieves through harmony between work and play, nature and human needs, in life (Fukuoka, 1978, p.111). However, even in Newfoundland and Labrador the attitude of bigger is better has taken hold. Hilda Chaulk Murray, in *Cows Don't Know It's Sunday*, an examination of farming life in and around St. John's, notes that, "because of the shortage of suitable farmland, farm size tends to remain constant. There is no room for expansion" (2002, 263). At least, not of the kind that would make Newfoundland agriculture competitive. Therefore, Newfoundland ships in potatoes, carrots, apples, turnips and lettuce - all of which grow very well here. This is to accept the *status quo* system as the endpoint for Newfoundland farming. There has been little critical examination of either industrial agriculture, or of the society that condones it here in Newfoundland.

The program brings all of these issues into sharper focus. In growing produce we are aware of the living ecology which surrounds us. We name this world, and make it part of our knowledge. We can see the imbalance of a world beholden to the market for its food, rather than to the people who grow it. When we grow lettuce using our compost and

soil, our labour, we highlight the expense of lettuce in the grocery store shipped in from California or Mexico. Our lettuce is not cheap, but it is more nutritious and tastes better because it is locally sourced. We pick it and within the hour have given it to the food bank. We can see the gratitude of people who wish to eat healthy food but cannot afford it.

Freire speaks of banking education (1973, p.65), and there are parallels to be made between opposing it and the our program. In banking education the teacher dispenses knowledge to those students who believe that what the teacher is saying is true. There is no room in this system for critical dialogue, or questioning of what the teacher says. The teacher knows, the students wait to learn. It is a relationship of linear oppression. In our society we have bought into the idea that food is running short, that we shall need a miracle to feed the multitudes. Companies which create hybrid seeds, which promote industrial agriculture, argue that industrial agriculture and its attendant side effect of monoculture crops which require intensive water and oil resources is the only way to stop us short of this calamity. Leaving aside the fact that we grow enough food for everyone on the globe today to eat their fill (Kauffman, 2009, p.33) we must recognize that those who would supposedly benefit from these new technologies can rarely afford the costs associated with them. The seeds require sprays. And the grain may not be altogether as healthy as an organically grown seed. Either growing such seeds alongside the host of sprays, or of the finished grain product (Pollan, 2008, p.125). In investing our trust in such companies we can see that we are complicit in a societal wide system of banking education. The companies dispense knowledge, via corporate advertising, for those who will listen. Silence, in this case, is commission. "Oppressors use myth and

magic to create a spell to subjugate the oppressed..." (Freire, 1973, p.44) which if not questioned cannot be broken. This, Freire contends, is an act of violence because the act of inquiring about the world, deriving meaning and knowledge from it has been inhibited, even closed off. This renders humans as objects, tied to the knowledge of others (1973, p.46). It is through dialogue, wherein we speak the word that a critical examination of our societal constructs, including education, is possible.

The job of the critical educator is to present an investigation of injustice "justified to the extent it returns to the people that which truly belongs to them." Knowledge of the world is theirs because they operate in the world. They breath its air, walk along the seashore, garden on a warming April morning, and so on. By questioning the dominator culture people undermine the power of the oppressor and find another way forward possible (Freire, 1973, p.53). Dialogue is fostered in the garden and compost program. Discussions of what plants are weeds, which are not dominate during weekly weeding sessions. So do we all come to see and understand what grows in the garden. Students often delight in finding insects, recoil from the sudden lurch of hidden spiders, peer excitedly into the hollowed out remnants of a kohlrabi bulb - recently the home of some hungry insect. The nature of organic farming is such that we operate within a living ecology of plants and insects. In dialogue we blur the line between teacher and student and come to knowledge as equals. This is action and reflection together: *praxis*.

2.3.2 The garden as the commons

C.A. Bowers charges that Freire's critique of society was good, in as far as it went, but limited to seeing, "change as linear and progressive" and that the only means of

opposition to the *status quo* was through critical inquiry (2006, p.25). In a truly critical examination of education and society we must embrace the historical reality of the commons "an ongoing relationship between cultural practices that characterize daily life and the natural systems that make life possible..." We find within this context that our surrounding flora and fauna have much to tell us about the limits of the environment, the possibilities for growth and interaction between our separate yet linked communities. Freire's linear opposition to our current culture isn't nuanced enough to adeptly tackle it. We require an openness to methods where humans aren't necessarily dictating the terms (2006, p.34). When laying in potatoes one tries to avoid the barren froscape of March month. We have to wait for the seasons to change, which, in Newfoundland can mean late June before warmer weather breaks through the prevailing sleet and fog that demarcates summer from winter. This means first revisiting the idea that change itself is progress. Secondly, we must rethink the notion that traditional cultures are irrelevant and/or backward.

In a Newfoundland context we return to Hilda Murray's comprehensive book on farming life in and around St. John's. She closed her book with the line "theirs [farmers and their families] was a good life, the stuff of wonderful memories" and thereby cut short any possibilities traditional farming might have for the present day (2002, p.264). Most outport Newfoundland families had a potato garden, a turnip bed interspersed with cabbages to see them through the coming leanness of winter before the spring melt opened the fishery anew. They were not huge endeavours but small scale gardens which nevertheless nourished families. These gardens were in turn revitalized by the compost and seaweed the families diligently folded back into the ground annually to return what

had been taken. By working a small plot of land intimately, with a diversity of plant crops, these gardeners and farmers were far more aware of both what they needed to survive the winter but also the needs of the soil. This was crucial knowledge. If the soil were depleted of nutrients they had to begin the labour intensive work of digging up a new garden. Today we understand that such small-scale gardens and farms are by far more efficient than industrial farms at providing more produce per hectare because they grow intensively with complimentary plants and animals (Myers, 2005, p.191).

This is what the St. Bonaventure's College garden and compost program provides. It is a continuation of the small scale gardening of yesteryear, albeit growing some new crops like kohlrabi and tomatoes. The soil is nourished by our composting program. The SBC garden and compost program recognizes natural limits as expressed by Bowers, "...when the values and practices of a culture exceed what can be sustained locally and it turns to exploiting the resources of others it may insure its survival over the short-term but upsets the commons leading to societal unrest, unemployment, local environments and intergenerational patterns disrupted..." (2006, p.36). In his essay *Freire's Contribution To The Crisis* Bowers contends that one of the means to address the emerging crisis' of climate change, soil erosion, finite water and oil supplies and the failure of our educational system is by "conserving the traditions of noncommodified knowledge, skills and relationships within minority cultures, as well as regenerating the more attenuated noncommodified traditions within the middle class" (2008, p.143). Community gardens, like our program, provide not only nourishing vegetables but also stronger intergenerational relationships. They depend on the knowledge of elders to help show the relation between seeds and soil, how to properly care of the soil. "The

intergenerational knowledge of how to grow and prepare food is one of the most promising expressions of resistance to the industrial market, as well as to the educational forces that are undermining... collective memories of how to sustain the commons" (Bowers, 2006, p.145). Truly critical education demands a societal shift which incorporates not only what is best for human society, but what will be best for life and indeed the world at large. After all, we depend on it for our very existence.

Yvon Chouinard, founder of Patagonia Inc., and itinerant climber, kayaker and surfer is someone who revels in being in the outdoors. He has witnessed, firsthand, the devastation we as a species have visited upon the world. In *Let My People Go Surfing* Chouinard contends "I'm a total pessimist [about the environmental shape of the world] because I see no will in society to do anything about the impending doom..." (2005, p.187). Noting that a bushel of topsoil is wasted to grow a bushel of corn on the modern farm tied to industrial means of production, he muses on his time in South Korea as a serviceman where "I saw farmers pouring night soil on rice paddies that had been in continuous use for three thousand years. Each generation of farmers assumed responsibility for leaving the land in better condition than when they took possession of it" (2005, p.191). Adrian Myers furthers that in Chinese society everything was recycled and composted, from human and animal wastes, to old clothes and straw, to restore and nourish the soils that in turn nourish the people (Myers, 2006, p.38). These were efforts to stay in communion with their surroundings. Knowledge was passed on from one generation to the next, always with a responsibility to the generation yet-to-come.

Wendell Berry charges that we must always remember tomorrow's generation, and the generation after that, in all our decisions. Particularly decisions as they relate to

the long term viability of our habitats. "The only neighbourly thing we can do it to preserve their inheritance; we must take care, among other things of the land, which is never a possession, but an inheritance of the living, as it will be to the unborn" (Berry, 2002, p.297). The resilience of such notions among noncommodified traditions is undercut by modern education contend Madhu Prakash and Gustavo Esteva. Through classroom education students miss out on the "rich and complex set of rites and myths that give life to traditional agriculture..." Schools espouse liberation from a life of such burden, buoyed by scientific reason (1999, p.9). But science is only the human rediscovery of what Earth created billions of years ago (Berry, 1988, p.71). Culture then, derived from the land cannot be condensed into a classroom. "We know that the lived pluriverse - of spoken vernacular tongues, of feasts and flavours, of suffering and celebrating - cannot be reduced to information. It is too rich, alive, and vibrant to be keyed into memory bits and bytes that run the educational industry today" (Prakash & Esteva, 1999, p.30). This is a profound critique of the modern educational system which bounds well beyond the scope of this dissertation, limited as it is *within* a school and classroom community. What is important here is the contention Prakash and Esteva lay out that only graduation with school knowledge can offer a good life. There are other ways forward which respect noncommodified knowledge and tradition which can be placed within the contemporary educational/curricular prism.

Bowers, in *The Culture of Denial* notes that there are strategies to bring traditional knowledge into schools. "As environmentalists become more aware of the connections between the high-status forms of knowledge being promoted by our educational institutions and the degradation of natural systems, their attention will turn increasingly

to the challenge of educational reform" (1997, p.199). There is merit in chemistry, literature and history on their own. But in trying to find inroads to a common ground where a sustainable society is the end result, it is education which must help rediscover our traditional limits of regional sustainability. To do so effectively we have to do a better job of bringing the different subjects together so that students, and teachers, can see such limits and work to help make society sustainable. This comes about through, "primary socialization involving a constant interplay between the explicit knowledge that is being introduced to students, and the background cultural understandings that may be taken for granted by the students..." (Bowers, 1997, p.203).

In providing fresh produce to persons caught on the lower rungs of the socio-economic ladder the garden and compost program at SBC confronts the very groundings of the modern agricultural-business enterprise, and thus promotes critical thinking and dialogue. By tackling our linear view of nature we take on our anthropocentric understanding of the world round us. Students can muse upon the root metaphors of "natural resource", "our world", "my property"... as the basis of high-status knowledge that underlies biotechnology and human history that is written from the perspective that does not consider the impact of human activity on the viability of natural systems..." (Bowers 1997, 205). Through the act of reforming education by tackling the very language and metaphors our culture has taken for granted we begin to question "ecologically destructive cultural patterns, and pass on to the next generation the forms of knowledge, values, and practices that contribute to a sustainable future" (1997, p.216).

2.3.3 Bringing together praxis and the commons

Paulo Freire felt that dialogue was essential to counter oppressing power (1973, p.20). Bowers notes that, "learning to tell stories and be an active participant... in growing and preparing food... knowing how to utilize local materials that take account of weather patterns are learned through mentoring", which is intergenerational teaching and learning, helps re-establish the commons and provide a viable alternative to the hegemony of globalization (2006, p.161). Contemporary education doesn't do a very good job of dialogue, as Freire envisioned it, or of critically examining stories. "...[M]uch of what is offered in schools is promptly forgotten... In part, this is because the required courses are not designed to broaden anyone's interests but to provide another highly specialized view of a different discipline." Students go through the motions of learning material for which they have little to no use, and therefore cannot see any reason to retain beyond the next test. Wouldn't it be better, charges Noddings, for students and teachers to be brought together to find meaningful points of access to course material that resonates with them. This puts a kink in the usual testing evaluation because, "we do not expect people to remember the sorts of facts that usually appear on tests... Then perhaps we should find a different way of evaluating" if meaningful learning and retention is what we're after (Noddings, 2006, p.23).

Through the compost and garden program another way forward is discernable, offering grounded lessons that speak to a sustainable future which can be linked to the curriculum (see Chapter Five). In this new way, Grade 4 students collect compost. Older students till the land, plant the seeds and seedlings, weed and water the land and harvest the produce. In the process we all learn that "perhaps our most precious and vital resource, both physical and spiritual is the common matter underfoot which we scarcely

even notice and sometimes call “dirt” but which is, in fact the mother-lode of terrestrial life and the purifying medium wherein wastes are decomposed and recycled, and productivity is regenerated” (Hill, 2002, p.82). Such a viewpoint comes from an educational dialogue between learners and teachers, the land and its community of life that examines critically and with love our world.

2.4 Place-Based Education

“...We must apprentice ourselves to an experience of place, if place is to become our teacher.”

Brian Wattchow (2007, p.236)

This section looks at the works of David Gruenewald, who writes on place-based education and its connections to critical education. Here we find an articulation of the importance place education can have for students in their continuing interactions with the world, to protect and preserve it for future generations. One of the active philosophies in this context, the Norwegian concept of *friluftsliv*, or Free Nature, is explored as to what it means for students to be immersed in place and find lessons apparent without the added baggage of attendant curricular objectives placed upon them. This is place-based education, through physical exertion, as an ends in and of itself. Michael Corbett's study of the school and lived communities strung along Digby Neck, on Nova Scotia's Fundy coastline, of their interactions with place and its meanings for education, serves as a strong counterweight to our project's move to bring place back into the curriculum. Corbett rightly recognizes that place carries with it cultural and historical connotations which can hold back people from the pull of contemporary society. However, in removing the significance of place through education we lose the value of being

grounded somewhere, in finding resonance in the world because we recognize our place in it. Herein lies the purpose of the garden and compost project: to help students locate what in this place is possible - for them and their inhabited community.

Intimate knowledge of places, their temperaments and possibilities, are known where people still live in working harmony with places. Fogo Island is just one such place. In the summer of 2007 my wife and I ventured to Fogo Island, slung nine rocky, shoal-strewn miles off the north-east coast of Newfoundland by the retreat of the last ice age. My wife was studying the island's cultural heritage. As part of her work we were invited to attend the annual mass on Little Fogo Island, a further six miles across from the community of Joe Batt's Arm. At one time a thriving community of four hundred, largely employed in the cod fishery, today it is home to a handful of summertime residents. It was a calm July day, the sun high in a washed out blue sky. We rode the six miles on waters barely rippled by any wind in a newly made trap-skiff, once the heart and soul of the Newfoundland inshore fishery. The refurbished Acadia engine pattered in fickle opposition to being worked so hard after thirty odd years of accumulating dust in a store, and consequently cut out frequently. A salty-lipped fisherman, shrouded in a perpetual cloud of cigarette smoke would squeeze his sinewy torso into the narrow confines of the engine hold to re-start the motor. In fits and starts we made our way across, the frequent breaks just another opportunity to enjoy the day, the sun strong across our faces as we bit into another slice of homemade partridgeberry lassie tart. The sermon was carried away on the wind and I was imagining my explorations of the island. The leisurely pace the trip over had lulled me into a pose of relaxed, come-what-may quality to the days trip. I made ready, after a lunch which included still more pieces of tart and sandwiches to explore the

island. I was aware that the men - largely ex-fishermen - had congregated, but I thought little of it.

We're going, I was told as I crested the first hill, my wife waving me back. Indeed, everyone seemed to be on the move. Picnic boxes were being hastily packed, carried down rickety, greying spruce-wood ladders to the temporary fleet of boats that were docked in the narrow confines of the harbour.

Surprised, I inquired why.

Storm's coming, came the answer. Though I squinted across the Labrador Sea I could see nothing more onerous than a few clouds scattered at the horizon line. The sun still shone bright in a brilliantly blue sky. But I was there at their behest so I got back into the boat. The wind had picked up some and we crested the waves with a heavy slap of the bow. Conversation was difficult over the roar of the engine, which held true on the return trip. Never once did we seem in any real danger and I wondered at the sudden urgency to leave. It was only after successfully navigating the tricky shoals that mark Joe Batt's harbour mouth that I glanced back at Little Fogo. It had disappeared. In its stead a black sky edging to a mauve-red at the waterline, rain lines visible, slanting nearly horizontal, shrouded the island. Lightning punctuated an already apocalyptic scene.

To know a place so well as to see a storm coming from the minutia of clues offered has stuck with me. Clearly, these were men who had generations of knowledge, as well as their own experiences, to build upon. We don't value such knowledge anymore as a society because there is no economic merit in it at first glance. But such knowledge fosters "a sense of cultural responsibility" to one's inhabited place. Therein we need to grapple, as Newfoundlanders and as Canadians with what our localities mean to us and

find through such discoveries, “forge more ethical, reparative attachments to place as a practice of renewal and hope” (Kelly, 2008, p. 85).

In becoming more comfortable with our localities hopefully we can find a way forward where we can restore places as meaningful interactions between human life and the natural world which surrounds us. But to do so we need to make place part of our scholastic mandate. This is not test scores necessarily that we are worried about, but the viability of our communities and places for tomorrow’s generation. “Place based educators do not dismiss the importance of content and skills, but argue that the study of places can help increase student engagement through multidisciplinary, experiential, and intergenerational learning that is not only relevant but potentially contributes to the well-being of community life.” We can only do this by regularly immersing ourselves, as educators and students in experiences of places wherein they convalesce into “a pedagogy that relates directly to student experiences of the world, and that improves the quality of life for people and communities” (Graenewald, 2003, p. 7).

As David Orr asks, if education does not explicitly promote the well-being of places, then what is education for (1992, p. 33)? “Western civilization erupted on the earth like a fever... that is now palpably evident in the rising temperature of the earth itself. A world that takes its environment seriously must come to terms with the roots of its problems, beginning with the place called home. This is not a simple-minded return to a mythical past but a patient and disciplined effort to learn, and in some ways, to relearn the arts of inhabitation... of rootedness in a particular locality” (1992, p. 170).

2.4.1 Locating the garden.

Place-based education is the cornerstone which buttresses the other themes examined in this dissertation. In understanding place and the role schools have within it we go a long way to refuting Robert MacFarlane's contention that we are unable to see beyond ourselves and our achievements. Instead we forge a new path which partners us to the philosophical framework of the "cosmological story" of O'Sullivan and Berry but contextualized within a local bioregion. Place-based education is important because it helps us as students and teachers to become aware of the world wherein we "must embrace the experience of being human in connection with the... world of nature" to insure that such a world exists for future generations (Gruenewald, 2003, p. 6).

Matt Dubel and David Sobel's essay *Place-Based Teacher Education* examines how place can enhance student *and* teacher understanding of the curriculum, and sharpen the teacher's appreciation of the imaginative possibilities inherent in place education. "Knowledge of the nearest things should be acquired first, then that of those further off," said Comenius, the seventeenth century Czech educator. This quote highlights the importance of connecting the curriculum to local places and ecologies, whether in social studies, science, literature or mathematics (see Chapter Four). This is important because tomorrow's educators need to, "connect the life of the school with community sustainability" (Dubel & Sobel, 2008, p. 317). How else can we find the link between the lack of farming in Newfoundland and the rising price of food in grocery stores which are part of the global food system? "The more that political, social, economic, educational and religious lives are shared in a particular place the greater the sense of community" (Theobald & Siskar, 2008, p. 254).

Place-based education does not, however, come without problems. Taken down marginal lengths, place can become insular and we become fearful of outsiders. The Holocaust and the Rwandan genocide rear up as the most horrifying distortions of place- and ethnicity-specific education, taken to fearful extremes. Such extreme examples are tempered by the knowledge that when place-based education is coupled with diversity and community education to embrace the pedagogical notion of education as socially transformative we help form, "better citizens with a strong sense of place and their role within it" (Theobald & Siskar, 2008, p. 260). This means that we have to make a holistic and inclusive sense of place part of the curriculum.

First, however, we must have students experience places. Robert Pyle contends in his essay *No Child Left Inside* we, "cannot hope children will learn to love places without learning to play and learn and name them". We are, in Western society generally and even in Newfoundland specifically, suffering through an extinction of experience where, "nature literacy as a fundamental educational objective has been sidelined if not forgotten" (2008, p. 125). Children and teachers must be allowed to develop a curriculum of the outdoors. This demands that we critically examine the notion that the outdoors is unsafe, that children are better operating in the virtual world because they are housed within a specific place and are therefore secure (Pyle, 2008, p. 136). The SBC garden and compost program in this light becomes a venue for exploring place through the act of working the land. The explorations may be a secondary, or primary, focus for the students. The point is that in allowing for such experiences students can achieve an understanding of the land, perhaps even *ivu*, which helps shape their appreciation and care of their habitat.

2.4.2 Gardening as *friluftsliv*

Here then is the place for *friluftsliv*, a Norwegian word translating roughly as Free Nature. In short it calls for people to interact with the world. Aage Jensen in *The Value and Necessity of Tumbling and Fumbling* reminisces about a childhood spent, “roving around in the woods, wandering in the mountains, skiing or skating, this was our way of living.” In such daily interactions with the wider world it is impossible not to glean some lessons, to “develop a unique awareness of nature that endows us with attitudes towards life and the norms of behaviour. This wisdom is normative and ‘tells’ us how to live with nature... It is more important today than ever before to give people (both young and old) the possibility to tumble and fumble through *friluftsliv* and through the provision of nature as a ‘learning room’” (2008, p.103). By interacting with the natural world we recognize its beauty and enter into a relationship that is physically, mentally, and spiritually fulfilling. Climbing a granite outpost in the Rockies, hiking up a wooded mountain or living outside, subject to the whims and vicissitudes of nature 200 days of the year (Chouinard, 2005, p. 37) are just some examples of fostered relationships with nature. In a November 2009 *DirtbagDiaries* podcast titled *The Young Conservationists* there is a celebration of interacting with the world as farmers, kayaker/activists and environmentally-conscious politicians. What is most poignant is the connection to place and the possibility for transformative ends that the protagonists find therein. The young farmer saw the possibility of starting a farm, but lacking cash, not as an obstacle but as an opportunity. Within months, having sold shares to a community-supported agriculture organic start-up farm she was providing vegetables to neighbours, family and friends-

new and old (Cahall, 2010, *dirthagdiaries.com*). Thus can a garden connect and sustain one to the natural world, be part of *friluftsliv*.

Place-education, counsels Brian Watchow might just be as simple as “being allowed to be in place”, to listen and see the possibilities and limits inherent (2007, p. 245). Molly Ames Baker asks that no matter what our activity in place that we be “actively engaged with the land because it becomes more integral to our experience. It is through purposeful consideration of our relationship to the land that we develop our own ever-evolving personal process of coming to know a place” (2007, p. 250). Bernard Schofield’s whimsical *A Miscellany of Garden Wisdom* represents then a collection of accumulated rhymes, songs and sayings that together represent millennia of human understanding of the soil, seeds and the complicated miracle of growth. “Harvest time’ has been rendered meaningless. It is our loss that the natural rhythm has been broken...” (1991, p. 43). Lost too is the understanding, born over time of vegetables and their affect/ effect in relation to the world around them, as summed up in this short poetic ditty: “Onion skins very thin, mild winters coming in. Onion skins very tough, coming winter very rough” (1991, p. 47). These phrases have become nothing more than quaint folklore, speaking to a past wildly out of touch with our present. When we engage actively with the land through the compost and garden program, by nourishing the soil, in planting crops weeding and harvesting we are embedding ourselves within place as a teacher and valued partner. We come to know it better, to value its company. This is the true meaning behind *friluftsliv*.

2.4.3 Listening to this place

Michael Corbett's book *Learning to Leave* is a provocative counter argument to the importance of place as contextualized in this dissertation. Focussed on the curriculum of schools and community's in Corbett's research into education and employment, mostly fishing, is centred in and around Digby Neck, Nova Scotia. Much like Fogo Island the women and men he interviewed grew up on the land, working the waters and gardening and hunting on the land. Tied for generations to this place, from whence they made their livelihood from the bounty of the seas, today education can 'liberate' them to the world at large. A similar situation prevails today on Fogo Island. Further, the industrialization of fishing, like farming, has lessened the need for bodies on boats. Jobs that were once assured are dictated by licences and a spot on a dwindling number of trawlers. This has led to a debate between educators and the people of this place as to what constitutes a necessary education, as per the following excerpt from Corbett's book taken from a parent-teacher discussion,

"Educator: These kids have got to have a good education so when they get out of here they have some choices...

Fisherman/ Parent: What me and Conrad (another fisherman sitting beside him) got is an education in life. We learned how to work and how to fish. We're educated people, it's just we're not educated in the eyes of the school..." (2007, p. 32).

In trying to survive the single-minded purpose of the global economy - profit - the communities of Digby Neck and the manner in which they interpret education, in school and in place, has changed. Large trawlers do the work of a score of smaller boats. People have been forced to move away to find work. Teachers themselves have been complicit in renegeing the importance of place to students, as this former student recalls,

"I remember some of the teachers talking about other places and making it sound terribly exciting and making us feel like Digby was the bottom of the barrel, your horrible little community where nothing important was going on. In grade twelve it was all geared to getting us to think about where we're going next year and what you're going to do next year. I wasn't going to be embarrassed. I wasn't going to just stay here. It wasn't a cool thing to do. If you wanted a career, a success story you had to leave..." (Corbett. 2007, p. 238).

Even for those who might wish to stay on there's the taint of having come short, of not reaching one's full potential, "I hope maybe one day I'll be able to come back and get work round Digby some day... I love it here, it's home. It's really confused for me right now 'cause I know if I come back home, like for good, that I've failed. I mean, there's nothing there for me, just family..." Yet even while education speaks of a better life the opportunities to access it are limited by the declining pool of wealth "required to make higher education a legitimate option..." (2007, p. 241).

This is the dichotomy of learning in such a setting, where the rhetoric of education sounds out as possibility when they can no longer, "trust the industrial-corporate fishery to sustain families into the future. It has always been virtuous to stay in school, but increasingly it is understood as necessary. [But] contrasted with local skills and intelligences formal education continued to be perceived and experienced by many rural youth as a set of largely irrelevant experiences..." (2007, p. 247). This occurs because there remains a cadre of fishermen who refuse to give in, who scrape by through the tightening economic noose of "consolidating access to fisheries resources in the hands

of a few elite fishermen and corporate interests... the threat of quotas, closures... fish stock collapse, corporate and government buy-outs, the loss of land to logging... They see themselves immersed in a political and ideological struggle for community survival that is much more difficult and complicated than the well-known struggle of getting a living from the sea" (2007, p. 249). This is a familiar story in Newfoundland as well, and parallels the story of farming, or rather the loss thereof, across much of the western world.

Barry Lopez recounts that, as he grows older he has begun to ponder the "moral relations with what we still differentiate as the, "natural world." Mostly, in my understanding, equity comes down to listening" (1999, p. 145). In his essay *Efferiearage* he speaks of Jack, an anagama kiln potter somewhere in the Coastal Range Mountains of Washington State, a man versed in the woods, the clay, indeed the geology of his locality. Someone who listened to the world, who brought it forward through his work. It is, "Jack's allegiance to his community, his regard for physical labour and his preoccupation with the process rather than the objects of life... which makes apparent that he works every idea he has through the filter of local materials, local geography and local people... makes clear that what he is looking for is a reintegration of 'man' and 'nature', something like the conformity between a river and its bed..." (1999, p. 173). In essence then Jack becomes for Lopez one of the, "local geniuses of American landscape... for whom geography thrives. They are the antithesis of geographical ignorance... Their knowledge of their place is intimate rather than encyclopaedic, human but not necessarily scholarly. It rings with the concrete details of experience" (1999, p. 133).

Robert Thayer argues that, "like the otter, humans bond with the world in part by making it fun - by challenging and seeking out the 'wild' within it and within us. If civilization has rendered the world gray, loud, and predictable, seeking out the land's quiet blue-and-green corners is most certainly a necessary return to our hunter-gatherer origins" (2003, p. 82). Through such interaction, or play, we garner the "experience with the nature of a place to belong to that place" (2003, p. 84). MacFarlane muses at the end of *The Wild Places* whether his favourite copse of beech wood in a park outside Cambridge will have died off as the global temperature continues to rise. "We are fallen in mostly broken pieces, I thought, but the wild can still return us to ourselves" (2008, p. 320). If we are willing to listen.

The garden and compost program cannot pretend to be the cure-all for the ailments of earth. They are many. We have only begun to build up our store of knowledge about this place. To discover the importance of saving seed, in folding compost back into the soil to insure, in part, that it is nourished for the coming year, in part in thanks for all it has given. We are recognizing new interconnections between ourselves and our surroundings which surprise and delight us: The tangled growth of a potato seed forgotten about in the midst of a radish patch. The slip of a worm from its earthen home into the wet soil whilst weeding. The soft buzz of a honey bee at a zucchini flower. We may be pushed away from place in our society, to accept the dogma of economics over ecology. But we can find ourselves here if we will stop and be part of this world, physical and tangible. The garden and compost project is a means of access to this world. One of many.

2.5 Summary

The compost and garden program at St. Bonaventure's College was not undertaken with this dissertation in mind. Yet the four academic themes of critical pedagogy, transformative education, place-based education and sacredness compliment the program, like a hand fitting into a glove. Further, they compliment each other. In critically understanding our world, framed within the locality of St. John's, Newfoundland, through the acts of gardening and composting we came to see the oppression our societal disregard for the environment, and for one another has wrought. This "dialogue" with obvious societal and environmental ills compelled us to, at the least, want to transform our present direction. Transformative education is connected to specific places, despite its overarching global goals. We are, as Sheila Giesbrecht notes, local animals. When asked to look geographically beyond what we can tangibly and realistically be part of, we are stretched beyond our capabilities (2008, p. 26). Hence the adage "act local, think global" which brings to mind the importance of place-based education. *Friðgislir* is merely another word for celebrating our relationship with place through communing, actively, within it. In order to combat the oppression of environmental apathy and disregard we must, as Robert Pyle encourages, let our children romp and explore nature (2008, p. 125). At the same time having students focused on the care and well being of plants, in nourishing the soil helps students find their place within a web of intergenerational knowledge (Bowers, 2006, p. 64). Our students worked with Mike and Melba Rabinowitz and Mark Wilson, who directed their agricultural education specific to the climactic and geographical vagaries of the Avalon Peninsula. It is this trust in children that they be allowed to explore and discover the wonders of the world around

them with a simultaneous focus to their responsibilities towards their localities which this program, in the end, entrusted onto our students. Indeed, to our teachers as well.

Understanding such responsibilities allows us to better understand stewardship as Wendell Berry described it, wherein we recognize the daily but nevertheless awesome miracle of water and sun becoming plants, and then grapes. Such miracles imply human regard for our surroundings, that we insure its well-being not only for future human generations, but animal and plant as well (2002, p. 299).

Chapter 3: Ethics and Methodology

On a wet, grey Saturday morning in late April David Martino and I, accompanied by fifteen students, stood in the soggy fields of The Organic Farm in Portugal Cove, run by Mike and Melba Rabinowitz. Mike talked in a plain, practiced fashion, as though he'd done this many times before. Which he has, of course. Dressed in a threadbare wool sweater pulled over an untucked flannel shirt, brown cords worn thin in the knees and bunched up around muddy rubber boots, he looked the part of the rumpled farmer. But his litany of grown vegetables suggested a keen appreciation of what this land was capable of: tomatoes, potatoes, onions, garlic, carrots, squash, pumpkins, herbs like parsley and oregano, chives and thyme, cucumber, lettuce in a multitude of varieties and colours, which spoke of a cornucopia of possibility on an island utilizing just three percent of its landmass for agriculture (Newfoundland and Labrador Food Security, 2009; foodsecuritynews.com). In the weeks that followed David and/or I, alongside two, three and oftentimes more students would venture out to The Organic Farm on Saturday mornings to transplant seedlings, lay out the plastic black barrier that retained soil heat and promoted seedling growth, replant onions and generally do anything else that needed to be done. Along the way we learned a lot about organic farming which helped us in developing our own garden project.

We had been very much like the multiple protagonists in Jim Fleischman's children's novella *Seafolk*. Set in a desolate urban corridor of Cleveland, Ohio, where a myriad of cultures and personalities bunch up against one another, it is the story of a young Vietnamese girl who, compelled to honour her late father's tradition of farming, wanders out in the dead of night to plant lima beans despite the freezing temperatures in a

garbage-strewn lot across from her apartment. That small gesture becomes a statement of possibilities for the larger community, cast adrift by hard economic times, often lost linguistically in a country that is becoming their own and who find in this one action of gardening the opportunity to simultaneously revive their culture, become meaningful contributors to society and feed their families. In short, the collected stories of the urban farmers in *Seedfolks* comprise a tale of community expressed through a garden which is at the heart of what this dissertation is driving at (1999). Furthermore, the stories made that place meaningful to them.

This dissertation makes use of three methods in exploring the garden and compost project at St. Bonaventure's College and the questions which ground it:

- *What influence can a composting and gardening project have on a school community's curriculum, both in the classroom and outside of it?*
- *Could the St. Bonaventure's College composting and gardening project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?*

Specifically the methods used are: (i) writing as a method; (ii) praxis in writing, and (iii) ethnographic storytelling. In using narrative writing as my method I, as the researcher and active instigator of this project, explore the meanings and possibilities derived from the project through writing which is accessible to academics, teachers and students all. The power of writing is that it can draw in readers, or scare them away, with the choices of style and vernacular. Writing and reading about our actions can be part of the reflective process that Paulo Freire called *praxis*. In writing of my own, as well as student experiences - a point to which I will return in ethical issues - I am using

memories of action and reflecting through my writing in what they may mean. In this way praxis is part of the method. This segues into ethnographic storytelling, wherein meanings drawn from experience are brought forth through my stories. In story we find common ground. All of us tell stories (Connelly & Clandin, 1999, p.135). Stories are, notes the Patagonia advertisement, "the fabric of our shared culture" (Cahall, 2009; dirthagdiaries.com), meaning that we can trace out common ideals and values within the stories we tell one another. Ethnographic writing is here understood within the definition provided by H.L. Goodall (2000): "creative narratives shaped out of a writer's personal experiences within a culture and addressed to academic and public audiences" (p. 9). Ethnographic storytelling allows my experiences of the garden and compost project to be presented in as accessible a manner as possible so that we all might find common ground in the shared fabric of human experiences. Finally, as in any research which involves student participation, there are ethical issues which must be explored. Of primary importance is the students' anonymity. As a small school operating within a relatively small city population there is a risk that students may identify themselves within the narrative of my shared stories of the project. However, no student is singled out. Instead, their voices are blurred behind grade levels and my own interpretations of meanings derived within the project. I would have preferred to have made the students more visible, but because of confidentiality issues, this was the best method available to present the story of this project and help make sense of it, and its place within the world. This chapter closes by looking at ethical issues in this program and specifically, this dissertation.

3.1 Writing as Method

"When we view writing as a method we experience 'language-in-use', how we 'word the world' into existence" (Richardson, 1999, p. 923). In doing so, we challenge an academic tradition embedded within, "mechanistic scientism" which renders a, "flotilla of qualitative writing that is simply not interesting to read because adherence to the model requires writers to silence their own voices and to view themselves as contaminants" to the presented truth. For the past two hundred years academics have responded with personal silence to the questions of, "How do we put ourselves in our own texts and with what consequences? How do we nurture our own individuality and at the same time claim to "know" something?" (Richardson, 1999, p. 925).

Maria Gonzalez asks that we move beyond the "lazy" acceptance of scientific objectivity as the sole means to understanding research and the world. There is historical baggage in such acceptance which needs to be unpacked. In brief, scientists, both physical and social, used to employ the language of poets. They added literary flourish to their findings and they were as celebrated within the reading populace as are today's novelists. However, when Galileo Galilei was tried and found, in the parlance of the Roman Catholic Church, "vehemently suspected of heresy" his written language changed. Gone was the literary nod in his findings towards fiction, dramatic form and autobiographical narrative. Anything which tied the person to the findings was removed. His wording became terse, distant and objective. In short, scientific research took on, "an epistemology of fear and suspicion" of how findings might be interpreted (2003, p. 79). Knowledge was powerful. By removing the person from this power scientists were able to squirm away from culpability with the findings. In accepting this doctrine as the only

method to present information so do we remove any vested interest and stories of participant researchers. In addressing this issue, I use writing itself as a means of inquiry wherein texts are made vital, can have an impact and, perhaps most importantly are accessible to a wide readership.

Such stories are rooted in places. It is often easiest for us to write of our known localities through our experiences thereof. "Localism allows students to explore their worlds through hands-on participatory learning experiences which build on core curricular areas..." (Giesbrecht, 2008, p.28). Through the narratives of sacredness, transformative education, critical pedagogy and place based education as they relate to this project I am utilizing stories, the written word, as the very means and methodology of academic inquiry. In presenting the story of our project I have not become an expert, *per se*, in the gardening history of St. John's, Newfoundland, nor can I speak to the experiences of fellow St. Bonaventure's College gardeners- students, teachers or parents- who may find in the project a completely different narrative. My written story, blending many narratives viewed through the prism of my experiences, "does not 'reflect' social reality, but produces meaning, creates social reality... [for] having a partial, local, historical knowledge is still knowing..." (Richardson, 1999, p. 928). In using writing as a means of understanding the impact of the project I embraced the idea that, "language is *not* the result of one's individuality; rather, language constructs the individual's subjectivity in ways that are historically and locally specific. What something means to individuals is dependent on the discourses available to them... The individual is both site and subject of these discursive struggles for identity and of remaking memory." [author emphasis] (Richardson, 1999, p. 929).

By writing about the project and in using my own voice I am tapping into a history which the reader can identify with. It may not be their history. Yet in making the project personal I am grounding it within a context they can relate to. We all understand the despair which comes with obstacles in our path, the grinding frustration of meetings which begin nowhere and meander elsewhere. While the happiness of planting vegetables, the travails of weeding and joys of harvesting may not be to everyone's taste, there is resonance in this emotion brought forward through writing of the project. Writing as method requires not that a lonely truth be written, but that I present as plainly as possible the full texture of the project for my audience, that they may experience within it the range of empathetic and emotive responses.

In telling this dissertation through a story, I am not claiming to have uncovered the truth. Rather, in the postmodernist tradition I have uncovered many truths without definite boundaries (Richardson, 1999, p. 924). As I present my findings through this story dissertation I produce the meaning held therein, help create social reality even while acknowledging its boundaries upon my writing. Laurel Richardson writes that meaning for an individual is born from the availability of discourses to them. By this she refers to stories, told from the vantage points of informants and academics both. From this synergy of stories comes an awareness of truths. With reflection and immersion into this new narrative comes an awareness and appreciation of the meanings housed therein. Thus, this project represents different things to different persons (1999, p. 925).

3.2 Praxis in Writing

Paulo Freire contends that when we speak the word we are naming the world. "For critical pedagogues, the 'texts' students and teachers should 'decode' are the images

of their own concrete, situated experiences with the world. According to Freire, 'reading the world always precedes reading the word, and reading the word implies continually reading the world'" (Gruenewald, 2003, p.5). This comes about, Freire contends, not by mere reflection on our place in this world, nor mere action to protect it. Rather, when we bring action together with reflection we achieve *praxis*. Therein students and teachers alike can perceive and analyze the reality of the situation they find themselves within and seek out new directions (Freire, 1973, p. 89).

This is embodied in Margery Wolf's work, *A Thrice Told Tale*. Her "ethnographic work represents [her] understanding of China as a result of conversations held and conversations overheard... [her] ethnographic responsibility included an effort to make sense of what [she] saw, or read- first to [herself] and then for [her] readers" (1992, p. 5). In this effort to present her experiences in a small Chinese village, looking back over a span of thirty years, Wolf employed three separate genres "describing in different ways what happened in the little village of Peihotien..." A fictional story, unanalyzed interview transcripts and an academic article convalesce into an analysis, albeit with "different perspectives, written in different styles, and with different 'outcomes'" of Wolf's experiences (1992, p. 7). The power of Wolf's analysis then isn't in its adherence to a rigid academic model. Rather, in forging a new way forward she seeks out the myriad truths that embody all stories. What is interesting is that within each story is a reflection of the true experience(s) of the narrator, which change depending upon when and why she is telling the story.

Truth, in H.L. Goodall's words, comes from story, which "critically extends how we think about and do the work of being scholars" (2003, p. 2). My story dissertation has

taken on my own biases. But it has also shown that within a compost and garden project are housed the opportunities to extend students' and teachers' understanding of place, the ability to critically examine the circumstance within which the garden project began. My experiences of the world, grounded within the garden and compost program at St. Bonaventure's College, help me articulate it with words. My actions of planting, watering, weeding and harvesting were reflected upon to become *praxis*. Therein do the meanings behind the stories present themselves.

Paulo Freire noted that as educators we often discourse in dead curriculums, preaching to students instead of engaging with them (1973, p. 48). Gonzalez argues that the same holds true for research. As a researcher, one must be comfortable in searching out the totality of lived experience to be a "sound vessel for speech" reflective of one's research participants. By definition this research should challenge (2003, p. 79). Students and teachers were able to perceive that the agricultural *status quo* in Newfoundland, which utilizes just three percent of the island's landmass for agricultural work, has left us in a quandary after holding and tasting produce from The Gathering Place Experimental Garden and The Organic Farm. In tasting what their surroundings could provide, students and teachers discerned the half-truth that Newfoundland's climate is too fickle, the soil too poor to carry out agriculture like Ontario, Manitoba or Saskatchewan's. "Newfoundlanders used to grow their own vegetables," a student participant in our project was later quoted in The Telegram as saying (Bartlett, 2008, Paragraph 6). Having broken the hold of the *status quo*, new possibilities were revealed. This dissertation about the St. Bonaventure's College compost and garden program can be seen as a statement against industrial farming and for small-scale agriculture. This statement has come only

after the trials and tribulations of experiencing two growing seasons, of reflecting upon our successes and failures and acting anew. In this way is this dissertation praxis through writing.

3.3 Ethnographic Storytelling

Margery Wolf notes that when human behaviour is under research the researcher must be prepared for "ambiguity, multiplicity, contradiction and instability" (1992, p. 8). For every summit of success, there is a corresponding valley bottom. This is as true in our program as it is in life in general. Both are tied intimately to the experience of the human condition. The ability to articulate the goals of our program to the school administration, to student participants and community partners constantly left us wrangling with the inherent contradictions of the human condition. Looking back I can see that such trials were necessary to the project. Michelle Fine notes that we live in a dichotomous society. We operate as societal vassals to the status quo and yet position ourselves as firmly oppositional to the status quo, often in the same conversation and/or action. This she calls a "consciousness of domination" where we resist the societal status quo through our stories, but reinforce it through our actions (Clair, 2003, p. 12). For example, while I might bemoan Dominion for driving down the price local Canadian farmers get for their produce and make a principled point of standing against them, by shopping at Sobeys for my groceries, I only serve to further undermine my principles. Canadian farmers operate on a precarious financial knife point. Perhaps I might be better served to shop at a farmer's market where the farmer keeps the dividend and I can be assured of the quality of the food, and make an important connection to the farmer her/ himself. One must be

constantly reviewing, critically, one's actions to maintain a resemblance between the story we want told of ourselves, and the Truths. Although I compost, make a point to eat lower on the food chain and make my own granola, my actions to temper my environmental footprint are swallowed up because I live and operate in a society that is running roughshod over the world's ecological balance and diversity. We need not look for such dramatic breaks for confirmation in ethnography. Rather, it attempts to create meaning through language wherein we can find resonance. In this way ethnographic storytelling can be a powerful counter force to globalization's hegemonic pull (Krizek, 2003, p. 148). Ethnography taps into perception and interpretation of the phenomenon occurring round us, to present the duality of human experience, of listening and speaking, perceiving and expressing, rationalizing and creating.

Storytelling is different from other forms of writing. It is not an argument, persuading readers to the validity of the author's argument. Nor is it description alone, providing information which details the project or task. Finally, it is not an exposition, explaining the meanings. Rather, through story the author invites "the audience into storied meanings" (Connelly & Clandinin, 1999, p. 139). The purpose of the presented stories of the project are to derive what effects and affects the project has had upon the school and classroom curriculum within St. Bonaventure's College itself, and what it may offer as an example to other schools and community groups seeking to initiate a similar project. The stories go a long way to showing the experience of students and teachers within this project. These "interpretive retellings" are valid because they are grounded within the questions asked in this dissertation. "Education and educational studies are a

form of experience. For us, narrative is the best way of representing and understanding experience" (Connelly & Clandinin, 2000, p. 18).

Our project has been, and continues no doubt to be an extracurricular event, a social justice project and an ecological opportunity to right some of the wrongs inflicted upon the natural world by humankind. I seek to present as many of the voices as I can in as accessible a manner as possible so that readers can discern for themselves the truths therein. In using writing as method, *praxis*, I come to ethnography wherein readers might find "the blood link to their own experiences, their own reading and talking, their own constructions of how persons and things become meaningful through everyday actions" (Goodall, 2000, p. 41). Ethnographic storytelling allowed me to use my own experiences, and that of the students as I perceived them. This led me not to The Truth, *per se*, but many truths embodied in these stories. From these came insights into the current makeup of our society educationally, culturally, politically and agriculturally. Robert Krizek notes that in mining the self we sift through the silt of accumulated debris of experiences to "elicit, witness, collect and ultimately represent" the stories which become apparent through research. Ethnographic storytelling, then, is a means to delve deeper into the human experience. It contextualizes the whole, in this case a compost and garden project, through personal experiences and allows "narrative and identities to bisect" (2003, p. 145).

3.4 Ethics

The students working on the garden and compost program cannot be named in this dissertation. However, they helped drive the project forward. Their energy and

excitement drew people towards this project and gave them excitement and energy. Yet their voices are muted beyond the broad generalization of 'students' or grade level. This is not to obscure their importance. Anonymity is a guarantee whilst working in the framework of an ethnographic narrative. With students below the age of consent I am ethically unable to name them (Connelly & Clandin, 2000, p. 175). My influence as teacher might override student concerns, disinterest or disengagement with the project. Opportunities to exert undue influence meant it would be better to house their voices within the collective of the project. For this reason no student is referenced by name, gender or physical characteristic. Instead, grade level suffices and retains the veracity of the larger story. Their insights and voices are crucial in explaining what, if any, impact the project had on the St. Bonaventure's College school community. The solution was to incorporate their stories into a text written in my voice. Herein did I seek to dissipate the tension between being clinically systematic and the desire, at the very heart of this dissertation, to hold onto the stories of student and teacher experiences (Jessop & Penny, 2009, p. 9).

This choice meant that I had to consider that student voices and stories were embedded within my own voice, my own stories. "Every text, every story, privileges someone's point of view" (Goodall, 2000, p. 160). In this situation I have utilized my own. Autobiographical stories are interpretations of a lived experience crafted to fit into a story with beginning, middle and end. However, I hope that the students' stories come through as well. These are different variations of a shared experience. "...Questions of ownership [of the stories] are not as important as are questions of responsibilities with whom we are in relation" note Connelly and Clandin (2000, p. 177). Attempting to

represent student experiences and voices while ensuring their anonymity is how I retain responsibility to my partners in this project. "The act of re-presenting the stories and voices of others is not a neutral exercise, happening as it does within the nexus of gender, race and class power relations. To exclude it... is to deny the overlapping, intersecting and sometimes competing cluster of relationships that are set up in an exploration which includes narrative and identity" (Jessop & Penny, 2009, p. 7). In exploring the garden and compost project the voices of all participants must be accounted for. Only then can I claim to have told the truthful story of the project.

3.5 Summary

It was not an easy process letting the voices of students, integral to the journey along which the garden and compost program at St. Bonaventure's College has undertaken, be funnelled through my own writing. It felt, at moments, disingenuous to present their contributions thusly. Yet, at the same time, their stories have been suffused into mine. Elements of their truths have been incorporated into my own story. Ethically, they cannot stand alone. But in using ethnographic storytelling, their presence has not been lost. Praxis in writing allowed the process of experience, reflection and action to come to the fore. This has been integral to the success not only of this dissertation, but also the program generally. In this way praxis compliments writing as a method, which demanded that I find my voice as I became, "both site and subject of these discursive struggles for identity and of remaking memory", crucial to the story of this program (Richardson, 1999, p. 929).

Chapter 4: The Story of the Garden Analyzed

As a recent university graduate in the summer of 2002 I went to Southern Ontario to work on a tobacco farm near Teeterville, Ontario as part of Frontier College's Labourer-Teacher program. The spring had been cold and windy, but it broke into humid warmth just as suddenly. With the change came a startling break from the enforced lethargy and the whole farm coiled into action. We planted field after field, working eighteen hour days, tractor lights guiding the way as day gave way to night. Just when we had most of the plants in the ground the forecast changed, calling for a late season frost. The farm coalesced into renewed activity, this time to protect the crops. We ran irrigation sprinklers into the fields to coat the new plants in water which, should the night dip to freezing, would encase the fledgling plants in ice and protect them from the worst of the bitter temperatures. Looking back I can see that here was *ivu* within a modern understanding. The farmer knew what the land was capable of, and knew too the damage frost would render onto the plants.

We didn't begin this project with a sense of *ivu*. We merely wanted to lessen our environmental impact as a school community. However, I think that a burgeoning sense of *ivu*, of understanding what this place was capable of and the ramifications it might hold within the curriculums of the school and wider community becomes apparent through the story of the garden and compost program at St. Bonaventure's College.

4.1 Beginnings at The Gathering Place

I knew Mark Wilson from a distance when we finally met in the autumn of 2008. Though he wasn't physically imposing, his force of character broke down barriers quickly. Gregarious and open, he showed us round the experimental farm at The Gathering Place located on the other side of the St. John's Basilica from St. Bonaventure's College. At one time it had been the female equivalent to SBC. Today, run under a branching partnership between The Sisters of Mercy and the Presentation Sisters, The Gathering Place's purpose is to help others. Under this large umbrella, organizations like the Sierra Club, Environment Newfoundland and Labrador, a soup kitchen and social activist agencies have all found a home. In the rolling, underused backyard of this converted school there was a small greenhouse, its plastic casing billowing and hollowing like a sail at the helm of a great storm, and three raised garden beds.

September had only just bled into October, and the following Saturday we would rake up the leaves in the beginning of the school's compost program. For now we were bundled up in fleece, shivering as the winds howled down from the north. Mark was at ease in dirt-encased work pants, still tanned from a summer of working outside. Ostensibly he was supposed to talk about composting. This was what we were going to do at St. Bonaventure's College's College, to turn compost into soil and reduce our carbon footprint in the process. Mark showed us the compost bins. Stuffed with carrot tops, over-ripened organics, egg shells and grass clippings, Mark assured us they'd become soil in a couple years. There was no unpleasant smell, though that might have

been just because of the wind. "What are you going to do with your compost?" he wondered.

This left us stumped. David and I had corralled four senior students into joining us that day. They shuffled their feet and buried their faces into the warm fleece necks of their jackets. Mark had a half-smile on his face as he waited.

"Well, you know," David began. "We've got some ideas. We're not really sure right now..."

But Mark was already expanding on his idea.

"Why not turn your compost into a garden. Look," and he pointed at the raised beds. "We grew enough lettuce in one of those beds to feed 800 people. Lettuce grows awesome here! We've got arugula—here, try some!"

For twenty minutes, maybe thirty, we were like puppets caught in Mark's verbal pirouette. He ushered us to the garden beds, brought us within the plastic folds of the greenhouse and all the while he serenaded us with how easily, cheaply even, everything could come together. We looked in on the tomatoes, felt and then tasted the arugula leaves, the beans and the snowpeas. It was impossible not to be caught up in his excitement. We would find that in part he was right, that garden beds are not expensive to make or maintain, and planting seeds isn't a labour intensive proposition. He did leave

out the part about finding a home for our garden and what a process that can be. For the moment, though, we were all of us enthralled

"And you can use the compost as your soil", he furthered, bringing us back to the *raison d'être* of our visit. By the end of our tour we were ready not just for a composting program but for a garden all our own. This was how we gained our first Teacher/ Partner on our journey towards becoming growers.

That first year was remarkable for the depths it plunged us all, students and teachers, into. The successes we managed to garner were taken one tenuous foothold at a time, inch by precarious inch until we'd won over the foreboding wall of administrative concerns- vandalism, student apathy, eyesore. We managed, within the short time after proposing to begin a compost program, to have it approved by the school administration by answering all their concerns. A short week after meeting with Mark at The Gathering Place we congregated on a crisp October Saturday morning, perhaps twenty-five students and teachers, to begin the composting project. Clouds skittered across the light blue sky, born away by winds streaking down from the north-east. We carried our instruments of learning for the day, rakes and shovels, a wheel-barrow with a slightly deflated tire, three cardboard boxes from which three plastic compost bins would emerge and compostable bags.

For several hours we worked, the wind sometimes carrying away our hard-earned piles of leaves across the soccer pitch. There was a festive mood to the day. This, after all was the beginning. We were starting something. Composting was the new deal at SBC. No longer would students or teachers throw away apple cores and banana peels, no more

barely gnawed on carrot sticks or slightly bruised grapes tossed haphazardly into the garbage. And in a year or two, we would have soil.

It was heady stuff to begin such a project. Better still to see so many students give up their Saturday morning to pitch in. They came from a wide spectrum of grade levels, seven up to twelve, in pairs and by themselves. Some left with a few raised blisters, their jeans dirtier than when they had arrived. We shared a few laughs, and closed the day by making towering posters proclaiming the benefits of composting, what could be composted and what couldn't. Some of the posters showed artistic promise. Others got by with a few scribbles, the essence of a message which read- only just- Compost!

As the morning gave way into afternoon I wandered behind the gym, where the three compost bins stood atop freshly broken up asphalt. Three proud sentinels against the bulwark of a toss-it-away, garbage culture. Compostable bags of red, yellow and brown leaves stood propped up against the chipped brick wall. These leaves would provide valuable nitrogen to our compost project. I smiled, sure that we had breached some great divide. From now on, people would act differently at SBC. Garbage was out. Composting was in.

Triumphant beginnings bled into the realities of incorporating such a project within a culture used to throwing away organic waste. Less than a month after we began our compost project at the school the custodian, afraid that the compost bins might become burning pyres with the approaching Guy Fawkes Night, told us that we had to move them. When this failed to prompt immediate action he sought out and convinced the school administration of the looming threat. The palpable fears of the school burning down required us to move the bins twice within a day, to a forgotten corner of the school.

There the bins languished in the shadows. They could not attract the eyes of would-be arsonists but they didn't receive any sunlight either. In the winter months the project, and compost, languished in a frozen state of inaction. Banana peels stuck to coffee grounds which were iced to browning leaves, all of which mirrored our attempts to garner traction with the school's administration to enlarge the scope of the project- a brownish goop of promises to look into it. At around the same time the compost bins in the cafeteria, staffroom and student lounge were also causing consternation. The custodial staff, teachers and even students saw them as the cause for the congregations of fruit flies, the sickly sweet smell of rot and the growing girth of the cafeteria rats. While David and I pointed out that both the flies and smell could be explained by the accumulation of rotting sandwiches and sticky soda-pop at the bottom of the school's recycling containers, that the school rats didn't attain such proportions on a diet rich in coffee grinds and mildewing lettuce leaves, we had to work hard to keep the program viable and fresh, to help the school community see the purpose of it.

This was helped by our exposure in the local media- a full-page spread in *The Telegram* (November 2008), a four minute interview on CBC's Radio Noon show (May 2009), another CBC segment on the afternoon show, an interview in *The Scope*, St. John's alternative newspaper (July 2009). But with the school administration busy with the day-to-day minutia of tackling student discipline issues, attracting new students to the school and retaining the ones already there, financial administration and a host of other issues which kept the school viable, we needed to find a vernacular into which they could find resonance for incorporating the program into the school more fully. During the autumn, winter and early spring of 2008-2009 our project languished beyond the pale of the school community, let alone subject curriculums, and thus embodied Robert Pyle's

contention in his essay *No Child Left Inside* that, "nature literacy as a fundamental educational objective has been sidelined if not forgotten" (2008, p.125). Children are no longer exploring their physical worlds, or when they do such explorations are heavily regulated and restricted within certain parameters. This makes them less relevant and less fun. Subsequently, students don't retain as much information from such experiences and their concern and care for the world is whittled away (Noddings, 2006, p.33). Quite simply many students, and for that matter teachers and custodians, couldn't see any purpose for composting because it wasn't part of their understanding of the world. Compost bins had become just another set of garbage containers. And garbage was thrown away.

Yet in throwing away garbage without understanding the implications therein environmentally, economically, socially- which this dissertation touches upon but does not go into in detail - we risk losing the opportunity to know our world, both in schools and outside them beyond a bland reading of textbooks or hands-off viewing of film. Both of which distance us from our surroundings, dampen the potential of *vu*. "We are the last generation that can experience true wilderness" of which there is less and less left in the world. "We need to protect these areas of unaltered wildness and diversity to have a baseline, so we never forget what the real world is like- in perfect balance, the way nature intended it to be. This is the model we need to keep in mind on our way to sustainability" (Chouinard, 2005, p.199).

This dissertation would be remiss in not pointing out that we in Newfoundland, whatever our roots, are firmly entrenched within a growing environmental disaster. The garden and compost program has the potential to help mitigate this disaster. Although limited in scope, it is the educational lessons of the project which can foster changed

attitudes and inspire new directions. By understanding the connections between composting and soil fertility and plant growth, which comes about by working intimately with the earth through gardening and composting we embrace the Ecozoic and move beyond the "terminal Cenozoic" (O'Sullivan, 1999, p.26).

We wanted to compost the organic wastes of the school, to plant a garden. Now, looking back I can see that we were bringing the totality of the life cycle- planting, growing, harvesting, composting- within the scope of the school community and curriculum. By embracing life we would celebrate the creation mystique which embraces life in its myriad forms over finite riches and death (Berry, 1988, p.120). We may not have known the words but our project had aspirations to be part of something greater than any one of us. *Iru* was not the goal of our project. But in allowing for students and teachers to work within the world, a wonder and awe at what the world was capable of, coupled with a sense of unknown as to the success of planting seeds in soil, took hold. I saw this wonder and excitement in the actions of students who willingly gave up after school hours and even Saturdays to rake and bag leaves, aerate compost bins, and travel out to The Organic Farm to plant seedlings and weed. Some students made a concerted effort to sit in on meetings, going so far as to miss hockey games and band recitals. These meetings held no promise of success. Quite often they involved a rehashing of the stated purposes of our project and an attempt to bridge it with other groups efforts to establish community gardens in and around St. John's. But students voiced their concerns, opinions and hopes for the project. They inspired other groups with their energy and enthusiasm. This spoke to the students' understanding and acceptance of the, "pressing need of a radical reassessment of our present situation, especially concerning those basic

values that give life some satisfactory meaning... It is a moment of transformative learning at both the individual and cultural levels of history" (O'Sullivan, 2002, p.4).

We persevered, accumulating through those meetings the knowledge necessary to convince the school administration that not only should we expand our on-campus compost program, but that we should have two raised garden beds on it as well. This decision was reached on a cool and misty May weekday during a lunchtime meeting. It was garnered not from the strength of either mine or David's arguments, but rather the obvious sincerity and genuine interest of students who had proven their commitment to the project. The Norwegian explorer Fridtjof Nansen "emphasized that people will always have to take risks to attain achievements. But certainly there should be some proportionality between what is ventured and what can be attained within reason" (Repp, 2007, p.111). The risk in accepting this project was that it would founder due to student apathy, be prone to vandals and scar the school campus. But the attainment of fresh produce, donated in full to Emmaus House Food Bank attached to the St Bonaventure's College campus fulfils the Jesuit educational ideal that students be men and women for others, that we find ailments in society and seek to meaningfully address them. In order for the garden and compost project to remain part of St. Bonaventure's College though, we needed to find a place for it within not just the school community, but the classroom curriculum.

In the beginning of the garden and compost project none of us, not David Martino, or myself, Mike and Melba Rabinowitwz or the students - teacher-partners all - would have foreseen the successes we would achieve in planting in just our second year four garden plots. We grew potatoes, turnips, carrots, tomatoes, zucchini squash, parsley, oregano, thyme, and radishes too, all of which was donated to the Emmaus House Food

Bank. Such successes, however, are tempered. We still have work to do. We have never won over the custodial staff of St. Bonaventure's College. Whenever fruit flies appear, or the smell of garbage wafts, the compost project is the first to be fingered. Compost bins have been thrown away without consultation in the name of hygiene. We are still learning about the nature of plants, their symbiotic relationship with insects and fungi, the variables of climate. In our first year of planting the summer was unusually long and hot. A water ban was put in place. But our zucchini squash vines and tomatoes flourished, and we harvested lettuce well into late August. In our second year there were records set in June for the amount of precipitation. Days and nights were cool and wet. It wasn't until July that summer finally arrived. Weeds and slugs flourished. The gardens needed almost daily attention to keep the weeds at bay. These are the lessons we need to accrue if this program is to remain successful in the future. Through this project I see us all - teachers, students and partners - coming to know our surroundings better, and working to make sure they are available for tomorrow's generation too. This is why we have worked to link the project to the Newfoundland and Labrador Provincial Curriculum because within the objectives listed can students, parents and teachers find resonance with the project as a scholastic tool which makes teaching and learning resonate genuinely.

4.2 Bringing the Curriculum into the Garden

Part of the agreement that we could begin an on-campus gardening program was the condition that it had to be fenced in. This would deter would be vandals, dogs and other marauding forces of ill-intent. In truth it could have deterred almost none of these destructive forces. We had mis-measured the opening for the door and subsequently left a half foot gap between poles which was wide enough for any self respecting canine or

clever human to sneak through. Further, we quickly forgot the combination to the door lock and resorted to jumping the fence. We began to model the behaviour we wished to deter.

But we would find that in weeded spaces, where food or flowers are being grown, a sense of ownership and common good resonates to the wider community. Such spaces are often left alone. Rather, it is deserted spaces that attract unwanted attention. By way of example at a community garden in Rabbittown, a lower-income area of St. John's, the only vandalism they received was the loss of some vegetables. But this was the purpose of the whole project - to provide vegetables to those least able to afford them. Perversely then, the theft became an affirmation that the project was doing good work (Author conversation 2009). Our fence proved to be the most arduous part of the entire garden and compost program that first year, requiring the combined efforts and skills of teachers, students, outside consultants and community partners. It was also the most expensive. We had to spend the bulk of the money we'd received from donations and grants to acquire the necessary fencing supplies.

It took us the better part of a week to plot out the site for the garden, dig down a foot and a half only to find it knotted with gnarled and twisted roots. We then filled in the hole and moved the entire operation to the other side of campus, dug eight holes three feet deep, filled them with concrete and placed eight-foot metal poles in to set. Then we set up the door to find the measurements taken were too big. However, the concrete had

by this time set and though we thought some rather ugly phrases our hands were tied. We set up the door anyway and strung out fencing round the nine and a half foot by thirteen foot perimeter. Attached the fence with pliers. Blisters, pinched skin, scrapes and bruises were the order of the day.

It was in the midst of such physical punishment as we hauled the mesh fence round the structure that I had a chance to witness applied mathematics in action. The fence was attached to the posts at the base with a wire that was strung through the fencing and pulled tight. Two students, rather than measuring the entirety of the structure were calculating the perimeter using the Pythagorean Theorem. The last math course I ever took was in high school. The teacher was an energetic math enthusiast with a mathematically-laden vernacular I could make no sense of. I revolted against random letters which represented numbers, or worse numeric values. Percentages gave way to graphed tables which followed convoluted formulas and my brain seized up and delivered a 33% on the final exam. Which I, mathematically challenged though I might have been, could understand. I can remember complaining to a classmate that I could see little use for the Pythagorean Theorem after a class of examining 3.14 extrapolated down bizarre and mysterious corridors.

Yet on that day in the garden, as fingers caught and skin frayed as we hauled and verbally cajoled the fence round awkward corners, there were two students using, indeed arguing over how many Pi made up the perimeter of the fence. I'll admit that my first

reaction was to tell them to stop hoisting around, to help us get the fence set up already. One is always ready to presume one's ignorance as universal, not singular. I bit my tongue, however and listened in to a fascinating debate and show of mental arithmetic that my mind - brined in a heady, but mathematically mute mix of history, literature and politics - barely followed. At long last the two students agreed that they had deduced the perimeter and cut the wire. I passed along my congratulations, noting that I had never seen a useful application for that theorem. The two students looked at me like I had two heads, muttering something that smacked of "history teacher" beneath their breath. However, when I returned to them ten minutes later they were still struggling to get the properly cut wire through the fence. Both of them were pushing on it from behind, so that it curled and bent wildly. Taking the pliers from out of my jacket pocket I grabbed the wire from its forward position and hauled it with ease to the first post.

"Ah, so that's how it's done," said one of the students. I handed off the pliers, incapable of wiping the smirk from my face. I had managed to even the score between applied mathematics and myself. However, that moment stayed with me. A parent had challenged us to see the utility of the garden as an academic tool to augment student learning. Here it was right before me. If we could bridge the garden into the school and classroom curriculums it might make learning resonate all the stronger with students.

With this experience fresh in mind David Martino and I asked fellow staff members to see if they could find a place within their lessons for the garden and compost

program. We received particular attention from the primary and elementary teachers who found in the garden an extension of their taught curriculums. Grade 3 students, for example are expected through the Life Science: Plant Growth and Changes curriculum, specifically Uses for Plants, to respond "to the ideas and actions of others, such as farmers, gardeners, environmentalists, grocers, and loggers, and acknowledge their ideas about the uses and replenishing of plants." Given the wide spectrum of persons examined students should become aware of the use of plants for commercial and sustainable ends, and find that they are not opposite goals. Here lessons about farming the land sustainably, as put forward by Masanobu Fukuoka and Wendell Berry might offer insight. Clearly their writings need to be percolated down into a more approachable language and grounded in hands-on work with the compost and garden project. Such hands-on learning would also compel students to see the conditions which best aid in the growth of plants - sunlight, water, soil, nutrients and warmth. This makes the movement of the seasons, from summer to fall, winter into spring all the more poignant in that the garden itself becomes the silent teacher, a testament to a hardiness brought forth from the vicissitudes of Newfoundland's wet and windy weather.

Such a clear link between the garden and curriculum, which Chapter Five will go into more detail upon, becomes muddier as students ascend into the higher grades. While some teachers in junior and senior high school were interested in working with the project, their interest was belied in their reliance on us bringing the project to them through pictures, by measuring out the garden spaces and in bringing to them examples

of grown produce. The garden and compost project was for them a peripheral tool, not the focal point for lessons. This highlights St. Bonaventure's College perceived role as a university preparatory school. For many students, "the emphasis is on earning money in a provisional future that has nothing to do with place, commons, or community" (Prakash & Esteva, 1999, p.3). It isn't that those junior and senior high school teachers were not concerned with the same issues that beguiled us. They admired our motivations which became the garden and compost program. But having themselves been educated with the notion that university is liberating, individually and financially, they did not place as much value on what seemed an alternative, indeed peripheral, educational narrative. "We in the west cannot fathom another way to perceive the world save the industrial computer analogy... and schools reinforce the individual hedonistic-oriented lifestyle, aim for individual success as happiness" and thus perpetuate the western-centric way of living as the best (Bowers, 2006, p.71). Lisa Gregoire notes that the Inuit of Northern Canada are being swept up in an environmental revolution which will radically alter their way of life. But through local ingenuity and intergenerational teaching and learning their knowledge of their lived place - *inua* - may well provide them with the ability to adapt to a warming Arctic (2008, p.50). David Gruenewald charges that educators must find how place fits into the curriculum. "Definitions of school achievement must begin to take account of the social and ecological quality of life"(2003, p.8).

While the project is not yet conceived of as part of the everyday curriculum for St. Bonaventure's College we can see the importance of it becoming so. Grade 4 students

now collect daily during the calendar year the school's compost and deposit it in the campus bins to continue the process of life, collapsing slowly in upon itself back into soil. Students are excited to get their hands dirty, to learn bodily as well as intellectually. They delight in the thriving ecologies of fungi, worms and insects they find within the compost bins. Conversations with grade 4 students do not focus on why they are being subjected to collecting compost. They do not whine about being ridiculed. Rather, there is credence, a sense of belonging to a schoolwide project. They see high school students planting seeds, watering plants, harvesting produce and want to be a part of it. Here then is intergenerational inspiration and learning wherein we might unlock the possibilities for community self-sufficiency. In using the gardens and compost bins themselves as the focus of lessons, teachers plant the seed of thought which asks, "Who owns this world? Who cares for it?" When that seed is planted, watered by experience and nourished through reflection can come the realisation that humans are only transient beings and that we should hold our surroundings with reverence for, "life cycles are sacred and interdependent" (Bowers, 2006, p.143). In hands-on learning relevant to the provincial curricular objectives students discern and understand more than any textbook could make specific. "Facts and figures, reason and logic can show us the errors of our present ways; they can delineate the risks we run. But they cannot motivate, they cannot teach a better way to live. That must be born inside our own convictions" (Selby, 2002, p.88). Convictions which I contend are nurtured through experiences of the world, which this program can help bring forth.

In answering what influence a garden and compost project can have on a school community's curriculum, both in the classroom and outside of it, the answer is potentially immense. We have found students who want to be part of this project, who have donated their time and energies freely and even begun their own garden projects at home. We have also encountered students who can find little reason for composting, who see the project as at best a peripheral school event which doesn't concern them. I have tried to capture the nuanced realities of setting up this project. Never once did we contend with overt anti-composting or gardening sentiments. Most everyone, from the school administration to parents and even a majority of students agreed from the very beginning of this project that it had merit as an after school program, as a means to green the school and, perhaps most importantly as an educational tool. Yet we have also often encountered responses like, "This is a great idea, but where are you going to put it?" to a suggestion we start a gardening project. And, "I think this would be excellent, but what about vandals?" when we requested to move and expand the compost program. These concerns were alleviated when we articulated the program as an educational tool tied to the provincial curriculum.

This coincided with a larger trend in society towards accountability with our surrounding world. The Globe and Mail was running articles in early spring and summer of 2009 on growing food in backyard gardens in the weekend Style section. Awareness of food and composting were reaching levels previously seen during the early 1970's back to the land movement (Pollan, 2008, p.172). Suddenly we were onto something, tapping into a larger trend. The solitary, lonely goal of reducing the carbon footprint of the school had become part of the St. Bonaventure's social justice mandate, an extracurricular activity and an educational possibility. In the process it had become something more.

This made it more vulnerable because of concerns about arsonists, vandals and apathy would render the program an eyesore to a failed endeavour. But the flicker of a future for the program within the school and classroom curriculum, as well as in providing nourishing produce to those least able to afford it won the day.

Within the program students and teachers came to operate in a middle ground, where the line between educator and student blurred into nonexistence. Simply, none of us knew much or recognized that perhaps there might be limits of where we could go with the project. We managed to network successfully with other community organizations within the St. John's metropolitan area and were rewarded with knowledge about the gardening possibilities, the fears of lead contamination with urban gardening in St. John's, the peculiarities of the local growing season and the fact that a great many people of different shapes and sizes, political stripes and religious affiliations found resonance with our project. Students involved with the project led a Saturday morning workshop at the St. John's Farmer's Market and spoke at the Georgetown Neighborhood Association annual general meeting. While we are making in-roads in bridging the project into subject curriculums which, I believe, can be an invaluable educational tool to augment curriculum objectives, we still have work before us. The garden and compost project has been accepted within the St. Bonaventure's College school community curriculum, but not fully.

4.3 Harvest

The rain came down in lancing spears of cold. The air hovered with moisture, and the wind carried great sheets of wet. Into this mess, only a day removed from the last of autumn's sunshine we trudged, carrying buckets and bags to gather up the bounty from

the garden plot on Mt. Scio Road. I looked round, taking in our small garden. Tomatoes clung pluckily to the vines. Some had fallen, split, reclaimed by the ground that nourished them, but most were still in good condition. The zucchini had multiplied prodigiously. I had convinced myself that it was our collective green thumb which led to such size and quantity. But in reading some gardening articles I came to discover that zucchini are so prolific as to be considered a nuisance. The potato plants had largely withered to a deadened brown from the recent cold snaps. I took a pitch fork out of the shed, covered in cobwebs and frequented by scurrying insects, to find the potatoes hard, golden and plentiful. They quickly washed clean in the exposing rain. The carrots were stubby, orange and deliciously sweet.

It was a great and terrible day for a harvest. And it was a day the twelve of us would not soon forget. Few words were exchanged, the tasks obvious. Tomatoes were plucked from the vine, carrots pulled up, potatoes turned over and the zucchini carefully manoeuvred out of their spiny caverns. The food was destined for the food bank. At a time of so much want, with little canned let alone fresh produce donated, our harvest would, I thought, be a treat from the everyday of need. Did the students get to eat any? I was thinking that preparing and eating some of the results would be an important part of the experience too, educationally but also in showing what fresh produce tastes like, what their labours had produced.

As we worked I found it hard to think of the garden plot as anything besides a garden. Though we were in the act of harvesting, and winters snows felt none-too-far off,

it seemed to me it that this place had always been a garden planted over with vegetables. I had been out to the location on Mt. Scio Road, overlooking St. John's proper all the way to Cabot Tower and beyond, the blue expanse of ocean that demarcates Newfoundland from its distant European geographical lineage, when the garden plot had first been allocated to us. It had been nothing more than a field of grass, stakes driven into the ground offering rough approximations of the size of the garden. Seeing it worked over, planted, weeded and now harvested was to see the land transformed. We had put our stamp on this place. We knew what it was to work with a place and be rewarded for our efforts. The swampy heat of summer had given way to the cold lash of autumn's storms. Through it all, however, had we come, learned and taken away a successful haul of vegetables.

Our program ran against the grain of contemporary agricultural wisdom, where bigger is better and farms are often dependent upon a host of sprays and infusions, synthetically derived, to keep insects and weeds at bay. Antoine de Saint-Exupery famously wrote that, "the more perfect machines become, the more they are invisible behind their function... It seems that perfection is attained not when there is nothing to add, but when there is nothing more to take away" (Deakin, 2008, p.150). Industrial agriculture has taken the stance that there is always more to add. As such, the modern, industrial farm runs roughshod over the precarious ecological sustainability of farmlands around the world. "Industrialized agriculture thrashes the land, and diminishes its soil life to the point where it can no longer function to convert available organic matter into soil

fertility" (Pollan, 2008, p.116). Masanobu Fukuoka argued in 1978 that industrial agriculture relies on a plethora of theories which wed agriculture to the industrial model but without any real growth in produce yields (1978, p.75). F.H. King, an American soil scientist described in his 1911 book *Farmers for Forty Centuries: Permanent Agriculture in China, Korea and Japan* how the Japanese were able to feed three people per acre of farmed land. At the same time it took the Americans three times as much land to feed one person! What makes this example pertinent nearly a century later is that King was writing from a perspective where the United States had virtually exhausted "strong virgin lands and arrived in countries where the land was still fertile after forty centuries" of continuous use (Myers, 2005, p.37). In today's era of intensive additives to our food, which has attained startling, unprecedented yields from a historical perspective, there has been an "incremental erosion in the nutritional quality of our food..." Industrial agriculture promotes the exaggerated growth of plants because they are infused with synthetically derived nutrients. Such plants have shallow root systems because nutrients are readily available at the soil's surface. Organic plants, by comparison have deep roots. The reason for these deep roots is to tap into "the slow decomposition of organic matters [which] release a wide range of plant nutrients..." and to partner with mycorrhizae, "the soil fungi that lives in symbiosis with plant roots, supplying plants with minerals in exchange for a ration of sugar" (Pollan, 2008, p.120). Organic plants thus have access to richer veins and nuanced varieties of nutrients which show up in the final produce. So,

while over the short term industrial agricultural practices may increase produce yields, there are serious environmental and ecological consequences as well.

Humanity, in promoting the genius of synthetic fertilizers and the wonder of sprays to remove insect and plant 'pests' presume a dangerous superiority over nature where our scientific and technological advances stand tall over those of the earth's, which have arisen from several billion years of experience (Berry, 1988, p.74). By composting organic wastes, in mimicry of what nature does, we provide invaluable nutrients back to the soil. In turn these nutrients nourish a diversity of plants. By using intertillage, wherein multiple crops mature and protect one another, we can increase yields and keep pests down (Myers, 2005, p.40).

In growing many different plants, farmers are able to keep away insects and diseases that might flourish when just one plant variety is grown in abundance in one area. By resting the soil and growing green manure crops of clover and rye which are ground back into the ground nutrients are given back, a gift for what the soil has provided. This was what Fukuoka "discovered" as a natural farmer. In reality his was a rediscovery of the way farming was done for many millennia, as he himself admitted (1978, p.112). He let dying and dead organic matter compost atop the soil, which nourished it and thus the plants. This is not adding. It is falling into tune with the manner nature itself deals with the cycle of life and death. Dead matter nourishes the living and keeps vibrant the circle of life.

We found as teachers and students of the SBC garden and compost program, those who subscribe to natural farming, who use organic means to attain produce from the soil. It was never a serious debate within our program that we would be an organic garden. We wanted the garden to be accessible to the public so we couldn't spray pesticides on crops. Further, we were very keen to stay true to the original intents of our program, composting. By making compost into soil we would be respecting the natural cycle of life into death. So we sought out local, organic farmers and gardeners like Mike and Melba Rabinowitz and community partners like Food Education Action St. John's (FEAST). Each of them helped us understand what it means to grow food on ecologically sustainable terms. We also came to understand the falsehood that Newfoundland isn't suitable for food production, which has resulted in just over three percent of the island's available landmass being used for agriculture (Food Security Newfoundland and Labrador, 2009; foodsecuritynews.com). We are not limited in what we can grow here for there is a startling diversity of options - lettuce, tomatoes, artichokes, cucumbers, squash, and herbs. In local produce we find food which is, "typically picked ripe and is fresher than supermarket produce, and for those reasons should be tastier and more nutritious" (Pollan, 2008, p.160).

In Newfoundland much of our produce is shipped in from far away. This means that fruits and vegetables are often priced beyond the means of those on a fixed income. By growing organic produce for Emmaus House Food Bank we wanted, as a project, to promote social justice and health together. Too often those with the least financial means,

who often must purchase foods which are heavily processed but cheap, are those who suffer most from obesity, cardio-vascular diseases and Type-2 Diabetes (Pollan, 2008, p.171). Wendell Berry wonders why "rest and food and ecological health should not be the basic principles of our art and science of healing...[for] nothing is more pleasing and heartening than a plate of nourishing, tasty, beautiful food artfully and lovingly prepared. Anything less is unhealthy, as well as desecration" (2002, p.151).

In beginning this project I was not aware of the depths of my own ignorance of this place. I was a hiker, runner, cyclist and kayaker. I often felt connections to places because of such experiences - the whistle of the wind through trees, the lap of water against barnacle encrusted rocks, the smell of the forest floor as the fog begins to pull away back to sea and the sun warms the ground. I was also aware of the huge disconnects western society had towards its food and those who picked it. I saw connections between food and the development and sustainment of our health and culture.

As a Labourer-Teacher with Frontier College I had lived and worked side-by-side with migrant farm workers, largely from Mexico, on two farms. The first was a small, family owned tobacco and ginseng operation near Teeterville, Ontario. The second was also a family operation, but constituted a sprawling expanse of fruit orchards and vegetable fields just outside Vineland, Ontario. On the second farm I spent days mired in a stupefying humidity and nights of sweaty sleepless in a stifling barn converted into a dormitory. I also shared with these men an exposure to a cornucopia of sprays - pesticides, insecticides, herbicides, fungicides - with the barest protection offered, little

more than a thin veneer of assurance that the sprays were safe. The sheer volume of sprays meant that they became an accepted part of the everyday. Perhaps I wouldn't have even noticed them except that every second day from late July through August I was sent to pick zucchini flowers. These flowers adorned plates in the dining rooms of Toronto's brightest culinary talents and were thus sold at a heady price at the Toronto Food Exchange and the Lawrencetown Market. So every second day I went to the zucchini fields and picked zucchini flowers. My wrists were slashed by the thorny undersides of the plants which were coated in the residue of those sprays. Every night that I picked those flowers my wrists would swell uncomfortably until I could barely use my hands. When I showed the farmer - a young, university-educated economist - my damaged mandibles he smirked and noted that people wanted good looking food, not produce besmirched by insects. "People like the idea of no pesticides," he noted. "But they're not willing to pay for it." As a mere farm worker, I paid the price for the un-besmirched, wholly un-organic quality of the flowers.

With the benefit of hindsight I can see that he wasn't so cold to my plight as I might first have believed. His smirk marked the Faustian deal many Canadian farmers have had to engage in - using sprays and specializing in foods that bring in the best financial return so that they might keep their livelihoods, their homes within their communities. Our food culture hasn't gone away. Rather, it's been overrun by a system intent on growing a few grains that are transformed into an endless plenty of cheap food which has had a pronounced impact on us financially, and on our health, our ecology and

spirituality - in the manner that we approach the world where we grow food. My plight in the larger scheme of farm-related injuries is well down the list. Every year many farm workers, who come to Canada from Mexico, Latin America and the Caribbean at wages and work conditions few Canadians would work under, are seriously injured and even killed. These farms, beholden to industrial means, are seeking to make a profit. Healthy food or a healthy food culture are distant, secondary concerns.

This was precisely the mindset our program sought to counter, albeit admittedly on a much smaller scale. Simply, we felt there was a place for a compost and garden program operating on a closed loop, composted organic matter nourishing the garden beds and providing nutritious produce. We also stepped out into this program seeking to address the lack of fresh produce made available at food banks. Poverty demeans. In not allowing those who most need fresh produce the chance to afford it we contribute to their well-being negatively. They rely instead on food that is filling and cheap - and which often brings with it (when eaten in large quantities) complications with weight-gain, obesity, diabetes, cardiovascular disease and even cancer (Pollan, 2008, p.171). Our program has sought to address this lack, though we have met with mixed success. While potatoes, onions and carrots disappear quickly enough, our crops of kohlrabi, lettuce, cauliflower and zucchini squash were often returned to us. More work needs to be done to educate society about the importance of vegetables, and how to prepare them. Still, in growing organic gardens with the produce donated to the food bank we are fulfilling the Ignatian charge of the school that we be "men and women for others" and "find God in

all things". So too has it helped us understand the importance of citizenship - that in ignoring one segment of society financially we pay for it in other ways (health care costs, for example).

My connections to places helped me understand the need for an organic, local nature to our gardens. We wanted our students and teachers to have the experience of place, of discovering meaning for themselves there, without the worry of swollen, unusable hands, or the fits of coughing and asthma which appear in heavily sprayed areas (Carson, 1962, p.65). We wanted a program that would recognize its importance to the human, but also natural communities. For those reasons did we decide to grow organically, to supply food locally for those least able to garner fresh, nutritious produce.

4.4 The Garden Project as a Model

As to whether our project can act as a roadmap for other schools and community organizations to follow in partnering with community and government organizations, local experts and like-minded individuals and/or groups I see in the St. Bonaventure's College garden and compost program the framework of possibilities. St. Bonaventure's College, as a private school, allowed David and me the freedom to conceive of this program, to parachute it into the school's extracurricular activities and, in some cases, to meet curricular objectives and later, to find a place for it within the school's Social Justice Committee. While we had to convince the school's administration of the benefits of gardening, and where we might locate it, this obstacle proved to be beneficial to our program in the long run. We had to attend meetings, a lot of meetings, which tested our

mental mettle. But we learned from these meetings the language and actions which eventually led to us successfully making gardening a reality at SBC. We had to seriously address and research the concerns fellow teachers, students and the administration brought to us. To alleviate worries about vandalism we proposed that the school garden be fenced in. To counteract concerns about student apathy we sought out students' active participation and commitment from the project's inception. We did research to find out that used green spaces don't attract vandals, they repel them. We also found that by exploring the links between the project and the provincial curriculum, as well as the school's articulation of social justice we could develop the requisite vernacular to convince the administration that our project could be successful if given a chance.

In offering advice to school and community groups interested in creating their own projects I would propose an intimate familiarity with the school and/or community's stated goals. Within those goals the articulation of your project become part of something which already exists, rather than a crude appendage tacked on which might distract from the school or group.

In establishing links with government agencies our project had little direct success. We made contact with the Newfoundland and Labrador Multi-Materials Stewardship Board (MMSB) about composting and the availability of compost bins. Up until 2008 the MMSB had offered discount compost bins. A change in the leaderships of the MMSB saw their mandate re-configured to educating, alone and without the availability of cheaper compost bins, the province about composting and recycling (*The*

Scope, 2008, scope.ca). This meant we had to purchase our compost bins at some cost. In this regard the MMSB impeded, rather than aided our project. However, they do offer novices a plethora of information, including the means of manufacturing your own bins. Where the MMSB let us down we turned to other agencies. The Conservation Corps of Newfoundland and Labrador gave us a presentation on climate change and the possibility for composting and gardening, the reintegration of the life creation mystique if you will, to help dampen its worst excesses. That is, by composting organics you take such materials out of garbage dumps where they can rot, slowly, for decades and even centuries - impeded by plastics and poisoned by synthetic chemicals. Compost becomes soil which nourishes plants with nutrients which sustain life. Plants breathe in carbon dioxide and release oxygen, which means they are central to our ability as a species to survive. The Conservation Corps also awarded our project a grant with which we were able to purchase seedlings, box garden kits, soil, manure, some basic tools and fencing. Mark Wilson and Lori Heath in their capacity as managers of The Gathering Place Experimental Garden allowed students to help out within their own project's mandate. This gave students the opportunity to learn about the leaching of lead into the downtown soils of St. John's from decades of throwing coal and old paint into the backyard, to see the opportunities growing plants has to restore the vitality of the soil and nourish too. This latter partnership brought us into contact with Food Education Action St. John's (FEASt) and Community Supported Agriculture (CSA) St. John's wherein we learned about the struggle to re-establish a gardening tradition in St. John's and Newfoundland.

and that Newfoundland grows just 15% of the produce it eats (Food Security Network of Newfoundland and Labrador, 2009, foodsecuritynews.com). Our project worked hard to establish connections with FEASt that might lead to a working partnership between our project and one of theirs. This in turn led us to contact Can-Do Productions which offered support and the box garden kits. The Wellness Coalition-Avalon East awarded our project a grant in recognition of our ability to partner with outside agencies, which has culminated in the project's second year in a working community garden with FEASt and Pippy Park St. John's at Oxen Pond Road. I offer these examples to show that while we may not have gotten what we initially wanted from MMSB, that obstacle became the opportunity to network, to engage in constructive dialogue with other groups representing myriad agencies and agendas and find common ground. The success of initiatives like the garden and compost project at St. Bonaventure's College depends upon a wide spectrum of such groups which support one another. In many ways this mirrors the health of a well maintained organic garden - diverse, with different shapes and tastes but grounded in the same soil and working for common betterment.

At the same time students found educational resonance in the opportunity to work with a wide variety of community partners, like Mark Wilson at The Gathering Place Experimental Garden and Mike and Melba Rabinowitz at The Organic Farm. Such opportunities brought with them the experience of getting dirt under their nails and planting seedlings but also the opportunity to connect these physical experiences to their classroom learning's. Reading about plant growth and soil composting is one thing. The

experience of planting that seedling in soil created from composted organics - this was genuine learning at work. Some students have also given discussions about our gardening and composting program at the St. John's Farmer's Market and the Georgetown Neighbourhood Association, turning on its head the student-teacher hierarchy. The ability to teach others, to help them create at the least the idea of gardening, has been one of the most rewarding, and unexpected, effects of this project.

4.5 Summary: Our Garden's Place in the World

Our project can be seen as an attempt to recapture "the commons"- the meeting of the human and wider biotic community within a given bio-region (Bowers, 2006, p.34). Through such meeting places do we reinvigorate communal relations. The commons as Bowers articulates it is a move away from the physical isolation from one another that marks contemporary Western society, in the form of suburbs and individual motor vehicles. Instead we must seek integration between human, animal and plant communities that share bio-regions (Bowers, 2006, p.35). We may recognize, intellectually, the need for this reintegration of the human world with the natural world. As such we might posit, even acknowledge, that global warming, soil erosion and water degradation are happening and caused by human actions. But what stops us from stepping forward is our perception that none of these constitute an actual threat to our way of life, at least in the western world, or perhaps more importantly on our wallets. Not yet anyway (Monbiot, 2008, p.33). The rhetoric of an approaching ecological calamity is countered by the resounding echo of the costs of tackling said problem. It has become an either or

dichotomy: either the environment or the economy, jobs or forests. Today's economic and societal status quo is considered an infallible good. Environmentalism stuck in this binary argument becomes an evil in that it argues against the mantra of economic growth, against the status quo (Rifkin, 1983, p.54). Yet we miss out on the shared dreams and hopes for the future we all share as citizens when we percolate such huge issues into simplistic binaries (Suzuki, 2002, p.4). The interconnectivity James Lovelock spoke of in his Gaia Theory (1977), where all life is interconnected and in turn nourishes Mother Earth itself is found in the evidence of our destructive ecological behaviour. The chemical nitrates and pesticides that keep fields going are washed out along the great rivers of the world every spring and summer where they collect into great pools of chemicals that foster blooms of algae growth, which in turn deplete the water of oxygen. (Suzuki, Moola, 2008, Paragraph 3).

This is one of the effects industrial agriculture has on our world. It originates in a divorce from the natural world. Further, it highlights the loss of a narrative which places humanity in working partnerships, harmony even, with the natural world. The Christian Book of Genesis has become a relic to the dogma of science for some, and held aloft as the literal gospel truth by others. Both miss the power of mystery in the creation mystique story, the story of life, to sway human behaviour, to help us hold in reverence our surroundings. This is what Edmund O'Sullivan termed globalization versus The Story of the Cosmos, one limited to human endeavours of economic growth while the other tries to encapsulate the story of how life began and will continue to grow (1999, p.197). The

cosmological story recognizes the wonders of the world, some of which we are only beginning to understand. Many more have yet to be discovered. We can find the cosmological story in the sudden spurt of growth from a zucchini plant, ponderous vegetables scraping at the ground.

These issues are at the ideological heart of the St. Bonaventure's College garden and compost program. Through them we recognize the issues earth is grappling with which have shaken, by many accounts, the ecological foundations upon which we base our own existence. The story of our project, grounded in a small city teetering on the very edge of the continental shelf, is part of our attempt to help this place. St. John's, Newfoundland has until quite recently been absent with now de jour environmental action like recycling. Still there isn't a viable composting initiative in the city. This leaves a rich vein of community activism for environmental action to be explored within this locality. Through this thesis, the acts of composting and gardening have been shown as a means to work with and know, intimately, this place. This knowledge can be further linked to the provincial curriculum in classrooms, and with the work of other community groups and teacher partners like FEASt and The Gathering Place Experimental Garden. This is how we tap into the possibilities for intergenerational teaching and learning which serve as a powerful counter argument to globalization's blunt goal of profit (Bowers, 2006, 150) and magnify the power of this project to foster new possibilities within this locality.

There is a caveat to all our work here. "We are caught in the paradox that we cannot save the world without saving particular places. But neither can we save our

places without national and global policies that limit predatory capital and that allow people to build resilient economies, to conserve cultural and biological diversity, and to preserve ecological integrities" (Orr, 1992, p.170). In recognizing that our project parallels the work of other projects and intentions to help save specific areas we find common ground across a multitude of localities. Yet without some kind of national and international framework to work within, these good works are isolated narratives. This doesn't allow us to squirm away from responsibilities to our surroundings, to shrug away the problems of pollution, climate change and soil erosion as irrelevant to us in the here and now. Rather, we must take a page out of Yvon Chouinard's book. Founder of Patagonia Inc. he donates a full 1% of the company's sales each year to causes that benefit the world. "...The cure for depression is action, and action is the basis for the environmental philosophy at Patagonia..." (2005, p.190). Action was how we would engender new possibilities within St. Bonaventure's College, amongst the students, teachers and the wider community of parents and relatives. It was why we persevered in all those meetings, because we found something tangible and viable in the possibility of the garden that was missing in our then everyday discourse.

Mike Rabinowitz told us on that grey, misty April morning that Newfoundland was the best place to grow lettuce. It was richer in nutrients, grew better than anything produced in California, Mexico or even Ontario. I'll admit to being sceptical. If Newfoundland lettuce was so good why couldn't it get past the provincial borders? Why didn't Newfoundland farmers take their complaints to the provincial government? To the

federal government? To the World Trade Organization to protest the flimsy excuse of the potato wart as reason to ban all island produce from the mainland? My scepticism ignored the realities of a province which allocates just 3% of its territory to agriculture. Mike himself took the first axe swing into the firm trunk of my oaken scepticism. He didn't sell us any run-of-the-mill iceberg lettuce I had expected. Instead we got four different varieties whose leaves were unlike any lettuce I'd ever purchased or even seen. There were red-tinged oak-leaf lettuce, curly rounded leaves that blossomed into great plumes of greenery and red lettuce that grew quickly and came whole from the ground. Their flavour too was different, though this could have been the result of eating lettuce that never entered a vehicle. We merely harvested and walked the lettuce over to the food bank, admittedly pilfering here and there for summer salads and the compliments of friends.

But the stroke that brought down my scepticism was the summer breakdown of all ferry service between Nova Scotia and Newfoundland in July of our first growing season. For four days no vessels traversed the Strait, and lettuce shipped from Mexico and California sat in the stale heat of July. The great refrigerated trucks idled, then shut down. The lettuce began to rot and liquefy in the heat. These lettuce leaves, flown and driven thousands of kilometres and selling for up to eight dollars in grocery stores in Newfoundland, symbolized our dependency on the global market to provide us with sustenance. If this market line was severed, what would we do here in Newfoundland? To whom would those least able to afford vegetables turn when prices skyrocketed? The

natural solution would be to return to growing your own vegetables, to shortening the food chain between grower and eater to the shortest possible ebb. As short even as walking from ones house to the box garden.

The ferry debacle raised in me the economic and environmental folly of our current system. We have given up food production in Newfoundland for the convenience of grocery stores. Yet, increasingly, food prices are rising. Nutrient counts are falling in factory produce because companies seek out not vitamin rich plants and animals but those that can best be altered to meet maximum economic efficiency. It is cheaper, and not terribly difficult, to grow lettuce in Newfoundland. Educationally, growing food offers multiple lessons to students and teachers alike on growing, and maintaining crops. I couldn't say if Newfoundland lettuce is the best. But it's the best I've ever tasted. By taking ownership over food, by growing it ourselves, we are educating tomorrow's citizens about it. In planting seeds, weeding, watering and harvesting potatoes, tomatoes, herbs, lettuce, radishes and onions we instill in our students, and embed within our educational curriculum the active role of citizenship rather than the passivity of consuming. Citizens seek out what is best for the community within which we all live. We were, like Chouinard, acting.

Which is why similar projects like ours need to be brought into schools. Such experiences make education a very powerful tool indeed for change and the betterment of society (Davis, Sumara & Luce-Kapler, 2000, p.177). Therefore, the power of this project to inspire other groups to promote local ecology, to work to protect and find new avenues

of interaction with the world - while it has not always been enacted - makes it a powerful educational endeavour for the betterment of St. John's.

Chapter 5: Curricular Links to the Garden

We initiated a compost program at St. Bonaventure's College because we felt that it was wasteful to be throwing away organic waste. We began the garden program in conjunction with the composting because there lies the most natural fit between composted soil and gardens - where death can provide nutrients and life. As we progressed with these two separate but related segments we saw the need to bridge them into the regular, day-to-day instructional mechanics of the classroom. This realization came about as we navigated the treacherous, mentally-numbing shoals of countless meetings where we were trying to convince others of the worth of our program within the school and community. A chance conversation with a parent led to a story about her nephews attending a school in Ontario where greenhouse work was part of the prescribed curriculum.

"If you do something like that, let us know. We'd like to be involved," she said.

We had harnessed the energy and talents of a strong, vocal minority of students in the junior and senior high grades. The immersion of our project within the day-to-day curriculum of the school would cement its viability. Further, the power of the garden compliments the curriculum - always has. As David Orr explains

"farms were schools of a sort in natural history, ecology, soils, seasons, wildlife, animal husbandry, and land use. The decline of ecologically diverse farms and the experience of the natural world that they fostered explains in large part, I think, the increasing gap between the broad support for environmental causes evident in public opinion polls and a growing ignorance of how ecosystems work and how private

consumption and economic growth destroy the environment. In other words, the sharp decline in the number of farms and the shift towards industrial agriculture has had serious consequences for our collective ecological intelligence" (1992, p. 117).

5.1 Origins and Examples of School Gardens

Sir Albert Howard, a nineteenth century British trained mycologist, copied the methods of the Indian farmers he was supposed to be "reforming" with the methods of modern agriculture and was amazed that he learned, "how to grow healthy crops practically free from disease, without the slightest help from... the modern experimental [farming] station" to which he was attached. What he found in these uneducated farmers was a holistic vision, a balance between the human and natural worlds wherein they could discern what the earth could provide (Myers, 2005, p.51) - the very opposite of Orr's lament. Fannie Parsons noted in the early twentieth century that, "city children are alienated from their birthright of trees, fields and flowers..." To correct this she founded the DeWitt Clinton Farm School in New York City (Lawson, 2005, p. 36). Farm schools were seen as a means to energize students with rigorous hands-on learning of farm work, preparing the soil, sowing the seeds, watering the fledgling seedlings, weeding and later harvesting the produce. So successful were they that Philander P. Claxton, the Commissioner of the United States Bureau of Education in 1916, declared "I look forward to the time when school gardening and home gardening may become an integral part of the work of all schools" (Lawson, 2005, p. 37).

Farm schools such as these have largely given way to the demands of a society that demands results, from grade school to the boardroom. These results are largely profit-driven. But some agricultural programs have found their niche, and flourished therein. At Martin Luther King Jr. Middle School in Berkeley, California an old parking lot has become a garden under the tutelage of local chef Alice Waters and the enterprising vision of Principal Neil Smith. Known as "The Edible Schoolyard", the garden incorporates lessons in science and social studies, as well as offering healthy fare in the school cafeteria. Science because within the garden students can study the burgeoning growth of plants, see the interaction between plants and insects, find on the very doorstep of the school the life cycle of a whole interconnected web of life, human to insect to plant to fungi. In social studies there was a recognition that food and its preparation are at the very core of culture. For the many students from Mesoamerican lineage, the growth of maize/corn and subsequently its preparation into food allows them to tap into the rich cultural and historical connections that empower students within their culture and allow for conversations to bloom about multiculturalism (The Edible Schoolyard, 2010, edibleschoolyard.org).

The Food for Life Partnership in the United Kingdom offers an interesting national example of schools making use of organic gardening to feed students, to provide fresh produce in low-income communities and educate students in a broader context than just what is prescribed by the curriculum. Herein students grow fruits and vegetables on the school grounds which teachers make use of in classes. When said produce is harvested it is either used in the school cafeteria or donated to local food banks and/or charities. In reference to the former, schools participating in the Food for Life program

have noted more students eating school cafeteria food and a decrease in behavioural problems (Food for Life, 2010, foodforlife.org.uk). This supports the idea that nutrient dense whole foods provide healthy sustenance for young people that processed foods - which by their very nature are laden in salts, fats and sugar - simply can not (Pollan, 2008, p. 149). Literally hundreds of schools have participated and bridged a national curriculum (for more information visit www.curriculum.qcda.gov.uk) with lessons in animal husbandry, gardening, weeding, harvesting and healthy eating and living (Food for Life, 2010, foodforlife.org.uk).

Finally, the Everdale Farm and Environmental Learning Centre outside Hillsborough, Ontario is a 50-acre mixed farm which offers schools and interested individuals the opportunity to become farmers for a day. In this regard they provide tours and lessons, linked to the provincial curriculum through hands-on learning. To learn on a farm is to do. So not only do they raise goats and chickens and grow vegetables, they also offer young people the opportunity to better understand, through physical experience, that healthy soil equates with healthy plants which results in healthy people - students included (Everdale Organic Farm 2010, everdale.org).

This is not an idle connection. As Michael Pollan notes in *In Defense of Food*, "if my explorations of the food chain have taught me anything, it's that it is a food chain, and all the links are in fact linked: the health of the soil to the health of the plants and animals we eat... to the health of the eater, in body and mind" (2008, p. 144). To my mind you cannot really appreciate this connection without, in some way, being tangibly connected to it. Thus, the examples of The Edible Schoolyard, the Food for Life partnership and Everdale Organic Farm underscore the importance of healthy produce

derived from organic gardening for communities, of which students and schools are a most important part. They help reinforce the power of gardening, to bring alive lessons which might otherwise stagnate into mere intellectual exercises.

5.2 Our School Garden

In using the gardens and compost bins which are the physical trappings of our project we, as educators, can traverse the precipitous fault line of the "terminal Cenozoic" story that marks contemporary western society - so intent on exploiting the resources of the earth for short-term profit without acknowledging the needs of tomorrow's generations - to a more sustainable footing and the holistic visioning of the "Ecozoic" story (O'Sullivan, 2002, p. 4). Herein, as teachers and students we may find our *ivu* and delight in being alive and perpetuating it, sustainably.

In a notion such as *ivu* can I see why we embraced the challenge laid down by Mark Wilson to begin a garden, to use our composted soil. His challenge awakened in us a desire to be a part of something broader than ourselves, which spoke to our community at large. By becoming growers of food alongside our students, David and I were in turn challenging our students to see beyond the limits of the grocery store. By taking ownership over the growing of food, by composting, by having students lead community workshops on our project we are instilling in them not the passivity of consuming, but the active role of citizenship. This idea found traction early on in the project's journey. We decided that we could donate the grown produce to the Emmaus House Food Bank, providing fresh, local produce to those least able to afford it.

Our composting project was well-received, within the school and outside it. There was a measure of peer pressure from students to make ourselves, as a school community, accountable to the local environment. We were committed to composting. Yet at the same time we had a great deal of ignorance about urban gardening. We came to realise that, just like citizenship, gardening required us to do some homework, to become informed. We mirrored Masanobu Fukuoka who began his working career as a plant researcher, specific to agriculture. While employed in this field he felt there were better, more natural methods to be employed towards agriculture than the growing reliance on chemical sprays and manipulations he saw as a researcher. To prove his hypothesis he left his job and set out to grow naturally, without interference either physical or chemical, in his father's tangerine orchards. "The result was the branches were intertwined, insects attacked the trees and the entire orchard withered in no time" (1978, p. 13). This failure resulted in his return to agricultural research, this time as a consultant. But it afforded Fukuoka the opportunity to become attuned to the methodology of organic farming through his work. He immersed himself in the lessons of local farmers and garnered success to the point that he regularly achieved yields of rice and grains well beyond the purviews of modern agriculture. "Since advanced technology had nothing to do with growing this grain, it stands as a contradiction to the assumptions of modern science. Anyone who will come and see these fields and accept their testimony, will feel deep misgivings over the questions of whether or not humans know nature, and of whether or not nature can be known within the confines of human understanding" (Fukuoka, 1978, p. 29).

While such yields are possible, we haven't achieved them yet; we need to spend more time with the land, with nature. We do not begin at a position of intelligence, of understanding. So we have sought out and listened to experts like Mika and Melba Rabinowitz at The Organic Farm and availed of community groups like Food Education Action St. John's (FEASt) in order to get our own gardening project begun.

In this regard, having understood where we began, we were also very concerned with moving the project forward so that it might last the trials of time. Where we succeeded in initiating this project, garnering coverage in the local media (*The Telegram*, November 2008; CBC Radio Noon, May 2009; *The Scope*, July 2009), we were pushed to see the possibilities of gardening, of bridging the divide between dying into living into dying, an idea early agrarian Christians understood as the very beginning of the *life* story as articulated in Genesis 2:7: "The Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul." From such an understanding, where our project relied to a great extent on the experiences and intelligences of others, with the spiritual underpinnings of Jesuit theology readily becoming apparent, did this dissertation focus itself on two questions:

- *What influence can a composting and gardening project have on a school community's curriculum, both in the classroom and outside of it?*
- *Could the St. Bonaventure's College composting and gardening project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?*

I would like this project to have resonance beyond a master's thesis. I hope it can provide for teachers, parents and students a working example of how organic gardening can be bridged successfully into the classroom. This may be as an out-of-class, hands-on learning initiative. Or it may be a contemplative, reflective exercise based upon the garden in the class. This dissertation does not provide ready-made lesson plans. Rather, in taking specific curriculum objectives from the Newfoundland and Labrador curriculum, I hope to show where the garden and compost project links to various subjects. I am not a science teacher, or the most gifted math student. But I can still see where this project would fit into those classes. My hope is that other teachers and/or community group leaders will do likewise. Finally, the garden and compost project has been greatly influenced by the Ignatian pedagogical paradigm of experience, reflection and action. I would suggest that in bringing a project like ours into a school community one invokes, even without trying, a sense of the sacred. Edmund O'Sullivan in his essay *The Project and Vision of Transformative Education* addresses the idea of spirituality in the contemporary classroom. "Contemporary education today suffers deeply by its eclipse of the spiritual dimension of the world and universe... It [spirituality] has been compromised by the vision and values of the market... Our first and foremost task in life is to take hold of our spiritual destiny- a phrase that is not a household word in education. Nevertheless, we must begin to consider education as a spiritual venture" (2002, p. 10). Holistic education isn't possible without an identification with the spirit. Further, students cannot *know* their world, physically, mentally or spiritually, without being grounded in it tangibly. This is why compost and gardening need to be brought into schools. It is what drove us to become growers, urban farmers.

5.3 Stories and Curriculum

Stories are the fabric of our shared culture, never more so than in the earliest grades. Children easily connect to stories. From them they wish to share stories of their own, which sometimes connect to the story told, and often not. This was my first lesson when I began my teaching career in Waltham Abbey, England. Though trained as a secondary school teacher I found myself instructing first Year 6, and then Year 3- the British equivalent to Grade 5 and 2 in Canada. I quickly had to become adept at understanding fights rooted in who had taken whose football, understanding that pants was British vernacular for underwear and that, if I wasn't careful lessons could be bogged under by stories about last night's football match, horse riding lessons good and bad, really needing to use the loo, and the adventures to be had along the local canal bank. The trick was to turn the stories into the lesson, to incorporate student voices while directing their vision back to the objectives at hand, something which comes only by listening and a strong dose of patience. But students' need to tell stories is rooted, I believe, in an excitement for the material. They are trying to make school and stories relevant to their own lives and the lives of their classmates. "All humans are continually 'inventing'; we are all caught up in a creative dance of invention and interpretation... Learning to understand new experiences in relation to remembered and predicted experiences is a form of creativity" (Davis, Samara & Luce-Kapler 2000, p. 195).

In approaching the Newfoundland and Labrador curriculum, then, one must be cognizant of the role story can play - for students and the teacher - even within

curriculums not given overtly to stories. The manner in which we learn isn't nearly as clean-cut as we like to stereotype (Davis, Sumara & Luce-Kapler, 2000, 72).

5.4 Science and Mathematics

Part of the Grade 3 Science curriculum, Plant Growth and Changes (which can be accessed at Primary Science Curriculum, ed.gov.nl.ca/edu/k12/curriculum/guides/science/primary/gr3-outcomes.pdf), asks students to study the life cycle of a plant and, "observe and describe changes that occur during the life cycle of a flowering plant through written language, pictures and charts" (Primary Science Curriculum, 2010, p.124). Herein students can use the ready *story* of the plants grown in their garden, from seed to seedlings, to flowering plant to zucchini laden vine to meet the outcomes. Students are later asked to "describe how plants are important to living things and the environment" (Primary Science Curriculum 2010, p. 126). This demands again an appreciation of story, but of a different genre. Rather than centring their stories on the plant, now the plant is part of the broader context of life that nourishes life. Students can quickly understand that plants provide nourishment, via pollen, for bees, which create honey, which provides sustenance to animals and people. Grade 3 students could also see how growing vegetables organically - particularly from composted soil - helps the environment because they aren't using sprays or additives which kill other plants or insects, which in turn can harm other animals. Having understood the stories of the plant, and the plant ecological communities students could find the stories of people whose lives are intertwined with plants.

"Respond to the ideas and actions of others, such as farmers, gardeners, environmentalists, grocers, and loggers, and acknowledge their ideas about the uses and replenishing of plants" (Primary Science Curriculum, 2010, p. 128) Thus, students come to find the stories not only of people, including themselves as urban gardeners, but also of plants. They will come to see that we, as a community, bring often divergent ideas to the great table of humanity about how we deal with our plants and their ecological networks.

Having worked in the garden, listened to the stories of the plants themselves as gardeners students can perhaps have a keener appreciation and understanding of these many stories and the multiple truths they contain. Here lessons about farming the land sustainably, as put forward by Fukuoka and Wendell Berry might resonate. Such hands-on learning would also compel students to see the conditions which best aid in the growth of plants: sunlight, water, soil, nutrients and warmth. This makes the movement of the seasons, from summer to fall, winter into spring all the more poignant in that the garden itself is the silent teacher, subject as it is to the vicissitudes of Newfoundland's wet and windy weather. At the core of such lessons are the student descriptions of how plants are important to living beings and the environment which will resonate as genuine learning when coupled with working in the gardens. Such work brings forth the notion that they have experiences in the outdoors with which they can inspire and educate their classmates, and indeed teachers.

In Grade 4 Life Science: Habitats (accessed at Elementary Science Curriculum, 2010, ed.gov.nl.ca/edu/k12/curriculum/guides/science/elementary/gr4.pdf) students look their effect on animal, plant and human lives. Students are asked to conduct research specifically upon animals and plants, and their interactions. Students are asked in an

outcome subsectioned Habitat and Populations "to identify their own and their families' impact on habitats, and describe how personal actions help conserve habitats" (Elementary Science Curriculum, 2010, p.28). In the context of the compost and garden program students might see how composting organic wastes could be beneficial to habitats in that compost provides nourishment for a host of lifeforms - microbiotic, fungal, insect and mammalian - as it is turned from waste back into soil. As well, students could examine how composted soil can be reintroduced into gardens and provide invaluable nourishment to seeds that blossom into vegetables like potatoes, cauliflower or zucchini squash. Students might then contrast their use of composting and gardening, which has a positive impact on habitat, with what they do at home, which may or may not have a positive impact. In Collecting Scientific Information Using Models of Natural Habitat students are expected to, "construct and/or maintain a model of natural habitat, and use it to make observations and collect information about organisms in this habitat" (Elementary Science Curriculum, 2010, p.32). The compost bins and garden provide ready-made natural habitats from which it is a straight-forward matter of venturing forth to collect information. Merely removing the top of the compost bins brings students into direct contact with a host of life forms. Depending on the season students might encounter bumble-bees pollinating zucchini flowers, beetles roaming the shady underside of potato plants, rabbits scurrying about in the relative safety of dawn or dusk for a nibble on a kohlrabi bulb. Organic gardens not only nourish human lives but celebrate the diversity of life around us. Having experienced the compost and garden up close students might, "suggest improvements to the model of the natural habitat and make it more realistic and habitable for organisms" (2010, p.32). Understanding that compost happens

both under anaerobic conditions - that is, in an oxygen-poor atmosphere - and in oxygen-rich, or aerobic conditions students might suggest one is more conducive to the promotion of various organisms. For such a comparison to take place students must be exposed to both variations of compost. Students might also compare organic farming, found within the school project, with industrial farming and make conclusions as to which promotes organisms better, for all round benefit of plants, animals and humans. The compost and garden project becomes here the resource for investigation.

Newfoundland was reasonably successful up until the mid-twentieth century using small-scale, local, organic agriculture to supply the green vegetables and potatoes islanders would have depended upon to supplement their diet. Yet we don't, as Hilda Chaulk Murray describes, compete well in an industrial agricultural context, nationally or globally, because Newfoundland suffers from a lack of suitable land and by its relative isolation geographically (2002, p. 263). Students cannot make such a comparison without having the opportunity to experience a garden and/ or compost bins up close and personally. Therein lies the opportunity to make connections with habitats, not only as a contemporary issue of environmental importance but to a historical continuity of using the land around us sustainably. By which I mean making sure that the soil and habitats are looked after for use not only today but for successive generations of farmers.

That such lessons might be beyond the scope of Grade 4 students is belied by my own experience in getting the Grade 4 students at St. Bonaventure's College to take over the composting part of the project. Over two lessons I went into their class and brainstormed the importance of composting, in lessening our environmental footprint as a school and the opportunities composting provided for helping the soil and plants.

Students showed great insight into the possibilities for compost to provide invaluable nutrients to plants. They did this by making connections between the curriculum and stories of their parents' forays into vegetable gardening, sharing humorous tales of near-successes that degenerated into gargantuan failures. They clearly understood that compost is part of the food chain, the interconnected web of life to which they themselves are part. In losing compost we lose the nutrients in our gardens and suffer accordingly. This understanding, alongside their energy and *joie de vivre*, made their contributions all the more powerful.

Junior high and high school students take a bum rap for lethargy and apathy. Today's generation are accused of environmental ambivalence, their brains befuddled by hours in front of video games, social networking sites and texting. While it would certainly be a stretch to suppose that all students are interested in gardening and/or composting, within the context of the compost and garden program at St. Bonaventure's College we have had a vocal minority participating willingly on their time - after school, evenings and even weekends - to make the program successful. There have even been moments of transcendental fun at getting dirty, at uncovering potatoes from the ground and eating carrots, sweet and crunchy, newly picked. We need to make such moments available to adolescents if, as a society, we wish to balance lives between technology and natural environments. That is, what Robert Pyle terms "nature literacy" *must* again become a "fundamental educational objective" (2007, p. 252).

In Grade 7 Science, Unit 1 students look at Interactions Within Ecosystems (accessed at Grade 7 Science Interim Curriculum Guide, 2010, ed.gov.nl.ca/edu/k12/curriculum/guides/science/grade7/unit_1_grd7_science_edits_june2

010.pdf). In looking at the Relationship Between Science and Technology they are asked to "provide examples of scientific knowledge which has resulted in the development of technologies" (Grade 7 Science Curriculum, 2010, p.21). Within the context of agriculture there are two distinct scientific-technological examples: the industrial-agricultural example and the organic/ local agricultural example. In examining the industrial agricultural model students might note the success of the Green Revolution, wherein with the aid of pesticides and new seed varieties crop yields rose sharply in the 1960's (Myers, 2005, p. 66). However, this reliance on external imports constitutes a financial burden "which often reduces profit margins, despite the increase in yields. In industrial countries, farmers are now tied to producing as high yields as possible in order to maintain the increasingly small margins necessary for financial survival" (Myers, 2005, p. 30). While science and technology have succeeded in learning a lot about how plants grow, and in developing pesticide-resistant crop varieties, this has not resulted in more food after the initial success of the Green Revolution, or in more nutritious produce. Crops grown with synthetic chemical fertilizers grow more quickly and develop shallower roots because nutrients are available to them at the surface of the soil. Because they grow so quickly, without the need of deep roots they accumulate fewer nutrients from the soil. As well, without the need for composted organic matter in the soil per se, those nutrients are not present in the crop-yielding plants of conventional farms (Pollan, 2008, p. 120). Students, having watched *Food Inc.* might grasp such shortfalls of industrial agriculture relatively easily.

Organic/ local farms tend to be smaller in size, growing a variety of crops. Such farms often make use of "green manure" - or cover crops of clover and rye which are

tilled back into the soil where they break down, providing nitrogen. Such farms also make use of composted organics, including manures. Again, these provide nutrients that revitalize soil and plants both. According to Masanobu Fukuoka, "soil left to itself maintains its fertility naturally, in accordance with the orderly cycle of plant and animal life" (1978, p. 34). This is not a departure from scientific understanding of the land, or the use of technology. Rather, we need to revise our definition of technology herein. F.H. King, an American soil scientist in the early twentieth century found that Chinese, Korean and Japanese farmers were capable of feeding nine times as many people off an acre of planted land compared to Americans. This was at a time when American farmers were following relatively benign agricultural practices towards the environment. This intensive, organic farming demanded that everything be recycled back into the land-plants, night soil, even clothes. Furthermore, farmers made best use of the land - rearing fish in irrigation canals, growing vegetables beneath orchards, and the inter-planting of a variety of crops, for example cotton with wheat, to mutual benefit to both crops. This meant that farmers had pest control on site (fish feeding on insect larvae), no superfluous land use needs and a keen understanding of which plants grew to mutual benefit which could only come about from protracted exposure to the land and experimentation (Myers, 2005, p. 40). It was this generational process of experimentation, documentation (albeit, passed along orally) and understanding which allowed lands in near continuous use for forty generations to be among the most productive farmlands in the world.

Crops grown on organic farms, notes Pollan are forced to fend for themselves and thus produce "phytochemicals - the various secondary compounds (including carotenoids and polyphenols) that plants produce in order to defend themselves from pests and

diseases, many of which turn out to have important antioxidant, anti-inflammatory, and other beneficial effects on humans" (2008, p. 120). Thus, in seeking to maintain productive lands for increasing numbers of people, farms in China, Korea and Japan managed to stumble upon the necessity of composting, making use of the technology available to them to control pests and promote soil fertility while (inadvertently, perhaps) creating more nutritious food. Such lessons as described here become all the more powerful when students are able to work within an organic farm context. Furthermore, the above lessons also allow students to, "describe how matter is recycled in an ecosystem through interactions among plants, animals, fungi and microorganisms" (Grade 7 Science Curriculum, 2010, p.38).

Environmental Science 3205 (accessed online at [Environmental Science 3205 Curriculum Guide, ed.gov.nl.ca/edu/k12/curriculum/guides/science/envsci3205_Unit_3.pdf](http://Environmental%20Science%203205%20Curriculum%20Guide%20.pdf)) asks students to look at Forestry Ecosystems, and either Mining or Agriculture, often within a Newfoundland context. In the case where a garden site and/ or compost bins are available the following outcomes might provoke students, and teachers, to utilize said sites to fully develop them. In the example of Specified Curriculum Outcome (SCO) 3.58 students are asked to, "investigate the use of plastic mulch as a method for improving plant growth" (Environmental Science 3205 Curriculum Guide, 2010, p.128). While much has been made of organic agriculture's move to make itself less reliant on petroleum-derived pesticides and fertilizers, the use of plastic mulch represents possibilities for vegetables which our program has made use of. Attracting sunlight, the mulch helps retain moisture and heat in the ground and thus promotes plant growth. Students could easily compare

plants grown without plastic mulch to those grown with, seeing the possibilities for crop-development in a heat-challenged province like Newfoundland.

SCO 3.7 asks students to, "explain the role of Environmental Farm Plans in promoting sound environmental farm management" (Environmental Science 3205 Curriculum Guide, 2010, p. 130). In short, how are farms trying to become sustainable? Within a local economy where environmental impact is measured acutely by the quality of water, the nutrition provided by the produce and the health and well-being of the soil - and where small-scale farms growing a diversity of crops in a complimentary fashion can flourish - this is a very pertinent question. It leads into a larger debate about the nature of agriculture in Newfoundland - which can only be a good thing as less than 3% of the province's land is allocated to agriculture and only 3% of the workforce is meaningfully tied to farming - which includes aquaculture. Further, this SCO ties in directly to SCO 3.71 that students "recognize soil as a renewable resource" (Environmental Science 3205 Curriculum Guide, 2010, p. 132). If we do not protect the environment, often precarious due to severe climactic conditions and geographical chance, then by farming too intensively we may well ruin the soil for future use.

In looking at the science courses altogether - and the subjects examined here are just a snapshot - I think it is important to keep Stephen Jay Gould's words in mind: "We cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well - for we will not fight to save *what we do not love* [author emphasis]" (Orr, 1992, 43). Love isn't objective yet we could say that without love science wouldn't be propelled forward, would not seek new avenues of research. "Science, at its best, is driven by passion and emotion" (Orr, 1992, p. 44). In

allowing students the opportunity to connect, physically and tangibly, with the world through gardens and compost we enable them to see and connect with the world in the most intimate way. This fosters understanding, a desire to learn, a willingness to seek out new avenues for agricultural growth for mutual benefit. This is love.

5.5 Humanities

"Nature is the true home of culture."

Bob Henderson (2007, p. 149)

Schools operate within the funk of growing up. They are immersed in the sweat, and sometimes the stink of carefree exuberance and energy, the turbulence of adolescence, the frustrating distractions which present divergent curriculums to students - and indeed the rest of society. Yet lingering beneath the surface is a desire to be part of something greater in sum than its parts, to be part of society as an individual, as "a person undivided from the whole - a meaning arising from an intuitive and spiritual understanding that richness and uniqueness emerge from deep connectivity" (Selby, 2002, p. 83). The Humanities - history, literature, religion, philosophy - examine the human condition. In essence they are comprised of the manifold lessons of growing up, falling in and out of love, aging. Done properly such courses can allow connections - between students and the curriculum, students and teacher, school and community - to be fostered through peak experiences wherein we, "cultivate inner journeying within our formal learning programs... which speak to mindful, still, and slow learning as a counterbalance to the packaged rush and treadmill of transmission/ mechanistic learning and the swift-paced quality of much learner-centred learning" (Selby, 2002, p. 87).

Examining not only the human condition, but that of life writ large in

contemporary society informed by its historical roots through experiences of their localities, their bioregions, students learn, "the value of nature life/ outdoor life... that will help lead to lifestyles characterized by greater harmony between nature and humans, and to developing responsible and well-rounded people with the ability to co-operate in the local, as well as global community" (Dahle, 2007, p. 31). In utilizing the garden and compost program within the humanities we can allow for powerful educational lessons to spring forth. Studies of Newfoundland history, of contemporary poetry and/ or religion are allowed to blossom to their full extent within a physical, tangible experience of gardening and/ or composting.

The Kindergarten to Grade 2 Social Studies curriculum (accessed at Kindergarten-Grade 2 Social Studies Curriculum Guide, ed.gov.nl.ca/edu/k12/curriculum/guides/socialstudies/k2/gr1.pdf), Unit 2 looks at Environments. SCO 1.2.2 states that "students will be expected to describe how people depend upon and interact with different natural environments" (Kindergarten-Grade 2 Social Studies Curriculum Guide, 2010, p. 110). Thus they might "give examples of how natural environments influence human activities". This helps focus students to the realities of life in Newfoundland, where agriculture has often been described as marginal due to a damp, cool environment and the geographical happenstance of being an island in the North Atlantic, subjected to high winds and rains which scour away at the soil. Yet early European settlers came to Newfoundland, in part, to farm and many areas around metro St. John's were once agricultural in orientation, which highlights that students "recognize that our way of life and our environment are affected by the presence and use of natural resources." Unit 4: Needs and Wants builds upon this notion. 1.4.2 "Students

will be expected to demonstrate an understanding of the factors that influence how needs and wants are met" (Kindergarten-Grade 2 Social Studies Curriculum Guide, 2010, p. 152). Specifically, students should "recognize the need for people to co-operate with each other in their community to meet their various needs and wants" (Kindergarten-Grade 2 Social Studies Curriculum Guide, 2010, p.156). This means that students could grasp the need in today's world for a helping hand when plucking carrots from the dirt on a foggy morning through the tangible experience of having plucked carrots, but also see the historical continuity of helping family and neighbours harvest vegetables in the past. It made the job easier, and brought people together.

Grade 8 Social Studies (accessed at Newfoundland and Labrador History- A Curriculum Guide, ed.gov.nl.ca/eds/k12/curriculum/guides/socialstudies/gr8/unit2_33-52.pdf), which looks at Newfoundland history, presents an opportunity to bridge the project with curriculum, *friluftsliv* with the academic. For example, in Unit 2: History as a Story of People students are expected in SCO 2.3 "to demonstrate an understanding of the economic context of lifestyles of Newfoundland and Labrador peoples in the 19th Century." That is, 2.3.1, "describe the impact of the physical environment and climate on how people made a living" and 2.3.2 "define the term 'subsistence economy' " (Newfoundland and Labrador History, 2010, p. 40). Newfoundlanders are proud of coming from a heritage where people depended upon their own skills, and those of their community, to survive and flourish. But the term subsistence economy has little meaning to most of today's students. Nor does the notion of climate and geography impact largely on many jobs offered in Newfoundland today. But it would have mattered to people in the 19th Century living in Newfoundland, would have impacted their vocations.

Mired in fog, blasted by rain and winds, prone to late-spring frosts and early autumn freeze-ups - indeed, all the peculiarities of climate one might expect from an island shorn from the North American continent and perched in the flow of the frigid Labrador current - the growing season in Newfoundland was, and is often wanting. Genuine understanding of such a truth comes about from working within the local environment and climate, breaking in a new garden and planting potatoes, turnips and cabbage. Nursing them to a state where they might see you past the lean months of March and April. Seeing the possibilities for growing one would also find need for storing said produce, usually in a root cellar to protect it from marauding rodents and rot. Many such root cellars exist still, and the act of restoring and/or creating one adds further to student understanding of what it meant to be part of an economy where every calorie counted and saving them meant living into the coming year. This develops a keener appreciation for such outcomes through experiences offered, admittedly on a limited scale, of working the land.

Nel Noddings contends that, "children enjoy hiding in thickets and under shrubs. They like to poke round for worms and bugs. It has been my experience that they also like learn the names of plants and insects - as long as the fun of learning isn't ruined by some sort of test." This natural inclination towards the wider world is, to her mind lost in schools that "either ignore critical issues entirely or fail to provide the experience necessary to apply critical thinking usefully" (2006, p. 168). Alas, it has usually been the latter such that students, teachers and the curriculum are likely to be found congregated at extremes - either tree huggers or tree slashers, adamantly set against the *status quo* or firmly entrenched within it - as to their relationship with the natural world. "The basic

lesson is to strive for balance and to welcome those creatures that help to preserve it so that extreme measures will rarely have to be used... Finding and using language that confers respect while it argues for a point is hard work. It helps to believe that we may learn from those with whom we differ" (2006, p. 167). For critical thinking to work, Noddings argues that students need information, from all vantage points. We need "passionate personal engagement" balanced between, as educators and facilitators, rigid control of strict classroom management and being too open wherein "students will content themselves with a destructive form of criticism and become skilful but unfeeling bystanders" (2006, 33).

Balance is the key to unlocking a healthy, critical debate within our schools. But so too is the experience of something necessary to engage, critically or otherwise with a subject. The garden and compost project is a means of engagement with the world within which we all must operate. As critical education is a much-celebrated scholastic endeavour, particularly within senior high school, it is important, as Noddings argues, to engage our students with information from all vantage points as well as provide experiences that they may find all subjects, humanities, maths, sciences relevant and related in some way to their own experiences.

English 3201 is a public examination course (accessed at [English 3201 Curriculum Guide, ed.gov.nl.ca/edu/k12/curriculum/guides/English/eng3201/co_A.pdf](http://English3201CurriculumGuide.ed.gov.nl.ca/edu/k12/curriculum/guides/English/eng3201/co_A.pdf)). As such, this course can carry a near unassailable curriculum from which no self-respecting teacher would deviate, the fear being that students would become confused and distracted by a peripheral curriculum tool. Yet, by shadowing the exam too closely such courses often become dull and lack the flair which energizes students, keeps them

coming back for more. Roger Deakin in *Wildwood* recounts journeys within England's New Forest as a sixth form student, studying Botany and Zoology

"an extraordinary educational experiment... where each generation of us sixth form naturalists would return there again and again and taste the intoxicating pleasure of exploration and discovery in the wild for ourselves. Each of us had a particular project, literally a field of inquiry, and the work we were doing was genuinely original... What we discovered was particular to the place, and, best of all, belonged to us" (2008, p. 21).

Here then we return to place as a means of critical access. "Through reading the world (or the places in the world one knows) as "political texts" teachers and students engage in reflection and action - or praxis - in order to understand, and, where necessary, to change the world" (Grunenewald, 2003, p. 5). Deakin closes his reminiscences about his schoolboy days by noting that even their teacher, a man who tried to be about an "objective, scientific approach...was himself so full of enthusiasm and passion for nature he could never hide his own strong emotional attachment..." (2008, p. 28). In seeing our project, in a place, as an opportunity for engagement, of reflection and action, we also allow students to let their enthusiasm for it to speak through their work.

While I am not suggesting that all students would be engaged with a garden project, I do think when the opportunity to examine them through course objectives is allowed that both the course and project can resonate most with students and teachers. For example, in Unit 4 "students will be expected to select, read, and view with an understanding a range of literature, information, media and visual texts" (English 3201 Curriculum, 2010, p. 12). At the heart of this outcome is culture itself, and how we define

it through literature. The novels and essays of Wendell Berry, Barry Lopez, Thomas Berry, Michael Pollan and Bill McKibben carry forth a message of decay within our consumer culture best addressed through action, even better if it is local. Which brings in SCO 4.3 “articulate their understanding of the ways in which information texts are constructed for a particular purpose” and 4.4 “use the cueing system and a variety of strategies to construct meaning in reading and viewing complex and sophisticated print and media texts” (English 3201 Curriculum, 2010, p. 12). These outcomes can be all the more powerful after having students *in situ* at the gardens, working with their hands. Here then they find a connection between what they read and what they have done. This can help students critically examine the world in which they live and operate, empower them as citizens in their own right.

When students are asked, “to create texts collaboratively/ independently using a variety of forms for a range of audiences/ purposes” (English 3201 Curriculum, 2010, p. 26) they can find opportunities in writing and developing stories, plays, theatrical presentations, poems and scripts to explain the Compost and Garden Project and its mechanics - the placing of seed into soil, the feel of the wooden-handled pitch fork as the dark soil is turned over to reveal lovely golden potatoes the size of one’s fist - to a wider audience for a myriad of purposes. It can be inspiration for a creative writing assignment, the backdrop for a debate on industrial farming as compared to small-scale gardening, the guideline for an essay on contemporary and historical farm techniques, and so on and so forth.

Grade 7 Religious Education (accessed at Intermediate Religious Curriculum Guide, ed.gov.nl.ca/edu/k12/curriculum/guides/religion/grade7_9/sec3_gr7.pdf) SCO 6.1

asks students to “explore creation stories as found in selected living belief systems” (Intermediate Religious Education Curriculum, 2010, p. 50). Therein students begin to compare and contrast such stories, to hopefully understand that belief can help us better appreciate the world in which we live within. That is, according to Thomas Berry

“the human mind ascends to the contemplation of the divine by rising through the various grades of being, from the physical forms of existence in the earth, with its mountains and seas, to the various forms of living things, and so to the human mode of consciousness, then to the soul, and from the inner life of the soul to God... Initiation into the basic human and Christian values was initiation into this cosmology. Christian spirituality was built up in this manner. The mysteries of Christianity were integral with this cosmology” (1988, p. 129).

Creation stories came about as people and communities tried to grapple with the miracle of life, of being conscious of it and beholden to a greater power than their own. This leads, in SCO 6.2, into “an appreciation for how all things in creation are interrelated” and the development of an “awareness of how the teachings of selected living belief systems concerning stewardship of the earth”, (Intermediate Religious Education Curriculum, 2010, p. 26). John Hart argues that it is in *relationships* with, and through nature that we come to see the divine all round us (2006, pp. 121-122). Making use of the garden and compost program readily allows teachers to tie relationships with our surrounding world to the wider experiences of students.

That the Ignatius Jesuit Centre in Guelph, Ontario is housed on a 200-acre piece of land, including the Ignatius Farm which practices organic principles, is proof that religion can make use of nature and mankind’s relationship with it. Lorne Jamieson, the

Ignatius Farm manager notes that, "regardless of faith, these fields evoke a remarkable sense of peace and divine purpose in all those who humbly shepherd the lush growth to its full potential" (Ignatius Farm, 2010, ignatiusguelph.ca). Farms create opportunities for people to both commune and work with nature, to be in the throes of life. Actions have direct meaning in growing. But such physical lessons can translate into spiritual insight. After all, in recognizing the spiritual we are tapping into the totality of the human experience (O'Sullivan 2002, 10). Working on a garden, aerating compost which will become soil we are also reminded that though religion poses timeless questions answers need not be elusive. Indeed, they can be downright simple, summed up by a dinner grace my family has said for generations:

For health, and strength,

And daily food

We praise Thy name

O Lord, Amen.

The garden taught through Religious Education offers an element of tangible divinity, of getting one's hands dirty and fingers calloused in celebration of a greater power than ourselves. The physical movement is the yin to the intellectual complexity of the creation story's yang.

5.6 Summary

The garden and compost project presents students and teachers with unique insights to their local place, its culture and history, its geography and climate, its people. To not extend this project into the classroom is to short-change the educational

possibilities. In speaking to the curricular opportunities of this project in the classroom I have offered a cross-section of examples of course outcomes, from primary through to senior high school where teachers and students could derive lessons directly from the project which are relevant to or even augment the listed objectives.

At the same time, by incorporating the garden, with its lessons in soil, ecology, climate, history, culture inherent in it we are responding to David Orr's contention that, "the kind of education we need begins with the recognition that the crisis of global ecology is first and foremost a crisis of values, ideas, perspectives, and knowledge, which makes it a crisis *of* education, not one *in* education" (1992, p. 126). Simply, these examples lay out a rational, although not comprehensive, base from which enterprising teachers and students can work out critical, transformative lessons for these and other outcomes and subject areas through getting fingers dirty and calloused in the name of education and watching as the compost nourishes the soil, and in turn the plants and vegetables. Through such work do students, and teachers, become engaged with and within their communities.

Chapter 6: Lessons and Future Directions for Gardening and Composting in

Schools

The SBC garden and compost program began simply. Along the way we experienced highs and lows. There were days and weeks of frustration, when fruit flies congregated, meetings piled up without resolution and weeds thronged our potato beds. But there were moments of pure joy, when the division between teacher and student blurred away and there was simply the excitement of being involved in something larger than oneself. Our second year harvest was one such event. Students from Grade 7-12 showed up. Although we had spade and hoes available, many student preferred to work 42names of certain vegetables, argued about whether they were looking at a kohlrabi or cauliflower, were amazed at the size and physical resistance of the turnips. The hours fell away and in the end we filled my car with zucchini, potatoes, onions, herbs and carrots.

We have come a long way in a relatively short time. We have learned a lot. Organic gardening requires care and empathy for our surroundings, the minute ecosystems which support all life. Composting closes the circle of life, reusing organic wastes to create soil anew. Such lessons may be derived from place-based education, transformative pedagogy, critical education and sacredness. But for students the garden program means a fuller comprehension of how the world works and an appreciation of the diversity of life around us. This understanding includes both scholastic and life learning.

Looking back on the questions which have driven this dissertation:

• *What influence can a Composting and Gardening Project have on a school community's curriculum, both in the classroom and outside of it?*

Could the St. Bonaventure's College Composting and Gardening Project offer other schools a model of working with community partners, local experts and government agencies that they could emulate?

I see that the garden has had a profound influence on the school community, and has the potential to hugely influence how the provincial curriculum is taught when it is used more fully in classroom instruction as it is at Martin Luther King Junior High's example described in *The Edible Schoolyard*. It also helps students understand that through gardening and composting they are actively mitigating one of the most pressing concerns of our times- climate change. In this light they are becoming active citizens, which I will explore in further detail below.

I believe that our program offers other schools and community groups a pertinent example of what can be achieved when one begins asking around. We have received nothing but positive reinforcement, even when our proposals were denied. The question was never that the gardens or compost bins were bad, *per se*. It was rather the unwanted attention they might bring upon themselves. This required us to do more research in order to effectively combat these misconceptions. How our program might specifically be of value to school and community groups is taken up in the second section.

Finally, through this research process I became aware of some avenues for further research. Sometimes they were directly related to this program, at other times indirectly. They include the need for experiential learning within the contemporary classroom, of which farming is one form; the pressing requirement for more nature literacy to compliment the current rise in technology, science and mathematics as the *lingua franca* of western education so that students and teachers can find the manifold and

complimentary connections which exist between nature and the human world through the commons; finally, the need for vocational education, like agriculture, so that young people are prepared to become informed, active citizens in the truest sense. In this way students would engage with the world having been preparing specifically for a career in farming through apprenticeship and intergenerational learning on small-scale, local, organic farms to help provide Newfoundland not only with the food it needs but the education to deal with the growing storm cloud of climate change. This is the third section.

6.1 Active Citizenry

David Gruenewald notes that, "curriculum geared toward exploring places can deepen empathetic connections and expand the possibilities for learning outward" (2003, p.8). David Orr charges that by bringing farms into schools students learn, "the values of discipline, physical stamina, frugality, self reliance, practical competence, hard work, cooperation, and ecological competence" (1992, p.120). These are important considerations. Both Gruenewald and Orr's contentions also add up to make students, and teachers, more aware of their surroundings. Awareness brings with it concern and a willingness to work to protect them. This is active, engaged citizenry. By working in the garden and compost program I contend that students are more aware of the world around them, and therefore more willing to stand up for it.

"...[D]efinitions of school achievement must begin to take account of the social and ecological quality of community life" (Gruenewald, 2003, p.10). Through working with the garden program we hope that students can see the oppression where some can afford fresh vegetables, and others cannot. They might also notice that by not knowing

about their ecological community people are ignorant to the harms done to it. When schools take into account the health of communities and how students have helped foster it we are promoting not disengaged passivity, but engaged and informed activism. This has been one of the primary successes of our program. Having students give up their time on weeknights to attend meetings, on weekends to lead and attend workshops about gardening and composting, in speaking to community groups and neighbourhood associations have I seen the tangible possibilities for engaged citizenship.

6.2 Lessons

Our program did everything the hard way. But in walking a journey for the first time the path often grows faint, side trails beckon. The journey meanders. I believe such meanderings were crucial to the success we have enjoyed. Through them we connected with different and diverse groups who shared a common interest in local, organic gardening, albeit for many reasons. The Sierra Club, Conservation Corps of Newfoundland and Labrador, The Organic Farm in Portugal Cove, Food Education Action St. John's, Sisters of Mercy, the Wellness Coalition-Avalon East, Can-Do Productions- each of these groups have offered support and encouragement to our program. Sometimes financial grants were offered. Whatever the form of encouragement it required a willingness to meet with different groups, to make phone calls, send emails and compromise on our vision of the program to allow for the visions of others. But the act of meeting, networking and dialoguing provided us with the resources and education we needed to finally get the go-ahead for an on-campus garden. Just when we were sure our program was floundering someone would suggest an article, that we get in touch with someone because they might be interested, or they had information which might prove

helpful. Furthermore, our program is all the more successful because it has so many partners. We become not just a solitary group gardening and composting, but part of a community. That is the lasting lesson any group hoping to emulate our experience should take away.

6.3 Future Directions

Friluftsliv asks that we let ourselves experience nature on its terms. It can be an active experience- like skiing or running- or a quiet one- like watching a sunset, or weeding a garden. But we all learn more about natural places by being allowed to be in-place in them (Wattchow, 2007, p. 245). Experiential education concerns itself primarily with active engagement with the world as the best means of learning. In my own experiences, the most genuine learning lessons have come when I have been able to see and experience something, and then read about it. Or vice versa. Merely watching a video, or reading about it, doesn't stick. I wonder how many others learn as I do, not simply visually or audibly, but also through kinaesthetic experience?

There isn't a shortfall in experiential educational literature. But I would suggest that there is a shortfall in literature which promotes vocational education and nature literacy, such as *friluftsliv*. Farm work is not learned by taking a two year course. "To spend one's life farming a piece of earth so passing [in time] is, as many would say, a hard lot. But it is, in an ancient sense, the human lot. What saves it is to love the farming" (Berry, 2008, p.516). In those two sentences Wendell Berry sums up the farming-educational experience. The lessons learned from one year to the next can be hard ones. Berry himself has caused undue harm to his place, the Appalachian hills of Kentucky, as he learned the contours, the give and take the land and ecology can give to a human

fiemer (2008, p.515). By making farming part of the curriculum, as embedded within the current school system or as a separate farm school, we offer students the lessons of past and present farmers. We can hope that their reason and ingenuity will find new ways forward, in step with the dictates of the natural world because they have been allowed to experience it on its own terms. This is the next step needed, to marry farming to nature, and then back to education.

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