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Curriculum and the Elements of The Earth:
Deconstructing Sustainability and Reconstructing
Responsibility

Elizabeth Alford Pollock

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Curriculum and the Elements of the Earth: Deconstructing
Sustainability and Reconstructing Responsibility

by

Elizabeth Alford Pollock

(Under the Direction of Daniel E. Chapman)

ABSTRACT

In October, 2009, I attended a presentation on Sustainability where the argument was made this concept is an issue for government and administrative agencies. The problem with this summation is in its exclusion of individuals existing outside of these agencies who interact with their environment on a daily basis. This exclusion potentially encompassed an extinguishing effect in that it closed off the term to multiple interpretations and possibilities I believe sustainability possesses; a "closing" that does not provoke the liberating nature associated with more open forms of dialogue and engagements. My dissertation explores the myriad ways sustainability can be interpreted outside of what was presented as authoritarian agencies. I seek to open the term to contestation in ways that demonstrate its potential for maintaining economic, patriarchal and scientific narratives.

Through this "opening up" of sustainability, I engage in a critique of the term as an effort that maintains these structures through the economy of accountability. Accountability is becoming its own dominant narrative as it works its way through science, governmental policies, corporate actions, and educational settings. The field of education is currently experiencing the effects of accountability that is reducing children, not to products associated with the factory model metaphor, but to *by-products* and secondary concerns to the line being drawn between teachers and the accounting device.

This line is also evidenced in sustainability as it is being drawn between ecological and environmental issues and the authoritative agencies that will be discussed, thus reducing those who were excluded in the presentation that evening to *by-products* and secondary concerns of the lines being drawn between sustainability and the authoritative agencies who are constructing environmental accounting devices. By exposing this link between sustainability and accountability, I hope to redirect our attention from narratives of environmental and educational accountability to issues of ecological and curricular *responsibility*. I also demonstrate how an ecopedagogy constructed out of a love and generosity for the ecological interconnections we experience may lead towards more responsible

approaches regarding our children in particular and the environmental and ecological future we may pass down.

INDEX WORDS: Accountability, Curriculum, Ecofeminism, Ecology, Economy, Ecopedagogy, Eco-postmodernism, Environment, Maintainability, Responsibility, Sustainability

Curriculum and the Elements of the Earth: Deconstructing
Sustainability and Reconstructing Responsibility

by

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Sustainability and Reconstructing Responsibility

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Dedication

For Emily and Abby

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Prologue

Building the Roots of My Research

Auto/Biographical Roots-

I am a child. I am sitting at the breakfast table with a bowl of Cheerios awaiting its consumption. It is my initial descent into scientific methodology, challenging Newton's law of inertia. I ever-so-gently inch the bowl towards the edge of the table to see just how close I can get before it crashes rebelliously to the floor. Always the keen observer, my father watches in anticipation until just the precise moment when he yells. "Don't do it!" Glancing up, I smile at him, and with one swift nudge of my finger, the bowl crashes to the floor.

In retrospect, I now view that incident as both my first cognizant act of resistance and the beginning of a thread of interconnectivity weaving throughout my existence. There was a giant, thirty-foot tall Magnolia tree in my backyard that welcomed me with open arms every time an act of rebellion forced me into hiding. Never one to travel alone, I was always accompanied by my coveted collection of Encyclopedia Brown and Nancy Drew novels, intent on creating a delicate balance between gravitational forces and literary paraphernalia.

As I sought to become one with nature, the magnificent Magnolia masking my identity to trespassers who invaded my space from below, I became privy to what Thomas Berry would later

articulate as the "Dream of the Earth" (Title by Berry, 1988). A dream that became so vivid in detail I could no longer identify where nature's experience ceased and mine began.

And then we moved.

So crushed was I at my father's revelation that my beloved Magnolia tree simply would not fit into the moving van left me desolate and wrought with despair. Oh, I tried, delicately disassembling each intricate branch, convinced I could recreate this natural masterpiece in its entirety upon my arrival at our new home. Alas, my quest was a futile one. In an effort to attend to my naturalistic tendencies, my father purchased me a new tree, planted just outside my bedroom window, in hopes I might find comfort in its growth.

In my youthful quest to sustain the life of that tree, I witnessed complete and utter freedom watching its roots reach deeper and further as it grew to new heights. But a strange thing happened; like the tree, I too was growing. Encapsulating those rebellious tendencies emulated in Baba O'Reilly's teenage wasteland, my opinion of that tree began to alter. No longer a symbol of freedom, I began to see it as the captive that it really was, held hostage in the controlled space it was provided. Confined. Or was that me? The evolution of that tree left me questioning the meaning of life for which I found no solace.

As winters evolved into springs and summers, the tree and I growing together, our relationship evolved also, at times reflecting our love and admiration, other times more emblematic of the strife and downright indignation at the other's apparent limitations. Regardless of the feelings of the moment, I could count on that tree to be there, waiting, listening, living. Eventually, I left home for college and my parents moved yet again. Like my childhood, I no longer had access to that tree, but I also no longer needed *that* tree. Somewhere along the way, that tree literally grew into my heart and its physical presence was no longer necessary.

At times when I felt confined by an experience, I would dream of that tree. In my dream, the tree would glare at me with such anger, its branches literally beating me into submission to what, I never knew. It was always then that I would awaken. Other times, when I was experiencing great joy, the tree would return to my dreams, peaceful, swaying in the breeze, chatting nonchalantly about the events unfolding in our world. It was these times when my dreams evolved into my reality, and the conversations we shared would continue unabated into the day. When I married and my husband and I purchased our first and subsequent homes, my vision of what was to come out of each place was always a secondary concern. My first order of business was to plant a tree. The lots of our homes never large enough to

house a Magnolia in all its glory, I settled on Dogwoods and Bradford Pears; the differences playing off each other in ways that enhanced each tree's individual beauty.

Together again, we grew, the trees physically into mature adults with blooms each the size of a demitasse, myself professionally as I settled into teaching and the joy of experiencing new faces, new feelings and new forages into learning. For many years, the freedom teaching provided kept my dreams peaceful and calm, allowing the tree and I to engage in love. But a strange thing happened; like the tree that changes its appearance through the seasons, so, too was teaching. Encapsulating a postmodern complicating of identity by the musical group *The Who* asking "Who are you," while I was asking who *I* was in what was becoming a hostile school environment, I began to feel the changes set forth by *No Child Left Behind*, the standards and measurements, testing and scripted procedures, more requirements with less resources, as more like a death sentence than an environment for the living. No longer did education seem to work for the benefit of learning and possibilities; rather, it seemed to have exchanged its soul for the benefit of proficient test scores and mindless regurgitation of facts. My dream returned, the tree beating me with its branches until, at last, I submitted my role in the classroom

back to the school, leaving the confinement that had come to represent my last year.

I tell you this not in an effort to romanticize nature, but to attempt to articulate the deeply rooted bond I share with nature. Nature and the environment are not just some topics to be explored; rather, they are an explanation of who I am as a person and how I see the world. The figurative language I use is not just to express my own feelings but a pathway to understanding a literal conversation I have had with the Earth ever since I first learned to climb a tree. The Earth does not desire to speak for me, on my behalf, but has always engaged me in the conversation of living. The conversation was never scripted, always free-flowing. The tree never dictated what the discourse would be about, where the dialogue would lead. And the language and words we used were free to float effortlessly from one signification to the next.

When the time came for me to choose a topic for my dissertation, I gravitated to the environment and the issue of sustainability. Like my initial response of freedom with the tree my father planted for me as a young child, my initial response to sustainability was one of possibilities. The dialogue I had engaged with texts certainly alluded to this fact. But a strange thing happened; like the body of literature on the subject I was accumulating, I, too was growing. Like the

painful regret of a love affair at an end, encapsulated by the sounds of Josh Groban apologizing through the radio waves as he questions his "Broken Vow," so, too was I becoming painfully aware that the possibilities I had anticipated were evolving into ecological and environmental limitations structured around pragmatic revisions of a global, free-market economy. The conversation began to feel confined. Or was that me. The evolution of my beliefs regarding sustainability left me questioning the meaning of that term where my research provided no solace.

As the word developed a life of its own in political discourse through repetitive use by Barack Obama, I began to question what and for whom are we sustaining. Was it progress, growth, the economy through the sustaining of capitalism, ecology through the connections built between the environment and the economy? I began to posit this question to family members, friends, the grocery store clerk, my hairdresser, acquaintances at social gatherings. I inquired with individuals differing in race, gender, and culture and became fascinated as to how a diversity of individuals would depose such similar responses. The majority of responses were always within an ecological context, citing the planet and/or life on this planet as the ultimate goal of sustainability. Probing further, I would inquire that if society could manage to achieve equilibrium

within the Earth's natural constraints, who, then, would we be sustaining the planet for. Remarkably, all responses regarded future generations as the sole heir to any planetary remains we may leave behind. Even Obama reiterated the idea that sustainability was about saving the planet while speaking to a group of farmers in Iowa (2007, video file). These similarities within responses led me to question what events both present and absent were occurring within the ecological debate. Could we be inadvertently perpetuating the destruction of our own conversation while steadfastly believing that our actions were sustaining the very dialogue we engaged? And then something happened.

In the midst of the dialogue I was immersed in, I attended a lecture by Peter Blaze Corcoran (Oct, 2009). Corcoran has built a healthy career advocating for environmental issues and is a primary editor to *The Earth Charter in Action*. This body of work is a result of *Our Common Future*, a report written in 1987 as a declaration of the ethical connections existing between human activity and the environment identified during the United Nations Conference on Environment and Development (UNCED); informally coined the Brundtland Commission (Corcoran, 2005). This report called for a new charter to address these ecological connections. Several years after UNCED, a global consensus was reached and the *Earth Charter* was formalized as a global

initiative striving towards a sustainable world (Earth Charter Website, 2010). In 2005, *The Earth Charter in Action* brought multiple perspectives of *The Earth Charter's* implementation from individuals operating out of various nation/states, U.N. organizations and academic institutions of higher learning. These perspectives reflect the original *Earth Charter's* interconnections between the global environment and the "socioeconomic/political problems" (Kahn, 2008, p. 7), and how individuals cited in *The Earth Charter in Action* have responded to these problems.

The *Earth Charter's* ethical initiative is founded on principles of respect, sustaining the ecological integrity of the Earth, and how these two principles interconnect with issues of social and economic justice, non-violence and peace, and participatory and democratic societies. As Corcoran presented the ideas set forth by the *Earth Charter* and *The Earth Charter in Action*, he engaged audience members by asking their thoughts on how to make the university more sustainable. Responses primarily focused on the usage of compact fluorescent light bulbs (CFL's) and local food supplies for the cafeteria. After a few minutes of thoughtful consideration, however, Corcoran began what I consider to be a series of contradictions through his own interpretation of sustainability.

To Corcoran, sustainability is a policy issue to be addressed by government officials and particular non-governmental agencies (NGO's). He explained that once policy was set, college and university administrations then must assume the role of incorporating policies on their campuses. While he was speaking, however, I noticed some audience members disengaging in his lecture. I had similar feelings as well. Why did he need our input if we had no voice? The dialogue he had created was evolving into a monologue written by him. And this monologue did not represent the democratic or participatory principle set forth by the charter he was discussing.

Corcoran's "top-down" explanation defied all of the readings I had perused that depicted sustainability and environmental issues as a "bottom-up," grassroots movement. His response disconnected an auditorium of living organisms that were linked together through ecology, not policy. But it was policy that Corcoran promoted. I left the presentation that night utterly confused as to how anyone could be excluded from ecology. And those old feelings of confinement began to creep back into my thoughts.

Corcoran's words had created a paradox within my own thinking: one thought left me feeling fragmented from the one constant in my life-the Earth. On the other hand, in an effort to understand these feelings, my other thought credits Corcoran

for changing the way I choose to *question* sustainability. What I seek to understand are the myriad of possible interpretations this word may possess inside/outside of administrative and governmental institutions. What I question, therefore, is what, exactly, are we sustaining? What I hope to accomplish is an "opening up" of this term into the debate. Currently, the dialogue within Curriculum Studies is exploding with conversation and critique of the environment and ecology. But sustainability has yet to be critiqued in such a way that explores other possible meanings outside of the definition provided by the United Nations and the definition Corcoran invoked in his presentation.

As a researcher striving to comprehend the complexities of sustainability, I work within the personal, passionate, and participatory realm set forth by Ming Fang He and JoAnn Phillion (2008), cultivating an "epistemological curiosity in inquiry and life to foster critical consciousness to comprehend and act upon the often contradictory and contested real life world" (p. 3). My research is personal in that it stems from my relationship with a single tree and branched out to encompass a larger world of human existence in conjunction with other life forms that have assisted in the creation of what I call home. It is personal, also, in that by opening up the term to other possible meanings, perhaps my own "Dream of the Earth" (Title by Berry,

1988) may be restored in some fashion, outside of the dominating interpretations currently conveyed.

My research is passionate in that, like my unwitting participants, I too, wish to leave future generations an abundant, earthly inheritance replete with possibilities for living and exploring new ideas that will coincide with future needs. And these possibilities will come only after alternative interpretations have been opened and explored. My research is participatory in that I actively engage in conversation and observe how the people I speak, read and write, as well as my own words, are silently perpetuating a monologue written by a select few. My research is participatory also because the *Earth Charter* is a "people's charter" (Strong, 2005, p.11), and we are the people. Therefore, we already participate in the implementation of this charter through our daily interactions with the environment.

Yet, this participation is where I situate the struggle between those in power positions, who are attempting to define sustainability on behalf of all people, and those outside of these power structures such as myself who are attempting to construct an interpretation of sustainability on our own terms. This struggle is evidenced in the contradiction arising out of Corcoran's text *The Earth Charter in Action*, which calls for democratic and participatory societies, and Corcoran's words in

his presentation, which provoked an undemocratic and exclusionary environment as many participants were outside of the government and administrative entities Corcoran was discussing.

Empedocles' Roots-

To build the structure of my argument, I draw from the pre-Socratic writings of Empedocles and what he termed "the roots of all things" (Longrigg, 1976): Earth, air, water, and fire/sun. To Empedocles, these roots, what would become known as the elements of the Earth, were indestructible and irreducible. All physical entities stemmed from one of these roots and the juxtapositions arising out of the four.

Not to suggest that Empedocles believed these entities remained in a particular state; rather, his finite pluralist perspective forced him to question the gaps in transition that allowed for temporal movements and rests between the roots. Empedocles, discrediting any sort of void in the universe, called these movements *Love* and *Strife* as representations of the myriad combinations and separations arising out of multiple juxtapositions of the roots. According to James Longrigg (1976), drawing from the second-hand source of Aristotle (Empedocles is recorded as writing two essays, *On Nature* and *Purifications*, but out of the five thousand lines written, only five hundred remain. The majority of Empedocles' work is derived from second-

hand sources such as Aristotle and Simplicius), "Empedocles derived his idea of Love and Strife as cosmic principles from his observation that men at times are drawn together by love, whereas enemies shun one another" (p. 434). *Love* invokes a union between roots that *Strife* constantly seeks to destroy. And this dissention amongst the roots prohibits any void from existing, filling the gaps where movement and rests occur.

While the debate surrounding Empedocles' roots is focused on whether he viewed *Love* and *Strife* as corporeal, the existence of the roots themselves remained unchallenged for over two thousand years. And multiple variations of these roots are also evidenced in Buddhism, Hinduism, physics (in the form of the states of matter) and astrology. My own interpretation stems from an ecological perspective in an effort to provide a framework for my exploration into sustainability. Each forthcoming chapter, then (elements, as I shall call them), will build on Empedocles' roots. But each element does not exist in isolation. They are sustained by the persistent influence of the others. As a result, no one element would be truly organic without the impressions of other elements in particular sections.

Element one stems from the Earth, that living organism which houses all living and nonliving entities that construct individual environments. The Earth is used metaphorically to

ground my research within the field of Curriculum Studies. Element two explores the perpetual motion of air. The air is used to depict the constant movement of language and images as new experiences and constructions are made. By drawing on Carolyn Merchant's five ecological ethics and then merging these ethics with David Jardine's translation of water, I demonstrate how these languages and images possess the possibility of betraying us into perpetuating an idea we believe we are advocating against.

Empedocles was known to use fire and the sun interchangeably. In element three, I engage the sun and its ability to light the world so that we may be able to see other possibilities of meaning; specifically how sustainability inadvertently maintains the privileging of a patriarchal society, of science, and how it is working to control the conversations we engage through accountability. Element four stems from water. The fluidity of water has been used by many scholars in the field of Curriculum Studies to depict the fluidity of meaning and curriculum. I engage this metaphor to explore the stagnation of movement provoked by accountability. This exploration will hopefully lead us to a more inclusive conversation regarding ecology and issues of responsibility.

Throughout my research, I began to see a parallel being drawn between accountability and responsibility; a parallel that

treats these two words as synonymous when they actually possess very different meanings. Through this opening of sustainability to issues of responsibility, it is my hope that we may come to see the current limitations being conveyed within educational settings and within the debate via the stagnation I associate with accountability. Through this stagnation, I offer an interpretation of *The Giving Tree* (Silverstein, 1964) as a way to reclaim the call for educational and ecological responsibility from those deemed as authority, whose actions are attempting to redefine the word in terms of accountability, sustainability, and ultimately, maintainability.

Finally, I conclude my writing but not my research in the epilogue, where I open sustainability to a reading through popular culture. While this reading will not be comprehensive in its analysis, I find the popular novel I will draw on an interesting opening for the possibilities of what may come in the debate. Through the myriad interpretations offered in relation to "what are we sustaining," it is my belief we can engage a pedagogy constructed out of a love for other life-forms centered on responsibility; an engagement of the elements that returns our attention to the people involved in the curricular process. It is an ecopedagogy of possibilities.

Element One

Traversing the Landscapes of Ecology and Curriculum

The Earth: third planet from the sun; the habitation of humans and other organisms; surface; solid matter; soil and dirt; a land; a ground; in this case, a "grounding," of ideas in the field of Curriculum Studies.

Mapping the Terrain of Ecopedagogy-

"In what ways do questions of pedagogy interweave with questions of the continued existence of an Earth in the embrace of which pedagogy is possible?" (Jardine, 2000, p. 21). To David Jardine, the answer to this question is love: the love of home, of place, of the self and others. He contends "love, care, and generosity" (2000, p. 22) require the same attention to ecology as they do pedagogy; ecology and pedagogy are so intricately interwoven, this marriage renders it difficult to distinguish between the two. Indeed, when reading Jardine's work it is often difficult to determine who is speaking: himself or the Earth. The connection he experiences with nature is felt on every page, in every sentence, and his love for our planet, our home, our place extends outward to include his pedagogy.

In *A Bell Ringing in the Empty Sky* (2004, 1999; 1998), Jardine draws from the work of Ted Aoki, whom he quotes as saying, "...I come to respect the fullness of silence and I become aware of how silently I participate in the constituting

of that silence. And in that silence, I experience being-one-with-the earth" (Aoki, as quoted in Jardine, 1999, 2004; 1998, p. 262). Jardine utilizes Aoki's sense of interconnectivity, his one-ness with the Earth, phenomenologically to demonstrate the possibility of inquiry. Yet, he tells us, inquiry is not a thing in itself, it is "any thing that requires *everything else* in order to exist" (2004, 1999; 1998, p. 265). Inquiry allows us to move beyond "fixed points" in the world; "fixed points" that, if left unattended, may inadvertently blind us to these connections.

Jardine coined the term ecopedagogy to depict this inquiry into the myriad connections experienced between ourselves and the Earth. Ecopedagogy "is an attempt to find ways in which ecologically rich images of ancestry, sustainability, interrelatedness, interdependency, kinship, and topography can help revitalize our understanding of all of the living disciplines in our care" (Jardine, 2000, p. 3). Through ecopedagogy, Jardine engages the fragmentations occurring in schools and society as sites of exploration *because* of the interrelatedness existing within those sites. He asks:

How is it that we have forgotten that these seemingly most ordinary and mundane of things live in the midst of our language, like nothing else, that they have a living place

in this living place that is speaking and writing...?

(2000, p. 5).

The ordinary usage of language and words as specific sites of struggles are what beckons us to inquire into their ecological interconnectedness to other aspects of living so that we may identify those ancestral, sustainable and topographical connections to our present-day experiences.

Inquiry brings into consciousness, what Marla Morris (2002) calls ecological consciousness "because it is this mysterious something that allows us humans to exist" (p. 571), what we have become blinded to. Like Jardine, Morris tangles the web of anthropocentrism to denote human beings' relation with the ecosystem, not separate from it. In fact, there is no "real" boundary between consciousness and the environment save for those socially constructed that result in the violence that rapes the Earth of its ability to sustain us (2002).

Consciousness is what Angela Antunes and Moacir Gadotti of the Paulo Freire Institute call for also. They contend the intersection between education, space and time is where the relationship between humans and their environment actually occur (2005). Antunes and Gadotti (2005) assert these relationships "happen much more in our subconscious; we do not realize them, and many times we do not know they happen" (p. 135). They believe an ecopedagogy is precisely what is needed to bring to

consciousness these intersections. But consciousness should not invoke an end to the process; rather, it should invoke continuous attention to the liberating praxis Freire advocated for throughout his life.

The intersections that Antunes and Gadotti address is where Freire believed a site of struggle emerges in that one's ever-evolving experience can be one of oppression; but he also believed this site can be one of individual liberation from these oppressions as well. Antunes and Gadotti (2005) suggest "Eco-pedagogy is based upon a planetary understanding of gender, species, kingdoms, formal, informal, and non-formal education" (p. 136). This understanding of the experiences we engage, when conscious of how these experiences can oppress and liberate, become the foundation for understanding these experiences, not only with humans, but with the entire ecological world. It becomes the site where the love and care Jardine calls for mingles with the love of others and the world Freire speaks of in his interpretation of ecology.

Freire believed ecology was a question of ethics. In his last recorded writing, *Pedagogy of Indignation* (2004), Freire shares with his readers the tragic death of a Pataxo Indian at the hands of five teenagers; an individual who at the time of his death was sleeping peacefully in a bus station. According to Freire, these teenagers set Galdino Jesus Do Santos' body on

fire "like a worthless rag" (p. 45), and then informed the police they were just playing.

This tragedy forced Freire to write his last letter in anger, indignation, at what he termed a "devolving" of humanity as opposed to an evolving into more compassionate individuals; a response he articulated in terms of materialism and possessions, consumerism and class. His relation to ecology is worth quoting at length here. He states:

This tragic transgression of ethics [that] has taken place warns us how urgent it is that we fight for more fundamental ethical principles, such as respect for the life of human beings, the life of other animals, of birds, and for the life of rivers and forests. I do not believe in loving among women and men, among human beings, if we do not become capable of loving the world. Ecology has gained tremendous importance at the end of this century. It must be present in any educational practice of a radical, critical, and liberating nature...If education alone cannot transform society, without it society cannot change either (2004, p. 47).

Antunes and Gadotti (2005) follow Freire's path of ecology as a question of ethics in their decision to advocate for the "sustainability values" (p. 135) set forth by *The Earth Charter*. And the sustainability values emerging out of *The Earth Charter*

have been incorporated into another subsidiary of the U.N. called the Decade of Education for Sustainable Development (DESD); the document articulating DESD's goals is *Agenda 21*(2004). While the contents of this document will be explored throughout my work, suffice it to say at this time the intersection between the *Earth Charter* and *Agenda 21* stem from both documents' reliance on the "common future" (*Agenda 21*, 2004, chapter 2; *Earth Charter*, 2010, website) we share as a human race amidst the ever-evolving landscapes of the Earth.

My concern here is that the *Earth Charter* and *Agenda 21* both fall under the umbrella of documents written on behalf of U.N. organizations. I find the U.N. a site of complex contradictions emerging *out of* and *on behalf of* society-at-large. On the one hand, I acknowledge, appreciate and support the efforts U.N. organizations engage to make this world one of peace and non-violence; a world built on equity and social justice. Indeed, the documents listed above directly address many of the inequities emerging out of the world environment. Yet, on the other hand, we cannot ignore how other U.N. organizations such as the International Monetary Fund (IMF) and the World Bank appear to be working in such a way that perpetuates the inequalities the *Earth Charter* and *Agenda 21* advocate against (ways that will be explored in the remaining elements).

If, as Freire suggests, ecology is a question of ethics, and I believe it is, then is it ethical to ignore this contradiction because of the good intentions the *Earth Charter* and *Agenda 21* may possess? Is it ethical to teach with our right hand while ignoring the actions of our left? What kind of pedagogy would that promote? What kind of education? These questions are why I also engage Richard Kahn's interpretation of ecopedagogy because to adopt the values offered by one U.N. organization opens up the possibility of adopting the values of other organizations with suspect ethics if the relationships between the two are not questioned. And if we are to promote ecology as an ethical question, then we have to address these issues and the ecological interconnections existing between multiple organizations within the same body of the U.N. If Freire's work has educated us on anything, it has taught us that individual liberations occur out of a sense of criticality towards our experiences. And this criticality emerges out of the love we have for ourselves, our world and the experiences that emerge between the two. Yet, we have to love these attributes of life enough to question their meaning, their signification, both what is present *and* what is absent from a debate.

Kahn incorporates Freire's call for a more humane world through a marriage of critical pedagogy with ecology in hopes this pedagogy will promote liberation from individual and

collective oppressions being promoted through globalization and imperialism (2010). He tells us:

Ecopedagogy is uncompromising in its refusal to accept the suffering of this one [world] as *de facto*. Thus, ecopedagogy recognizes as anticipatory of a future sustainable society those social, cultural, and political projects that, in however limited a fashion, now alleviate suffering and aggression by working for the forces of life, diversity and lasting peace (ecopedagogy website, 2009).

This refusal means moving beyond a strict environmental agenda to include a more comprehensive analysis of the reasons behind environmental abuses. And Kahn envisions this refusal in the form of an interdisciplinary dialogue between various movements (2010).

Kahn (2010) contends a shortcoming of Freire's work was his "hard opposition to the state of nonhuman animality. This foundational humanistic dualism between the 'human' and 'animal' in fact runs throughout all of Freire's work and must itself be subjected to a reconstructive ecopedagogical critique" (p. 21). While Kahn does not engage in such a critique, he does reconstruct ecopedagogy by incorporating the work of Marcuse in his interpretation. He believes Marcuse can lend a "sympathetic correction" (p. 22) to the Freirian dichotomy by enlarging the classroom to include the lessons we learn in life's classroom.

Kahn (2010) suggests that Freire's work began with education and worked outwards to encourage political action. "For this reason, Freire's work is often tailored within critical pedagogy literature as mainly relevant to education professionals and teachers" (p. 22).

Kahn interprets Marcuse's writings to work in the opposite direction, beginning with the social and political aspects of life that enter the classroom via the individuals who bring with them individual experiences and interpretations of life. Kahn (2010) surmises "the manner in which ecopedagogy is first and foremost a sociopolitical movement that acts pedagogically throughout all of its varied oppositional political and cultural activities is illuminated via Marcuse's influence" (p. 23). This expansion of Freire's work affords Kahn the opportunity to engage in a "planetary understanding" (Antunes and Gadotti, 2005, p. 136) of the ecological crisis we currently face.

But Kahn (2010) does not stop with Marcuse's influence. He also brings the work of Ivan Illich into the fray. According to Kahn, Illich was "intimately involved in the environment and antinuclear movements" (p. 24) and the myriad technologies entering the classroom. Because of Illich's staunch criticism of educational institutions, Kahn believes Illich has been unjustly "written out" of the dialogue (2010). By combining Freire and Illich together, Kahn believes a more dialectical critique can

be offered, where "the positives and negatives of Freire's and Illich's theories are contextualized by present-day needs" (2010, p. 83); present-day needs that address the ecological crisis we currently face.

What is appealing in Kahn's work is his statement regarding sustainability in that he seeks to sustain opposition to a "dominant worldview that tends to formatively gird societal ideology and people's conceptual possibilities" (2010, p. 35). Where I differ from Kahn's view is in my desire to sustain opposition to the term sustainability itself as it trickles down from U.N. organizations into the language engaged by the population-at-large. When examined from this perspective, then sustainability falls prey to the same worldviews Kahn speaks of that bolster these dominating ideologies. Evidence of this can be seen in the similar responses I received from family and community members discussed in the prologue.

I believe a marriage of Jardine's love and care, of Freire's interpretation of ecology as a question of ethics, and Kahn's call for sustained opposition allow for space to address the contradictions arising out of U.N. interpretations. I further contend this marriage of ideas will engage Empedocles' claim that both love *and* strife are needed in order for movement to occur. The movement I seek is one away from dominant forms of knowledge that seem to be encapsulating sustainability. This

movement assists in moving the term itself from out of its hiding place amongst the words in a sentence and into the space of a direct object to be explored.

Long-time critic of Freire's lack of attention to ecological issues is C.A. Bowers. Bowers is credited for introducing ecology into the field of Curriculum Studies through his pioneering of Eco-justice, where he contends "social justice issues of class, race, and gender need to be framed" (2001, vii) and "should have as its main focus the recovery of the capacity of different cultural groups to sustain traditions that contribute to self-sufficiency, mutual support, and symbolic expression" (2001, p. 7). Culturally diverse groups which possess specific intergenerational epistemologies are what Bowers contends is excluded from Freire's writing. He argues Freire tends to promote a "universal human nature" (2001, p. 72) that perpetuates the homogenization of these culturally diverse groups into one uniformed culture, usually determined by Western interpretations (2001). The idea of a universal being "corresponds to the Enlightenment idea of the rational, self-determining individual who lives in a world of progressive change" (2001, p. 72-72).

Bowers substantiates his claim by quoting Freire as saying:
Human existence cannot be silent, nor can it be nourished
by false words, but only by true words, with which men

transform the world. To exist, humanly, is to name the world, to change it. Once named, the world in its turn reappears to the namers as problem and requires of them a new naming. Men are not built in silence, but in word, in work, in action-reflection (Freire, as quoted in Bowers, 2001, p. 73).

Bowers asserts this quotation perpetuates the Enlightenment ideology through its attributing changes to a form of universal progress without acknowledging how these changes and/or progressions impact the culturally diverse groups existing within a particular community. Bowers further suggests Freire's critical stance is essentialist in that a critical reflection is the only pathway to promoting that change. Freire's constant referral to "universal human nature" (Bowers, 2001, p. 73) without acknowledging how diverse cultural groups respond to individual communities represents, to Bowers, "the same modern way of thinking that is found in transnational corporations' view of global markets" (2001, p. 73).

This is an interesting summation in that Freire only suggests here that to *name* the world is to change it; that to name something at all promotes the change necessary for an individual to progress in such a way that perhaps liberates him from a particular oppression (1993/1970). This, to me, does not perpetuate the idea of a "universal human nature" (Bowers, 2001,

p. 73); rather, it suggests that once individuals name their oppressions, they can work towards individual liberation from their oppression, which, in turn, may solicit a more informed individual within a community setting.

I think a more interesting critique of this quotation is in the possibility that once something becomes named, meanings associated with that name become easy to consume by the individual, thus liberating her from one form of oppression while simultaneously introducing new oppressions not recognizable at that particular moment. And this consumption is what potentially promotes thinking patterns that fail to challenge a global production/consumption perspective, especially if we consume other people's meaning without questioning the origin of their interpretations. This, I believe, is precisely why Freire also suggests that education and individual liberation is *praxis*, a never-ending cycle of understanding the experiences we engage. We should not become complacent in our endeavors to understand the world in which we live.

Elaine Riley-Taylor (2002) cautions the act of naming inhabits certain dangers. "Labeling...need be done with great care, because to pin it down with definition and determinacy can have an extinguishing effect" (p. 21). She suggests also one must consistently consider how others may name the same

experience differently. This is particularly troubling in that our culture seems determined to name an ecological crisis with so many dimensions to its existence one simple, all-encompassing term sustainability. And this determination carries with it the potential of extinguishing those views differing from that which is currently being conveyed through Corcoran and others deemed as authority.

This naming process can be identified in just about anything we assign a name to, including those aspects pertaining to the environment. For instance, Antunes and Gadotti (2005), as well as Kahn (2010), identify ecopedagogy as a call for a "planetary consciousness" which includes ecological and environmental aspects that have historically been ignored. Bowers (2004), however, argues that "planetary consciousness" is framed in Western imperialist ideologies of the environment that erase the culturally diverse groups existing in multiplicity. He tells us, "There could not be a clearer statement of how Gadotti understands the ultimate goal of a[n] ecopedagogy: namely, a global culture that will replace the diversity of the world's culture" (p. 46-47).

I find this to be a relevant critique of ecopedagogy in that a planetary citizen with "planetary consciousness" *feels* limiting in its apparent exclusion of our *connections* with other species even though Antunes and Gadotti include other kingdoms

in their explanation. This is articulated in Gadotti's specific engagement of "planetary citizenship" (2000), which appears to exclude these ecological connections as well for citizenship is a human enterprise. While Bowers is specifically addressing the diversity found within human cultures, his critique identifies a limitation of ecopedagogy that appears to exclude human relations with other life-forms that sustain our own existence. These limitations are why I engage Morris' "ecological consciousness" as it does not limit consciousness to *just* the planet or *just* to citizenship; rather, it embraces a consciousness to the actual interconnections that exist *on* the planet, *with* the planet, and with all other life-forms existing as well.

If, however, we continue along Bowers' line of thinking, then could not the suggestion be made that the rally call of "think global/act local" perpetuates the same "universal human nature" (Bowers, 2001, p. 73) as well? Would not *any* suggestion to "think globally" assist in the globalization effort? Noel Gough (2002) posits the question of what it means to actually think globally. He suggests through multiple citations a consensus that thinking globally includes the constructing of connections between "one's (local) experience and conditions elsewhere in the world" (p. 1218). One such example cited is the educational practice of tracing a purchase made through the

commodity chain in recognition of how that purchase impacts various regions around the world (2002). Gough does not suggest these educational practices are negative; rather, what he argues is how this consensus fails to identify how Western epistemologies are privileged in this consensus (2002). In order to avoid this epistemological entrapment, Gough (2002) suggests "thinking globally" may best be understood "as a process of creating transnational 'spaces' in which scholars from different localities collaborate reframing and decentring their own knowledge traditions and negotiate trust in each other's contributions to their collective work" (p. 1233).

While I agree with Gough's summation, I prefer Susan Edgerton's explanation of the global/local relationship in that it re-situates the tensions and strife existing between the local/global into sites of "eco-erosic love" (1996, p. 70). She accomplishes this move by suggesting a form of love which extends beyond that shared between human beings; Eco-erosic love is:

Love of the land (local), and of the earth (global). Love of one's neighbors and intimates (local) and love of humankind (global) cannot be separated from one another or from love of land and earth...For if we love one or two exclusively of the others we will do (and have done) great violence in the name of love (1996, p. 70).

By situating the global/local binary within a framework of love, Edgerton invites all members of society to participate, not just those involved in scholarly enterprises. And the engagement of eco-erotic love does not perpetuate the possibility of the universal nature Bowers refutes in his writing for love is a subjective term. But I also believe a critical element such as that advocated by Freire and Kahn is necessary in order to assist in understanding how our actions inadvertently perpetuate the privileging of some ecological narratives at the expense of others.

This tension between love and strife is where I situate sustainability. If a love of humankind is what propelled the U.N. to make explicit an appeal for sustainability and/or sustainable development, then how is this act of love inadvertently privileging the very systems that act indifferently to the Earth and its multi-species populations?

Bowers' critique of critical pedagogy spawned a decade-long debate between him and Peter McLaren as both sought to defend their positions within the field. While Bowers maintains his criticism of the failure of critical pedagogy to support traditional and culturally diverse knowledge systems arising out of what he called "the commons," (2001; 2004; 2006), McLaren and Houston (2005), argued this to be "astounding given critical education's emphasis on what might be considered non-

traditional-traditional knowledge in the classroom, such as testimonio, oral histories, social justice case studies, and literature written by minorities" (p. 202). A better, more dialectical approach to addressing the issues arising out of our "common world" (*Earth Charter*, 2010, website), for McLaren and Houston (2005), involves a "dialectics of justice" (p. 203) between environmental justice and ecological justice. This dialogue would naturally include issues involving the economic impact on the environment and those knowledge systems that are constructed out of particular economies such as capitalism as well as the political constructions created as a result of these economies.

This belief is reiterated in the work of John Bellamy Foster (2002) who tells us, "Environmental degradation is also the degradation of human relationships. Ecological development is therefore about environmental justice as well. The struggle to create a greener world is linked inseparably to the struggle to reduce social injustice" (p. 81). Foster makes an interesting argument in that sustainable development is primarily an economic concept with environmentally-friendly associations (2002). This is adapted to ecology by economic considerations of the environmental costs those advocating for sustainable development believe should be accounted for.

Foster (2002) however, contends those who argue for "sustaining the earth" (p. 79) as opposed to sustaining profits will tend to emphasize the conflict between ecology and economy. This is important in that Foster recognizes two competing perspectives of sustainability. Neither perspective, mind you, emerges out of an administrative or governmental agency where Corcoran believed the term to be an issue. So already the term begins to become complicated. The question, of course, is in regards to other interpretations being constructed out of the ecological debate. And to unearth and complicate sustainability, I turn my attention to ecofeminism and ecological postmodernism.

An Engagement of Ideas: Ecopedagogy Meets Ecofeminism and Ecological Postmodernism-

In 2004, Orr wrote a compelling argument imploring that as we teach, interact, and live amongst each other, we do so always with the *Earth in Mind* (Title by Orr). In this text, Orr, in speaking of virtue, contends that because people lack what he defines as a "sense of community," (p. 62), and he believes this lack of attention undermines virtue, they fail to consider how individual actions affect the community and the larger world (2004). He tells us, "Sustainability will require a reduction in consumption in wealthy societies and changes in the kinds of things consumed towards products that are durable, recyclable, useful, efficient, and sufficient" (p. 62). Orr suggests that

sustainability as a *virtue* will guide us through a detoxification of over-consumption where "moderation must eventually replace self-indulgence" (p. 62).

I certainly agree with Orr that our over-consumptive patterns and desires have perpetuated the ecological crisis we face as a human population. But the assumption that sustainability is, by virtue of its attachment to the environmental movement, the term that will deliver us from this addiction appears somewhat premature. What is absent from Orr's argument is how he came to define sustainability as that virtue. In 2009, Orr elaborated on what he phrased the "essence of the issue of sustainability" (p. 127) by quoting a passage from Deuteronomy which identifies the choice humans must make: the choice between life and death. This choice, Orr determines, has never been more important for humanity than in today's times.

Orr uses his biblical roots of the question between life and death to explore the lack of attention religion, in particular Christianity, has given to this choice. He mentions the connection Christianity has with capitalism as a possible reason for this lack of questioning. As a Christian, I have struggled with the issue Orr explores and the multiple interpretations of Genesis expressed by individuals within my own community of friends; and I believe Genesis offers a reason for this lack of attention, which only feeds the capitalist

system in which we live via the anthropocentrism Jardine and Morris questioned in their work.

Genesis 1:26 states, "Then God said, 'let us make man in our image, in our likeness, and let them rule over the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground'" (NIV, 1991/1988, p. 9). Nowhere in the Bible does it state that humans should exploit the Earth for the resources it provides. But many people with whom I have spoken interpret this particular scripture as a rationalization for their belief that humans are superior to other species and the land thus perpetuating the exploitation of the Earth for the "benefit" of humankind. Whereas other interpretations from this same community of individuals contend humans are to be stewards of the Earth, to care for the gift of life to all species, including the Earth; not to exploit her gifts.

These possibilities are what lead Orr (2009) to suggest "the word 'sustainable' must imply something deeper than merely the application of more technology and smarter economics" (p. 125). To which I inquire: How so? What is this "something deeper?" I do not know and Orr does not elaborate. But it seems to me this existential interpretation is only being convoluted by the pragmatic solutions currently being discussed within the

environmental debate, leaving sustainability itself vulnerable to exploitation of meaning.

Orr's "something deeper" connotes a spiritual connection and is reiterated in the work of Jardine, who depicts ecology as a spiritual endeavor, as does Elaine Riley-Taylor (2002, 2003), calling it an ecospiritual view, and Timothy Callicut, petitioning for a more holistic approach to education (1996). Both Jardine and Riley-Taylor draw from the field of Deep Ecology and the scholarship of Bill Devall, George Sessions, and Arne Naess. While these scholars do not claim any affiliation with the field of Curriculum Studies, their work is important in that a deep ecological perspective allows one to see curriculum as a critical component to a larger, living world. Deep Ecology rejects the notion of "human-in-environment" (Naess, 1995, p. 3) in favor of a more "relational, total-field image" (Naess, 1995, p. 3).

This philosophy, or ecosophy T, as Naess calls it, embraces diversity evidenced in human cultures as this mimics diversity of life forms found in all of nature. A Deep Ecologist can be found fighting for the rights of seals and whales just as passionately as he fights for the rights of diverse human cultures (Naess, 1995). Deep Ecologists vehemently oppose anthropocentrism; they view humans as just another thread in the larger web of life. This works in direct opposition to humans-

as-superior in that it connotes a sense of equality amongst all species.

But Riley-Taylor (2002) contends Deep Ecology's quest to oppose all forms of anthropocentrism has led to a failure "to critically examine androcentric components of anthropocentric worldviews and their 'masculinist assumptions'" (pp. 18-19). To address this shortcoming, Riley-Taylor also brings to her scholarship writings in ecofeminism. She argues ecofeminism problematizes the often taken-for-granted patriarchal assumptions through their perpetuation of "androcentric separation[s]" (p. 19) found in modernity. She further contends these separations such as a "power-over" mentality, where one individual possesses power over another, "denies the possibility that there could be a deep spiritual connection holding all things upon the earth within a network of mutually sustaining relationships" (2002, p. 19). These separations are evidenced in Corcoran's approach to the audience the evening of his presentation. In his silencing of the audience, he very much denied any possibility of other interpretations of sustainability by me and other members who are as much a part of the environment as any member of an authority position. He denied any possibility that a connection to sustainability could possibly be a connection to the spiritual.

Riley-Taylor also brings to her scholarship the writings of Florence Krall and her compilation of ecology, feminism and autobiography (1994; see also Pinar, Reynolds, Slattery, and Taubman 2004/1995). Krall makes a profound statement in regards to diversity and the Earth. She tells us, "Our continuation, no matter where our particular home, what our ideology, or how we make a life, relies fundamentally and inextricably on the health of this planet" (p. 5). To destroy the Earth is to destroy ourselves. Perhaps this is why the people I questioned in my family and community associate sustainability with saving the planet; they (we) have failed to make the connection that ultimately sustainability is about saving ourselves; to tend to the health of the planet is to tend to the health of our own spirit. The inability to make this connection seems to provoke a tension within the self; at least it does within my own thoughts. And this tension provokes anxiety that we attempt to fulfill at the local shopping mall where we return home with bags full of purchased goods, but our spirit is still left empty.

Krall inquires into these tensions through what she terms "ecotone" (1994); a meeting place where conflicts and diversity reside; a place on the margins; a place "where we transcend our present limitations and move to new possibilities" (p. 6). This is the place I seek, where we can transcend the limitations

inflicted upon us by those of authority so that we may make sense of the world on our own terms, within our own contextual relationships; through our own sense-making, we can define for ourselves what sustainability means.

Also contributing to this field is Vandana Shiva's accounts of transnational corporations as colonial enterprises that oppress indigenous peoples from their own environment (2005), her postcolonial analysis of the green revolution (1991), the destruction of diversity to create a "monoculture" that invites vulnerability to all species (1993) as well as Shiva's compilation with Maria Mies as they analyzed globalization's effects on women and children (1993). Mies and Shiva's accounts of population and reproductive technologies in relation to patriarchy and reductionist science will be explored in detail in element three. In conjunction with Mies and Shiva's ecofeminism perspective, Carolyn Merchant's work will be explored in relation to women and ecology as well as the ecological ethics she presents in her work. In particular, Merchant chronicles the evolution of Mother Earth's assignment of the feminine pronoun. This assignment has had tremendous influence on how society views the Earth as a machine to be exploited and a commodity to be chipped apart, piece by fossilized piece.

Like Orr, Riley-Taylor (2002) also identifies overconsumption as a possible explanation of the spiritual bankruptcy on display within humanity. She tells us, "people in Western culture have been conditioned to gauge self-worth by material possessions and by job status rather than by the make-up of their inner being" (p. 35). We purchase over-sized houses on the outskirts of town and obtain over-sized vehicles to transport our manufactured necessities and our loved ones from one activity after another, increasing carbon dioxide emissions to a level the atmosphere cannot accommodate.

Our entire existence becomes a quest to obtain more consumable goods that are measured against some arbitrary comparison. We are reduced to walking advertisements of the latest trends in fashion, technology, and politically-conditioned knowledge. Jean Kilbourne (1999) suggests "the problem with advertising isn't that it creates artificial longings and needs, but that it exploits our very real and human desires...above all, advertising promotes a corrupt and bankrupt concept of relationship" (p. 77). In a consumer-driven world, we are led to believe the search for the meaning of life should be conducted at the local shopping mall that ignores a spiritual connection with nature and perpetuates what Svi Shapiro terms a "crisis of meaning." Shapiro's *Losing Heart* (2006) exemplifies a world that has become spiritually bankrupt, engrossed in a

"poverty of the soul" (p. 23) that has been conditioned to associate happiness with the next purchase. Yet we cannot avoid anxiety by purchasing goods that we did not actually want in the first place. We are still left empty.

For me, spirituality is ecological in that it connects us to a particular faith, whether that faith is of a higher being or a faith that a tree will be waiting in the backyard when we need a listening ear. Someone who recognizes and celebrates these ecospiritual connections already possess that which is most fulfilling in life: the relationships we build with the Earth, other individuals, and with ideas that fulfill us in ways empty purchases simply cannot accomplish.

While Riley-Taylor advocates for ecospirituality, Orr's "something deeper" has evolved into a call for ecoliteracy. For Orr, ecoliteracy attempts to engage students in a conversation with the Earth by probing deeper into the ecological interconnections the environment shares with its people and other organisms than more traditional environmental educational programs. Ecoliteracy promotes the goal "of making all of our students ecologically literate [and] would restore the idea that education is first and foremost a large conversation" (Orr, 2005, xi). By focusing on conversation, an ecoliterate person would become a transformed person; one that understands the

value and importance of reconnecting with ourselves, each other and the Earth (see also, Kahn, 2010).

Fritjof Capra also advocates for ecoliteracy by demonstrating its value through the perspective of systems theory (Capra, 2002; Capra, 2005). Capra identifies sustainability as a language of nature spoken between diverse organisms that cannot exist in isolation, and systems theory examines the language "in terms of interrelatedness and interdependence of all phenomena" (1982, p. 43). Capra contends when a systems theory perspective is utilized, whole systems cannot be reduced to its individual parts; rather, parts must always be examined within the context of the whole system. Therefore, a field such as education is not its own entity. It is a subsystem of the larger, ecological world. To interrogate educational issues without a thorough understanding of how these issues will influence and are influenced by the larger world only serves to thrust these concerns into a never-ending system of recycling due to its lack of attention to the connections they have with others. This may lead to short-term changes in educational policy or procedure, but fails to transform the school environment into something new.

Then, in 2002, Capra elaborated on his meaning of the term by suggesting sustainability was a question of morality. Capra also asserted ecological sustainability was:

an essential component of the core values that form the basis for reshaping globalization...many of the NGO's, research institutions, and centers for learning in the new global civil society have chosen sustainability as their explicit focus (p. 229).

Capra's discussion of the history of sustainability is the most thoughtful and accurate I have read (when compared to others explored in element two). But this history is offered in what Capra titled *The Hidden Connections: A Science for Sustainable Living* (2002); science being the operative word. And here is where the meaning of sustainability becomes even more complicated. Is sustainability a government and administrative issue as Corcoran suggested in his presentation? Is it a scientific issue that can only be addressed through science? Or is sustainability a government and administrative issue that is *informed* by science thus securing science's place as a dominant narrative within the language; in which case our actions to promote sustainability uncritically also act to promote the scientific narrative; not to mention the economic narrative Foster suggests in his writing.

What happens to the individuals residing outside of these governing and now scientific bodies? Are their opinions not of value? Are we to assume these governing bodies possess the power to define morality for each individual? I do not know. But

Corcoran alluded to this possibility that evening when he declared, "Sustainability is the metanarrative of your life" (2009, video file).

I could *feel* Jean-Francois Lyotard's agitation as Corcoran stated these words. Lyotard utilizes the term *modern* as a designation of "any science that legitimates itself with reference to a metadiscourse...making an explicit appeal to some grand narrative" (1984/1979, xxiii). Sustainability is predominantly housed in science departments, with some colleges and universities offering outposts of sustainability centers. Kahn questions this motive and the lack of attention given to other departments such as education and the humanities, especially since the fragmentation of the subject area claims reliance on ecological interconnections (2010). And by identifying sustainability as specifically within departments of science, the dialogue that would emerge out of a more interdisciplinary approach becomes vulnerable yet again.

Lyotard illustrates the use of narratives as an agreed upon value or belief between a "sender and addressee of a statement" (1984/1979, xxiii). This unanimous narrative seeks to define knowledge in terms of a "good ethico-political end" and what he views as a form of universal peace. With the conversation on the plight of human existence and catastrophe, the language is predominantly situated in terms of crisis, and often centered on

issues of global warming. And the dialogue I engaged with members of my community reifies this fact. The lesson was being learned well by its students.

What is interesting is how Lyotard situates the individual within an ecological context behind the postmodern condition. He tells us, "a *self* does not amount to much, but no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before" (1984/1979, p. 15). These relationships are grounded in messages sent between senders, addressees, or referents. And language becomes the social bond that links us to each other. For Lyotard, language is a game of moves and countermoves. But he cautions us not to react suddenly and without thoughtful engagement of the game itself, lest we play into the hands of our opponents. Without thoughtful contemplation, we inadvertently perpetuate the reduction of these ecological interconnections which "privileges the system's own interests and points of view" (Lyotard, 1984/1979, p. 16) while silencing our own ideas, even when we believe we are speaking out against that system. A postmodern perspective brings into question the structure of a system so that we may understand how the privileging of that system occurs.

Drawing from Lyotard's contention of multiple narratives are Dennis Sumara, Brent Davis, and Linda Laidlaw (2001). These scholars identified the connections between ecology and

postmodernism via postmodernism's inquiry into "the evolving web of interactions that constitute human relations within the more-than-human world" (p. 149); a particularly appealing explanation in its use of "more-than-human" (p. 149). This articulation resists the binary human/non-human where non-humans can be read as marginal to human beings, thus refusing to reinforce the anthropocentric mentality. While Sumara, Davis, and Laidlaw employed ecological postmodernism as a query into the relationship between Canadian identity and Curriculum Theory, I draw on their framework to explore sustainability's potentiality of supporting already existing narratives working within society.

Also drawing from postmodernism is Riley-Taylor, whose combination of ecofeminism and the relational being coincides with the postmodern contention of multiple narratives existing simultaneously. She teaches, "postmodern suggests a moving-beyond the search for 'truths' or 'certainty' or the 'authentic' nature of what *is*" (2002, p. 40). Indeed, there appears to be a desire to name what the environmental crisis *is*; that name being sustainability. The problem here is that to attempt to name what the crisis *is* tends to delegitimize those individuals labeled as Other who interact with their own environment in ways different from those who are privileged enough to be situated within these naming bodies and organizations.

These differing interactions are why Riley-Taylor (2002) suggests the postmodern self has been replaced by the "postmodern *subject*-seen as a constantly shifting, changing form, more an 'assemblage'...than a single, unified individual" (p. 41). As the messages regarding the environment constantly change, environmental understanding also changes. In my career teaching science and mathematics, this change has been evident in the inclusion of environmental science in state-prescribed standards. These standards have evolved into issues regarding pollution and acid rain, to global warming, to the current desire for sustainable development.

In mathematics, problem-solving abilities have reflected the desire to identify trends in global temperatures and the amount of pollution in waterways through recursive patterns, identifying that critical point (the n th point) where human action interferes with the Earth's natural processes and destroys a particular ecosystem. This, of course, is seen as a progressive move by those who argue global warming is a hoax and only serves to invoke fear within society. This perspective will be discussed in the epilogue in relation to responsibility. At this time, what is of importance is the fact that individuals within the same cultural environment do not share the same experiences, so they come to these messages, science or math lessons, or any interaction differently. These differences

invoke different responses to the experience and the *subject* changes her perspective; thus the moment is constructed by the social influences not only from that specific moment, but with moments from the past. These influences immediately interact to alter future thoughts and constructions. The moments become an open passage not only to the future, but to the past which interacts in the present. This opening up to other ways of seeing sustainability is what I seek to explore in my writing.

Of course, to suggest that sustainability *needs* to be opened also suggests that it can, in fact, be "closed;" in my desire to open and oppose the structures that seek to close the term to other interpretations, I inadvertently support the knowledge structure that attempted to close the term in the first place. Derrida (1981) teaches that nothing escapes these structures and to deny them is to risk confirming the structure we oppose; this denial "would be an affirmation of the autonomy of meaning" (p. 5) as opposed to the myriad contradictions a term possesses. Derrida elaborates:

Dissemination treats...that *point* where the movement of signification would regularly come to *tie down* the play of the trace, thus producing (a) history. The security of each point arrested in the name of the law is hence blown up (p. 26).

In my own experience, Corcoran's proclamation represents that fixed point in which multiple configurations of sustainability were closed off to me. It solicited the same feelings of confinement I struggled with in relation to that tree in my childhood and of education while teaching in a K-12 setting. Yet, it was through this closing that an opening to other possible meanings I failed to consider came into being. Corcoran's words, for me, represented Derrida's contradiction.

Derrida introduced deconstruction as an analysis within the sphere of a particular structure in an effort to expose internal contradictions arising within that structure (1997/1974). Drawing on Heidegger's "*destruktion*," Derrida posited deconstruction, not to destroy or destruct a particular concept, but to re-position it in ways that questioned its signification. Derrida sees deconstruction as reaffirming in that it allows us to move beyond a fixed point. He refers to these points as "transcendental signifiers;" signifiers that provide a stable source, a structure, which grounds individual assumptions that are made out of an always already existing center or source. He termed this fixation on a center (a particular word, truth, or reason) "logocentrism," and proceeded to deconstruct Western philosophy to reveal the contradictions hidden within its own language as it extended out from the *logos*.

To Derrida, Western philosophy favored speech over writing; that writing was thought to be a representation of speech and that presence was necessary for speech to occur. By interrogating presence through its opposite, absence, Derrida demonstrated how they were not oppositional at all; rather, they reified each other. And through this play of words, he identified presence as a transcendental signifier that depended on the spoken word, presence, as logocentric (1997/1974). Derrida then demonstrated through Saussure's system of signs that writing was not marginal to speech, but had equal presence, and that the spoken words often possessed different meanings.

Derrida then introduced this Play as a "disruption of presence" (1978, p. 292). He tells us:

the presence of an element is always a signifying and substitutive reference inscribed in a system of differences and the movement of a chain. Play is always play of absence and presence, but if it is to be radically conceived, freeplay must be conceived of before the alternative of presence and absence. Being must be conceived as presence or absence on the basis of the possibility of play and not the other way around (1978, p. 292).

Derrida's use of presence as the transcendental signifier seems to be secure within the discourse on sustainability. What we seem to be sustaining is humanity's presence on Earth (a worthy

cause). But this reliance on humanity as the "fixed point" appears to have closed off the conversation to the "more-than-human" systems of knowledge that dominate language and the ecosystem.

To provide an example, let us look at how the term "environmentalist" is interpreted differently through the writing of Murray Bookchin. Bookchin (2005) contends that environmentalists tend to "adapt the natural world to the needs of the existing society and its exploitative, capitalistic imperatives by way of reforms that minimize harm to human health and well-being" (p. 15). While I concur with Bookchin that environmentalists tend to work within the confines of a capitalist society, I reject the notion that *all* environmentalists work consciously to support this economic system. Rather, their relation to the environment propels them to advocate against a particular injustice *as a result* of the capitalist system. This rejection, however, is configured on the prior knowledge I have of environmental activism.

Take Rachel Carson, for example. 1962 marked the release of her infamous text *Silent Spring*. In this argument, Carson traced effects of DDT pesticide poisoning in the environment through the food chain as it accumulated in concentration levels within other species such as fish and bird populations and the human body. High levels of accumulation produce such effects as liver

damage in healthy adult bodies. But Carson's central thesis was that large numbers of people had been subjected to poisons without their knowledge and/or consent. And these poisons had detrimental side effects to "soil, water, wildlife" (2002/1962 p. 13) as well as the human implications.

While her argument was on the environmental effects of DDT poisoning, she situated her concerns within the ecological context of the entire food chain. Because of *Silent Spring*, Carson was labeled as the mother of the environmental movement. But to label her as "only" an environmentalist is to marginalize her other writings, for it is in these texts (*The Sea Around Us*, 2003/1951; *Lost Woods*, 1998) that we discover Carson was first and foremost an ecologist. Environmental issues became, for her, a form of activism against the non-disclosed forms of harm to humanity induced by pesticide companies. And once Carson's claims caught the attention of President John F. Kennedy, he launched investigations into the validity of the claims, spawning a grassroots movement for corporate accountability that still rages to this day (Lear, in Carson's introduction, 2002).

But an interesting side-effect is revealed here in light of Bookchin's critique of environmentalists; that is the lack of credit given to what environmentalists have accomplished on behalf of humanity and other species. Not to suggest these members are above criticism, but to deny them any connection to

the larger field of ecology undermines the very meaning of the term. Bookchin (2005) defines ecology as the study of "the interrelationships between animals, plants, and their inorganic environment" (p. 85). Carson exceeded the expectations of the interconnections exemplified in Bookchin's definition by situating her argument within the ecological food chain.

Furthermore, Bookchin (2005) provides another explanation of ecology that deals "with the dynamic balance of nature, with the interdependence of living and nonliving things. Since nature also includes human beings, the science must include humanity's role in the natural world" (p. 86). Carson's entire argument is situated within the context of the biological implications resulting from DDT contamination. And she builds her case based on scientific evidence that implicated the corporations that were producing the poison. So Bookchin's definition does not actually distinguish environmentalists from ecologists; rather, it reinforces their connection.

Of course, that description is only demonstrated in the context of Carson's dialogue. If we apply Bookchin's dichotomy to Al Gore's understanding of environmentalism, we are able to comprehend Bookchin's concerns. Gore, in his text *An Inconvenient Truth* (2006), demonstrates how human activity is negatively impacting the Earth's natural, evolutionary processes through the increase of greenhouse gases such as Carbon Dioxide

and Nitrous Oxide into the atmosphere. This is what is commonly referred to as global warming. Of course, these two gases naturally occur in the atmosphere. What Gore is suggesting is that through such activities as increases in automobile usage, human activity is releasing *more* greenhouse gases than what naturally occurs. There are also PFC's and HFC's that Gore informs are produced "exclusively by human activity" (2006, p. 28) through such emissions from aluminum smelting, semiconductor manufacturing, and electrical grids that power cities and towns (Gore, 2006).

The answer to environmental problems, for Gore, is to re-imagine an economic system that works in favor of the environment. He tells us, "I also started...a firm devoted to proving that the environment and other sustainability factors can be fully integrated into the mainstream investment process in a way that enhances profitability for our clients, while encouraging businesses to operate more sustainably" (2006, p. 9). For Gore, it is not a question of whether capitalism itself is detrimental to the environment; rather, it is a desire to adapt capitalist endeavors to work within the constraints the Earth has created.

Gore believes we can transcend the political divide represented in the United States by identifying a sustainable economy as a common issue. It is *through* economy that we can

save the Earth. Yet, Gore's belief in a solution to what he terms a "moral and spiritual challenge" (2006, p. 11) that can be found by adapting economy to ecology legitimizes Bookchin's concerns as well as runs the risk of reducing the dialogue between other interpretations of environmental crises into a monologue spoken by the economy itself and stifles other ways of thinking. The diversity of interpretations stemming from one explanation of the ecology/environment binary exemplifies Derrida's contention that Western thought is situated within a series of oppositions that are not really oppositional at all. And the fact that "environmentalists" can be illustrated both in contradiction and in confirmation to a single statement such as the one Bookchin offers evidences how the term lacks stability.

Derrida contends that a "'signifier of the signifier' describes...the movement of language" (1997/1974, p. 7); that, contrary to Saussure's contention that words house universal meaning (Derrida, 1997/1974), the word (the sign) itself derives its signification from the individual who interprets it within a particular context, creating meaning that is present at that moment, based on prior understanding while simultaneously creating future configurations "to come." This in turn relegates the word (the sign) to an endless array of signified ends. Bookchin's definition of environmentalists, then, becomes a "signifier of the signifier" (Derrida, 1997/1974, p. 7), an

interpretation he made based on other writings through his own writing, just as my interpretation of Bookchin's writing is conveyed while I write it on this page. And this chain of interpretations suspends the word into free play, awaiting yet another interpretation to be made by those who read these words.

This continuous extrapolation of meaning explains how the community members I questioned identify sustainability as planetary salvation, while Corcoran views it as a policy issue, Orr as "something deeper," Capra as a language, and so on. And who is to suggest that any of these individuals are wrong in their interpretation? Certainly not I; rather, what I seek to accomplish at this juncture is to demonstrate other meanings of sustainability outside of the already existing explanations; to suspend sustainability in free play, to the movement provoked between love and strife, literally to suspend sustainability to the movement found in air.

Element Two

Setting Sustainability in Motion

Air: A mixture of nitrogen, oxygen and other minute particles such as water vapors; a stir in the atmosphere; [Idiom] to clean the air; to eliminate dissension, ambiguity or tension from a discussion; or, in this case, to hand over that discussion to the dissension and tensions always already in play.

Betrayal:

Our very act of being human is already to be handed over, betrayed, visible and audible, presumed-upon, witnessed, not just witnessing, known, not just knowing. We don't begin as self-determining subjectivities but, as already having been handed over to the ways of things (our language[s] and culture[s] and so on, all mixed and multifarious and, to the extent that we belong to them, often deathly silent and presumed), we are already betrayed by our belonging.

-David Jardine, 2008, pp. 12-13

Our very act of existence betrays us. The languages we engage as we share our experience, the culture that constructs and is constructed by our experiences, betray us before the experience has even come to an end. Jardine illustrates this betrayal in translating water. He warns us that any attempt at translating what water *is*, in words, already betrays water's

true meaning. This betrayal of water floats significantly from one interpretation to another via the vapors in the air, the currents of movement floating through the air, settling inside one's thoughts just long enough to disturb existing ideas; then meaning changes and the current moves again.

Of course, Jardine is not suggesting this betrayal of water is negative. On the contrary, what he is suggesting is that this betrayal opens up the translation and becomes its own experience of water; its own movement. In the translation of water into words, "the thing appears. It is not just *referred to*" (2008, p. 17). This appearance opens up the translation to be explored and this exploration leads to what Jardine contends is the ultimate betrayal: the betrayal of the betrayal.

In this element, I draw on Carolyn Merchant's depiction of five ecological ethics to explore how questions of the environment and sustainability betray us. By betraying the betrayal, I hope to open up sustainability to questions of maintainability. This opening allows me to demonstrate how our actions perpetuate the exploitations we advocate against. In this case, "What are we sustaining?" becomes a question of the betrayal itself.

Environmental Ethics-

In *Radical Ecology* (2005), Merchant identifies three ethical perspectives that date back to Aristotle: the

egocentric, homocentric and ecocentric ethic. She then expounds on these to include two emerging ethics that address current conversations in multiculturalism and what she defines as partnership ethics. To Merchant, environmental ethics provide the necessary link between theory and practice; the behaviors derived from these ethics drive thought into action; one's action is reflective of a particular ethic.

The egocentric ethic is "grounded in the self" (Merchant, 2005, p. 64). According to Merchant, this ethic draws from the philosophy of Thomas Hobbes, who argued that humans are competitive by nature. Merchant contends he believed that persons sharing the same location, what is referred to as "the commons," would have equal access to the resources found within this common locality. As a result of this equal access, these persons would inevitably have to compete against their neighbors for resources, leading Hobbes to conclude the "commons could not be shared, but must be fought over" (Merchant, 2005, p. 68).

For the egocentric ethic, capitalism *is natural* because it promotes competition between individuals, and the individual "is the highest good" (Merchant, 2005, p. 71). Therefore, natural resources are exploitable as they enhance the livelihood of human beings. I believe this ethic reflects current educational trends in standards and measurements that promote competition between students to out-perform each other on high-stakes test,

grade point averages, or the number of accolades one can receive before graduating.

There is also a homocentric ethic which is "grounded in the social good" (Merchant, 2005, p. 64). This ethic works for the benefit of the social welfare of a community. In an educational setting, this ethic envisions school communities as a unified environment where students work together for a common goal. Merchant suggests while human needs are central to the homocentric ethic, the needs of nonhumans are considered: nonhumans such as other species as well as corporate interests. The homocentric individual will attempt to mitigate between the egocentric and the ecocentric individuals. And the homocentric ethic is where Merchant contends current movements of sustainability and/or sustainable development are situated due to their desire to merge ecology with corporate economic interests.

Merchant (2005) also describes the ecocentric ethic, which is "grounded in the cosmos, or whole ecosystem" (p. 64). This ethic approaches the world from a holistic perspective, where knowledge is context-dependent and the binary culture/nature is foregone in favor of the idea that culture and nature are fractions of the "same organic cosmological system" (p. 78). All aspects of the environment possess intrinsic value simply because they exist. In education, the ecocentric school

environment would focus on the process of learning as opposed to a single testing instrument used to measure student achievement.

Multicultural environmental ethics suggest that while a human being is one species, that same human being represents many cultures (2005). These cultures are explored through the construction of race and how issues such as "globalization, sexism and naturism" (p. 83) impact social justice and the environment. In a school working within this ethic, differences in the student body and the connections with the larger society are explored.

As a mediation between "ecocentrism and environmental justice" (2005, p. 83), Merchant offers partnership ethic as grounded in the relationships built between individuals and other species as it searches for a balance between these participants. This ethic looks at the relationships constructed within the environment without limiting its focus on one particular issue, instead relying on how that issue relates to others.

Tea Parties and Protests-

An interesting development arises in light of Merchant's ethical perspectives. If we agree with her depiction, then we should consider the Tea Party Movement as an environmental movement, stemming from an egocentric ethic. Participants in this movement emerged in 2009 in protest of the economic

stimulus package that provided economic security to several financial institutions (Leopold, 2010). According to Leopold, Tea Party protesters not only advocated against big government, they also fought against the tyranny of big business. But the economic aspect of their advocacy became less of an issue as Obama aggressively pursued healthcare (2010). According to the Tea Party website, their mission statement consists of three ideas: fiscal responsibility, limited government influence on business, and the right to a free-market economy (2010), which supports the big businesses they originally advocated against. Healthcare, to them, directly impinges on the market's ability to control spending in this area.

It was not a challenge to identify the links that existed within this movement. Tea Party protestors have enjoyed much attention from television, newspapers, and conservative radio talk shows. They have been bolstered by multiple commentators on Fox News (as reported by Sue Wilson, 2009) and been the brunt of negative commentary by Keith Olberman (2010). The message has been heard loud and clear as a result. Tea Party protesters believe the Obama administration is guiding the country towards a socialist regime that seeks more government control of individual choice through such policies as health care: from legitimate concerns involving a deterioration of health care for all persons, to the absurd claiming the creation of death panels

that seek to euthanize senior citizens in their sleep. And they believe Obama is more interested in helping the poor rather than the middle class and the wealthy.

This is demonstrative of an egocentric ethic where an issue such as healthcare, if we consider the *idea* of healthcare as a common space, lends itself to a site of struggle. If all people have access to healthcare, then this equality provokes a competition among resources. And this competition, this struggle, now includes millions of individuals who have, in the past, been denied healthcare services beyond emergency care due to their socioeconomic status.

There are many other interesting issues that arise out of the Tea Party Movement. I shall briefly mention two. One deals with diversity. According to a New York Times article, "Tea Party supporters are wealthier and more educated than the general public" (Zernike & Thee-Brenan, April 14, 2010). This same article informs, "The 18% of Americans who identify themselves as Tea Party supporters tend to be Republican, white, male, married and older than 45" (Zernike & Thee-Brenan, April 14, 2010); hardly a diverse assembly of people. Participants who protest in this movement not only tend to share the same physical characteristics with each other but identical ideologies such as a strong support of free-market capitalism as well. And capitalism has been very good to white, middle-class

males who have, in turn, capitalized on the very system that has helped sustain their privileged position in society.

The other interesting aspect of this movement is what the Washington Post reported as a lack of a "central, guiding force" (Gardner, June 12, 2010) within the movement. Tea party protesters pride themselves on this lack of guidance and believe they can organize themselves. But as they witnessed the health care bill pass Congress and public approval waiver, this lack of organization is actually weakening the protests. Unlike the environmental movement, who also lacks a central, guiding force, there is no diversity, so there are no different ideas. There are no intersections between groups that feed and nourish each other. There is only themselves.

Differences of race are not promoted as is evidenced by the Tea Party website which bolsters a link to vote to "support Arizona's Independence" (2010, Tea Party Website), or an article that identifies one community who permits multiple votes by Latinos, as suggested by an anonymous guest contributor to the site. The "patriot feed" offers one blog after another where individuals proclaim that "leftists" lie to promote "destructive agendas" and socialized medicine. There is a call to educate individuals against the threat of Islam. "Raising awareness," as one blogger suggests, involves the raising of awareness to how their privileged way of life is being threatened by anyone other

than white, heterosexual, male, Christian individuals. The comments available on the patriot feed offer no compassion, or even acknowledgement, to individuals who are different than these persons. They blindly follow a white, male-dominated, capitalist ideology that is desperate to sustain their privileged position that society has afforded them.

Of course, no one is suggesting these individuals should not be heard. In a democracy, all voices matter in dialogue. But what these individuals wish to sustain are the same structures and monologues of privilege that support their (white) race and (middle) class position in American society. And these structures and monologues attempt to erase the diversity found in dialogue that enriches life for us all, even those who attend tea parties. Their actions demonstrate a translation of sameness; their privileged position in society betrays them into believing they are advocating for something new when in reality, they are seeking to sustain the same structures of domination that have existed for centuries.

Susan Edgerton (1996), however, suggests that "when translation takes place *without* a master, the transformations that take place can set cultural power in motion, blurring the boundaries between margin and center" (p.46). The environmental movement's refusal to be dominated by a "master" ideology has propelled the culture into a new direction. Paul Hawken (2007)

contends the face of this movement changes between one environment and the next. In India, for example, "environmentalism is a social justice movement, concerned with the rights of people to the land and its bounty" (p. 6). In what Hawken depicts as the "Global South," it becomes a "movement of the poor, with peasants leading campaigns that include land reform, trade rights, and corporate hegemony" (p. 7). In Germany, environmentalism has taken the shape of green political parties which question issues involving "ecology, anti-nuclear-power, peace, feminist, and others" (Spretnak and Capra, 1986, p. 5) while in England the movement tackles issues of public health.

In the United States, issues facing our country have been dominated by health care, corporate bailouts, off-shore drilling, and the current ecological disaster unfolding in the Gulf of Mexico as a result of the very drilling practices currently being debated in Congress. Through this diversity of thought, the boundaries that Edgerton discusses have been blurred in meaningful ways that have assisted in the ability for each individual to construct her own understanding in accordance with the context of her life. And the plethora of individuals writing, protesting and questioning these boundaries has led to a rich and lively body of work that is offered as a dialogue for all to engage.

BP's Oil Spill and the Betrayal of Images-

As I write, we are witness to one of the most devastating environmental disasters in history. On April 20, 2010, an explosion on an off-shore oil rig, British Petroleum's (BP) *Deepwater Horizon*, occurred due to a failure of a blowout preventer, which is designed to prevent the release of oil into the ocean. In the explosion, eleven people were killed and seventeen injured. Two days later, the *Deepwater Horizon* sank to the bottom of the Gulf of Mexico, releasing oil onto the surface of the Gulf. But it wasn't until underwater cameras were utilized that a massive leak was discovered, averaging approximately 1,000 barrels of oil a day. According to one website, the estimate had changed significantly from 1,000 to 5,000 barrels (roughly 210,000 gallons) by Saturday, April 28, with another website estimating the leak to be upwards of 60,000 barrels a day (which is approximately two and a half million gallons a day). Within the week, oil had reached the Louisiana coastline, a ban on fishing was placed on the area, the livelihoods of many individuals were effectively eliminated, and images of oil-drenched wildlife began to appear in the media.

In light of this catastrophe, after the initial shock wore off and anger and frustration set in, I began to ask, "Where are the people?" I could turn on the television and find multiple images of the Tea Party protesters on any given day, but there

were no images being presented of protesters of the oil spill. There was plenty of commentary, plenty of newspaper articles, debates over who was at fault, images of the animals that were destroyed, and plenty of analogies between the oil spill and Obama to Katrina and Bush. This question demonstrates how my own preconceived idea of what a protest and/or social movement looks like betrayed me. I had become accustomed to the interpretation set forth by the media, through history and that which is taught in schools where large populations of individuals swarm Washington D.C. in demand of change. Individuals speaking out against the atrocity unfolding in the Gulf appeared eerily silent. But silence speaks volumes. When we listen to this silence, we begin to hear piercing screams penetrate the air. I began to search the Internet, where many of the ideas existing within the environmental movement are expressed. Here I found multiple accounts of protests. Here I heard their screams.

There were the "Raging Grannies," which advocate for social justice through the opposition of corporate greed and inequalities through song, and have chapters in many states across the country. The South Florida Grannies can be found on the beaches singing about "BP's Friggin' Drilling Rigs" (Tilson, 2010). There is "Code Pink," composed predominantly of women who advocate against war efforts and for justice and peace, and also have chapters operating across the country. One such chapter in

Houston, TX consisting of approximately one hundred people doused oil over their bodies and marched naked outside of BP's Houston headquarters in demand for "the naked truth" (2010, website). They rallied support for an "International day of action" to boycott BP on June 19, 2010, along with the Sierra Club and The Color for Change organization.

There was also a day of protest scheduled for Saturday, June 12, 2010 that rallied support through Facebook, a social networking site, which bolstered support from forty-four different cities spanning five different continents. It is attempting to rebrand BP from British Petroleum to British Predators. Whether the protests actually occurred, I do not know, but, according to the Facebook page, 8,100 people became members in support of the *idea* of the protests. There is also a rebranding occurring in Great Britain, with protesters offering British Polluters as their slogan of choice. In New York, California, Michigan, in virtually every state, people are protesting outside BP gas stations, some protests virtually shutting down the stations for business. Yet, these images are noticeably absent from the media.

Unlike the Tea Party supporters, who are protesting *in favor of* a free-market economy, environmental protesters are advocating against the greed and callous disregard for life that corporations exhibit through their actions. Their protests are a

result of capitalism, and the very questions these images promote are not the kinds of questions the media wishes to share because they question the very foundation for which this country is structured. Also unlike the Tea Party Movement, these environmental activists' ideas are interacting with each other to identify diverse ways in which protests can be heard.

But even though these protesters are advocating for BP to be held accountable, the protests are demonstrating a betrayal of the images used to articulate their cause. Images as signifiers do not harbor universal meaning, but obtain their signification from individuals who extract meaning within various cultural contexts. Take, for example, a recent protest on June 4, 2010, held outside BP's headquarters in Washington D.C. In this demonstration, ideas merged via the convergence of various organizations such as Greenpeace, Public Citizen, Friends of the Earth, Energy Action Coalition, Chesapeake Climate Action Organization, 350.org, The Center for Biological Diversity, and the Hip Hop Caucus as these organizations came together to make a citizen's arrest of Tony Hayward, BP's Chief Executive Officer. The charges these groups were claiming included "worker safety and environmental violations, price-gouging, negligence, and the inability to adequately respond to mounting catastrophe in the Gulf of Mexico and surrounding

communities" (Gardner, Greenpeace Website, 2010). The website uploaded two images of the protests.

In the first image, protestors are standing behind a banner that states "Crude Awakening." But the image it is juxtaposed against suggests that perhaps these demonstrators are still somewhat asleep. I will return to this momentarily.



Figure 1-Reprinted with permission by Robert Meyers, Greenpeace, 2010

In the second image stands one person from Public Citizen, one from the Hip Hop Caucus, and another from Greenpeace: one black, two white, all male. One of the white males has control of the bullhorn, while the African-American stands by in observance, having acquiesced the power of voice over to the white male, securing the speaker's white privilege in society. And in America, members of structured organizations such as those mentioned before are predominantly white and middle class. The image also sustains the patriarchal notion that man alone will save the Earth from the disastrous impact of greed and

corporate corruption while the women are tucked away safely behind the barrier of the sign.



Figure 2- Reprinted with permission by Robert Meyers, Greenpeace, 2010

Sturken & Cartwright (2001) tell us, "language and systems of representation do not reflect an already existing reality so much as they organize, construct, and mediate our understanding of reality, emotion, and imagination" (p. 13). These two images produce an unintended paradox. On the one hand, the first image suggests that individuals wake up to the environmental degradation we are witnessing at the hands of big business. On the other hand, it is big business that supports and is supported by a patriarchal society where a man speaking out for social justice is a "natural" occurrence in a male-dominated society, as the second image implies.

These images are "safe" because they do not question the systems in which they are constructed while simultaneously constructing their own image, one of safety to those who wish to

join the cause, by appealing to a white society. In translating the curriculum of these images, there was indeed a master narrative being reinforced that did not blur the boundaries between differences; rather, they re-inscribed these boundaries. What was "lost in translation" was the very idea of difference itself.

There is also another contradiction embedded within the image. One of the gentlemen in the picture is holding a plastic water bottle, which will inevitably be discarded in a trash receptacle and carted away to some landfill; tucked away and out of sight from our thoughts; after all, what is out of sight inevitably becomes out of mind. Yet, we are bombarded by images of the BP oil spill because it has yet to be contained. Will these images possess the same cultural capital they currently employ once the spill fades out of the media limelight? I do not know. But the very slogan the first image displays suggests they will not.

Think about the last time you saw an image of the Exxon-Valdez oil spill of 1989 that wasn't being used as a comparison against the current oil spill. Were you even aware there was a similar oil rig explosion in the Santa Barbara Channel in 1969 that dumped millions of gallons of oil into the water, killing marine life such as fish and seals? Or what about the inaugural oil spill that occurred off the coast of France and England in

1967? The captain of the Torrey Canyon supertanker, in an effort to make more efficient use of his time, chose a shortcut that would save six hours off of his voyage. In the process, the tanker struck a reef which pierced a hole in the vessel, releasing approximately thirty million gallons of oil into the ocean.

Yet, the image of a "crude awakening" implies the BP oil spill is the first of its kind. It suggests a meaning that other spills similar to BP will occur in the future if we do not change; if we do not awaken to the role corporation's are playing in the destruction of the environment. Yet it neglects not only a history of these kinds of disasters but also each individual's role in perpetuating the problem. We purchase automobiles which seem to get larger each year so that we may drive to and from suburbia in an effort to escape the urban landfill and decay we helped promote through our escape. Do not get me wrong; I am in no way suggesting individuals are to blame for the atrocity unfolding in the Gulf. But our individual actions such as automobile use and petroleum purchases certainly do not heed the process.

Individuals protesting at BP stations across the country are protesting capitalism. There exists an *idea* that corporations *ought not to* be allowed to continue their callous acts to the environment at the expense of human life and the

life of other organisms whose environment has been destroyed. Yet, how many people now drive by BP stations in protest, only to arrive at a competing gas station and still purchase gas? Because that particular gas station is not affiliated with the spill, people are betrayed into believing it is okay to consume their product. These decisions are based on words and images that are present while these images work to mask environmental degradations such as Shell Oil's devastating presence in Nigeria.

Shell Oil extracts a portion of its oil supply from the Niger Delta. In the process, Shell gives little back to the Ogoni people who live in the region. They suffer from extreme poverty and malnutrition. And the region became known world-wide in 1995 when the Nigerian government (which enjoys hefty donations from Shell Oil) hung nine environmental activists for speaking out against the atrocities to the region at the hand of Shell Oil. And Shell Oil certainly does not advertise this event on its website. They do, however, provide a plethora of information on their efforts to promote "social concerns and work to benefit local communities" (2010, Shell Oil Website). They provide readers with a sustainable development plan they believe demonstrates their dedication to the environment.

One can find similar information on BP's website. Of course, their website is currently dominated by the oil spill

and how BP is responding to this catastrophe. But if you peruse the site you will locate a link to the environment and society, where BP offers its own definition of sustainability as:

the capacity to endure as a group, by: renewing assets, creating and delivering better products that meet the evolving needs of society, attracting successive generations of employees, contributing to a sustainable environment, [and] retaining the trust and support of our customers (2010, BP Website).

Unfortunately for us, we did not recognize until the oil spill that we were already apart of BP's "group" in that the actions of this company affect us all via the very environment currently under assault. BP would rather us erase memories of the oil spill from our consciousness. Until the oil spill is contained, however, that is an unlikely event. In the meantime, BP is selling images of assisting in the clean-up of beaches, hiring local fishermen whose livelihood has been interrupted, and working towards rebranding their own name from British Petroleum to Beyond Petroleum.

One such image of moving beyond petroleum towards a better future is in the name of the oil rig that exploded. The *Deepwater Horizon* suggests that offshore drilling is the last frontier and the first real hope American corporations have of controlling the production of oil. And while our attention is

devoted to the devastation in the Gulf, Shell Oil is preparing its own off-shore oil exploration via a drilling vessel it has named the *Frontier Discoverer*, also signifying its exploratory nature and its possession of hope and possibility of a freedom from dependence on foreign oil. According to the Greenpeace website (2010), the *Frontier Discoverer* is prepared to begin drilling as early as July, 2010.

These names, *Deepwater Horizon* and *Frontier Discoverer*, seem more like a line out of a Star Trek episode than out of a policy manual written by multi-national corporations. My imagination conjures up images of Captain Kirk and Mr. Spock standing aboard an oil vessel in the middle of the Atlantic Ocean, commanding its crew to "drill, baby, drill;" to "go where no man has gone before." Of course, no such image exists. But the names created by BP and Shell provide enough imagery that invites people to construct an image such as the one I imagined that simply does not exist. These images, these constructs, become their own curriculum; one that focuses on an individual's ability to make connections between the words that are present, ignoring the influence that absent words, images and meaning hold over their actions. And this exploration of new frontiers and new horizons masks the exploitative nature the exploration includes, which is the rape of the environment for profit. So when I ask what are we sustaining, a contradiction arises: are

we sustaining the environment? Or are we sustaining an economic system that exploits the environment for profit? Because I do not see how the two will work equitably together. But I also do not see how the two can mutually exclude the other, either.

Betraying the Betrayal-

The questions I ask regarding what we are sustaining are troubling to me because they allude to how I see the environmental movement as being betrayed by their actions. The demonstrations against BP are a case in point. Two of the organizations that participated in protests belong to what Merchant (2005) calls the "Group of Ten" (p. 167), which she lists as follows:

- Environmental Defense Fund
- Environmental Policy Institute
- Friends of the Earth
- Izaak Walton League of America
- National Audubon Society
- National Parks and Conservation Association
- National Wildlife Federation
- Natural Resources Defense Council
- Sierra Club
- Wilderness Society

According to Merchant, these ten organizations tend to focus their attention lobbying Congress to pass environmentally-

friendly laws. What is disconcerting about these organizations are the financial contributions they receive from corporations and the placement of corporate executives on their boards (Merchant, 2005). This leads to questions of what these organizations are advocating for. Corporate donations and placement within governing bodies of environmental organizations buys these corporations a tremendous amount of influence on what these organizations can/cannot lobby for. So are these Non-profit, environmental organizations advocating for the environment or the donations they receive that sustain their own existence?

On May 24, 2010, Joe Stephens with the Washington Post reported that Conservation International had listed BP as a contributor to its organization, contributing around \$2 million dollars. Stephens also reported that other environmental groups such as the Sierra Club had joined forces with BP to form the "American Wind and Wildlife Fund," providing oil companies greater influence on the creation of alternative energy sources that will no doubt impact their profit margin. Stephens reports this coalition is exploring avenues that protect wildlife from wind farms; avenues that are "responsible" (a term he leaves open to interpretation). This relationship with the oil industry is not the only tie the Sierra Club has with oil. The Sierra Club Foundation has enjoyed matching gift donations from

multiple corporations including ExxonMobil Corporation in 2008 and both Mobil Oil Foundation and BP America, Inc in 1998, as reflected in the annual reports of those years. And these donations place The Sierra Club into a contradiction that begs to question their motives behind their involvement in the protests in the first place.

Not all environmental organizations, such as Greenpeace, accept corporate donations because of the contradiction that arises between their mission and the influence corporations can impress on the implementation of actions that reflect that mission. Greenpeace actively participates and supports grassroots organizations in numerous countries who seek to put an end to environmental degradations, not to modify the act into more environmental-friendly outlets of exploitation. Greenpeace recognizes the need for difference in addressing the different needs each locality demands. But the Greenpeace website also includes a link for information regarding sustainable agriculture which holds the potential of betraying their actions through a language that I believe can actually work to sustain the very corporations they exclude from their donor list. This is because Greenpeace does not disclose how it defines sustainability. And for reasons I will elaborate on momentarily, this lack of disclosure opens the door to misunderstanding the interpretations behind their engagement of the term. In order to

make explicit my concern, a discussion between movement and revolution needs to be conducted.

Movements Versus the Revolution-

I like the term "movement." It connotes perpetual motion that constantly moves ideas from one individual to another, who then brings these ideas into a collective body which continues that motion of ideas. In a movement, there is no definitive beginning or end. And what begins within these movements is an articulation of the resistance to these oppressions, not the oppression itself. What is created is a language of how to resist.

Revolution, however, implies to me both a beginning and an end. Once the demands of a revolution are met, the revolution tends to disband; the changes that are created as a result are implemented and often absorbed into an already existing system of hegemony and harbors the potential of becoming corrupt institutions. I make this distinction between movement and revolution because Andres Edwards suggests that what we are currently witnessing is not a movement, but a paradigm shift in thinking and acting from individuals as well as corporate entities. He calls this shift a sustainable revolution (2005).

Edwards (2005) offers five characteristics of the sustainability revolution:

- 1) the similarities among sustainability groups in overall

intentions and objectives; 2) a large and diverse number of such groups; 3) a wide range of issues addressed by these groups; 4) leadership by a group of decentralized visionaries rather than a single charismatic figurehead; and 5) varying modes of action: oppositional and alternative (p. 6-7).

These characteristics, however, are more emblematic of an environmental movement that emerged onto the social scene through the writings of Rachel Carson in 1962. Sustainability as a term used in the capacity of the environment and development did not emerge until 1987, when the U.N. addressed these issues through the Brundtland Commission.

Capra contends the definition of sustainable development embraced by the U.N. originated out of the definition created by Lester Brown and the Worldwatch Institute which preceded the Brundtland Commission. Based in Washington D.C., this institute is a research organization focusing on issues involving "climate change, resource degradation, population growth, and poverty by developing and disseminating solid data and innovative strategies for achieving a sustainable society" (Worldwatch Institute Website, 2010). Brown, founder of the organization, identified a sustainable society to be "one that is able to satisfy its needs without diminishing the chances for future generations" (Capra, 2002, p. 229).

But the first mention of sustainability in terms of the environment came from a report titled *The Limits to Growth* on behalf of The Club of Rome, an International and informal organization of individuals who came together out of a concern for the "the present and future predicament of man" (Meadows, Meadows, Randers, & Behrens, 1972, x). The collective group ranged from scientists, economists, educators, humanists and a host of other International disciplines in hopes of building an understanding of the complex interconnections mirrored in ecology. Initially, researchers identified four aspects in which all societies and cultures have in common (with varying degrees of impact); "they contain technical, social, economic, and political elements; and, most important of all, they interact" (Meadows, *et al.*, 1972, xi). Out of these common intersections, researchers identified five basic factors they contend "determine, and therefore, ultimately limit, growth on this planet-population, agricultural production, natural resources, industrial production, and pollution" (Meadows, *et al.*, 1972, xi).

It is interesting to point out how this initial study in relation to the ecological interconnections existing within sites of ecology, economy, culture, politics, etc. was research into the impact humanity was having on the planet, not a study on how to sustain the planet. This is a contradiction to the

messages being offered that promotes individual beliefs that what we are sustaining is the planet itself. The authors make a point of disclosing to readers no participants hold public office, nor do they promote "any single ideology, political or national point of view" (Meadows, *et al.*, 1972, ix). They did, however, secure funding for the research from the Volkswagen Foundation.

The report offers the first formal model that was "global in scope" (Meadows, *et al.*, 1972, p. 27) and identified through mathematical formulas projections on how long humanity could continue its current course of ecological degradation on the planet before seriously affecting all human life. While the report opens itself to many questions, such as how much influence the Volkswagen Foundation had on the conclusions of the research or why the authors were focused on *mankind* rather than a more inclusive category such as *humankind*. The point of interest for my research is in their concluding statement, for I contend it was this statement that planted the seed for the U.N. interpretation of sustainable development. The authors state: "We can say very little at this point about the practical, day-by-day steps that might be taken to reach a desirable, sustainable state of global equilibrium" (Meadows, *et al.*, 1972, p. 185). This statement solidifies the need for society to work in such a way that promotes equilibrium within the Earth's

resources and systems; that growth must be conducted with the consciousness of the limitations they suggest.

This engagement of a "sustainable state" is what I contend was adapted by the U.N. and became the rally call for sustainable development and/or sustainability. Each one of the issues examined in *The Limits to Growth* found their way into *Agenda 21*: population can be found in discussions of demographics and human health; agricultural production is discussed in terms of "agriculture and rural development" (2004, Chapter 14); natural resources in terms of land, deforestation, desertification and drought, ocean and marine life, mountain development and freshwater resources; industrial production is located in chapters relating to technology development, biotechnology, management of toxic chemicals and hazardous wastes, and radioactive wastes, and pollution in all topics already mentioned.

Of course, the purpose here is to demonstrate that regardless of whether the U.N. was influenced by *The Limits to Growth* or by Lester Brown or whether they adapted concepts from both, the purpose is to demonstrate that sustainability did not originate out of a grassroots environmental movement. Rachel Carson did not engage the term; Aldo Leopold, author of *A Sand County Almanac* (1949), did not use it in his petition for a land ethic; dating back even further than these writings are the

transcendentalists such as Emerson and Thoreau who did not use the term either. The term sustainability and/or sustainable development originated out of a scientific research study or a research organization located in Washington D.C. or out of the U.N. And none of these organizations are representative of the "bottom-up," grassroots level who have been engaged in an environmental movement long before Edwards' revolution emerged.

Not to suggest activists on the grassroots level do not share similar concerns and can engage in the use of the term. Individual groups operating within the movement have similar intentions to these "top-down" organizations when it comes to protecting the environment. These groups are as large and diverse as Edwards claims. And he is correct in his summation of the issues being broad and decentralized. What concerns me about Edwards' characteristics, however, is his (re)presentation of these dimensions as characteristics of a revolution that emerged in the 1980's, with only traces of a history that predates his revolution by at least twenty years. By doing this, Edwards erases the environment out of its own movement and subsumes its meaning within that of the sustainability revolution.

In actuality, sustainability and/or development emerged out of a U.N. report that was far removed from grassroots activists. And by subsuming the characteristics, and inadvertently its history, of grassroots environmental movements into his

sustainability revolution, individuals working within the movement are led to believe the term sustainability represents their actions. Sometimes the word does reflect similar ideas within particular groups operating within the movement. But sometimes it does not.

According to Edwards (2005), the sustainability revolution is built on the premise of the three E's, which he initially presents in a series of binaries: "ecology/environment, economy/employment, and equity/equality" (p. 21). He tells us "the key innovation of sustainability is the expansion of the earlier focus of environmentalism on the preservation and management of ecology/environment" (p. 21). But the majority of individuals did not want to *preserve* the environment; they wanted to *protect* the environment from corporate entities intent on destroying the land for capital gains. And they were less interested in managing the environment than they were at halting the production of materials, actions and policies that reduce the Earth, its resources, and its inhabitants into commodities to be bought and sold for profit.

The binaries Edwards presents marginalizes one aspect of the environment while privileging another. Take, for example, ecology/environment, when written accordingly, privileges ecology while marginalizing the very environment where ecological interconnections are constructed. Yet these two terms

do not work in opposition. They are always already in existence within each other regardless of whether the ecological interconnections work in favor of or in detriment to the environment. The two terms constantly move inside and outside each other, leaving their meaning, their signification, to the individual who brings different experiences to the reading of the text. For Edwards, sustainability is the interconnection between ecology, economy, and equity that occur within the environment. But when we work to sustain that environment, we also work to sustain the ecological, economic, and equitable interconnections within that environment. As a demonstration, let us examine the language more closely.

Foucault (1970) suggests that language is constructed entirely through discourse, "and it is so by virtue of this singular power of a word to leap across the system of signs towards the being of that which is signified" (p. 94). Edward's depiction of the sustainability revolution literally leaps across a system of signs that have, in the past, signified environmental issues. In this leap, he virtually erases the environment out of his argument and substitutes it for ecology, which he privileges in his writing. Yet, by privileging ecological connections, he simultaneously marginalizes the connection that exists between the environment and ecology.

To Foucault (1970), the *power* of the word lies in what he terms as the "essential function of the verb" (p. 95), in his case, the verb *to be*. The power of the word resides in how it relates the language one uses in discourse to that which it seeks to represent; "the only thing that the verb affirms is the coexistence of two representations" (Foucault, 1970, p. 95). This coexistence becomes the ecological interconnection that is used to describe the environment where the representation occurs; an environment that is constructed by these interconnections while simultaneously constructing them as well. The power of the word is identified by how that word becomes represented through its action. And if we take Foucault's word for it, and verbs contain two representations, then there has to be two representations of the word *sustain* because *sustain*, after all, is a verb.

By definition, *sustain* means to support, hold, or bear up from below. It means to keep from giving way or to keep up or keep going an act or a process. It also means to supply with food, drink, and other life essentials as well as to provide support with approval, to confirm or corroborate and to secure assistance, such as a sustainer fee for an attorney. These definitions force the word *sustain* to be used in conjunction with an object that explains its intentions. It cannot stand alone. *Sustainability*, however, is a noun, an idea, that

attempts to express itself without the aid of an act to interpret its signification. But this attempt fails when individuals with different experiences read the signifier in a way that produces different meanings.

Because of these differences, James O' Conner (1994) suggests that sustainability is an "ideological and political" (p. 153) discourse, not an "ecological and economic" (p. 153) one. The *idea* is to support and uphold, to keep up or keep going already existing ideological structures such as capitalism and the move towards a free-market economy through globalization while presenting these structures in more environmentally friendly language. In an environmental movement that defies all structure, ideologies pose a threat to their differences by using a language that promotes homogenized thinking. And in a revolution, these ideas can be manipulated into singular objectives that produce data which can measure when the objectives are achieved.

When I ask what we are sustaining, I ask because the term itself has a double meaning. The definitions provided earlier present all that is good about the term sustain. And what individual would not want to live in such a way that sustains the future of the planet for our children and our grandchildren or even sustain conditions so that future human populations may continue to exist? But we seem to be advocating for an idea that

we have yet to critically analyze, potentially betraying us into perpetuating an ideology that promotes sameness and homogenization; an ideology that erases the differences that connects the multiple interpretations within the environmental movement itself. I contend that what we are witnessing is the dismantling of *difference* by providing a common idea of *sameness*. And what we are blind to is how this idea masks a hidden ideology of globalization that many grassroots activists vehemently denounce. In this sameness, differences are erased, the history of the movement is being re-presented as a history of a revolution of sustainability ideas when, in fact, the environmental movement and Edwards' revolution have very different origins and meanings.

While the movement resides at the grassroots level, the revolution began at the top of the policy-making tree (U.N. bodies of organizations and governmental agencies), so to speak. In order for the tree to flourish, however, it needs its roots to grow. It needs its roots to sustain (i.e. to bear up from below), just as its meaning suggests. Herein lay my greatest concern. By erasing the environmental movement and subsuming its differences within the revolution, individuals residing on the grassroots level are betrayed into believing that sustainability is representative of its cause. They inadvertently promote the

growth of an ideology that can only destroy the very differences that have been the roots of the movement for over fifty years.

Sustain, by its own definition, also means to keep in existence; to maintain. The idea of sustainability, with all its good intentions, attempts to move ecology to the forefront of discourse. This is an important move because for centuries, many people have neglected the impact human activity has on the Earth. By virtue of this move, however, we buy into the notion that the relationship between economy and ecology can, in fact, be equitable.

Take the U.N. document *Agenda 21*, for example. *Agenda 21* seeks equity between race, class, and gender. It seeks more equality between first and third-world countries. The document recognizes the ecological interconnections between ideas that originate between varying sects of society. But it grounds these relationships and interconnections on the *maintainability* of a global economy. *Agenda 21* describes the relationship between poverty and environmental degradation. In this description, the document specifically targets the issue of unequal consumptive patterns existing between rich and poor nations resulting in "excessive demands and unsustainable lifestyles among the richer segments, which place immense stress on the environment" (*Agenda 21*, 2004, chapter 4, objective 5). This stress results in the unequal distribution of basic needs the document defines as

"food, health care, shelter and educational needs" (*Agenda 21*, 2004, chapter 4, objective 5). But the U.N. argues the action to be taken, action that "seeks to promote patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity" (*Agenda 21*, 2004, chapter 4, objective 7a) still maintains the ideology of a free-market capitalist economy, now on a global scale. This is accomplished by the U.N.'s promotion of achievable sustainability goals through funding and grants provided by U.N. organizations such as the International Monetary Fund (IMF), the International Development Association (IDA), the World Bank, the Global Environment Facility (which is "managed jointly by the World Bank, UNDP and UNEP" (*Agenda 21*, 2004, chapter 33, objective, 14a).

Two of these organizations, the World Bank and the IMF, were created in conjunction with the U.N. after World War II in an effort to prevent future economic catastrophes such as those experienced after the war (Klein, 2007). Naomi Klein tells us, "The World Bank would make long-term investments in development to pull countries out of poverty, while the IMF would act as a kind of global shock absorber, promoting economic policies that reduced financial speculation and market volatility" (2007, p. 203). However, Klein asserts these organizations failed to live up to these initial intentions. The U.N. has always followed a

policy of "one country, one vote" (Klein, 2007, p. 203). But the World Bank and the IMF allocated power on the basis of a country's economic size which Klein determines gives "the United States an effective veto over all major decisions, with Europe and Japan controlling most of the rest" (2007, 204).

Klein further argues that when Reagan and Thatcher gained control in the 1980's, they utilized their power over these institutions to promote a "structural adjustment" (2007, p. 205) within the World Bank and the IMF. As Klein (2007) demonstrates, "Officials with the World Bank and the IMF had always made policy recommendations when they handed out loans, but in the early eighties, emboldened by the desperation of developing countries, those recommendations morphed into radical free-market demands" (p. 205). When countries sought assistance from these organizations, the assistance was accompanied by demands for that country to open its borders to "privatization and free-trade policies" (p. 206) she contends only exacerbated the country's problems.

Noam Chomsky (1999) reiterates this fact when discussing the relationship between USAID and the World Bank as they sought to relieve Haiti from environmental degradations and extreme poverty in 1981. Both USAID and the World Bank concluded the problems in Haiti could be addressed by expanding "private enterprises" (p. 107) and minimizing "social objectives" (p.

107) which Chomsky suggests only increased the inequalities and poverty of individuals while decreasing the quality of healthcare and education (1999). Chomsky offers an interesting observation to readers by stating, "It may be noted, for what it is worth, that these standard prescriptions are offered side by side with sermons on the need to reduce inequality and poverty and improve health and educational levels" (1999, p. 107). And Chomsky's observation supports my concern that the U.N., through its organizations such as the IMF and the World Bank, continue to perpetuate the free-market economy both Chomsky and Klein discussed, only now through sustainable development measures.

There seems to be no more debate about whether an individual country wishes to engage in free-market trade at all. So the goals the U.N. has set for itself and all of humanity can only be achieved through the maintainability of the economy. This creates inequality between the economy and ecology because as long as the U.N. desires to sustain economic development, the development can only be achieved through the exploitation of the Earth's resources. In other words, the sustainability of the Earth and its inhabitants comes through the maintainability of the very acts that exploit it. This is why, when the World Trade Organization convened in Seattle in 1992, thousands of individuals converged onto the city to protest the ideas set forth by the U.N. This organization did not represent to them

equity between nations and ecology and economy. This organization represented a perpetuation of globalization that was imprisoning them through debt to the World Bank and the IMF. The same organization, in that same year, was meeting in Rio de Janeiro to identify equitable means of development that would sustain humanity's existence. The U.N. is also the ruling body of the same organizations that assist trans-national corporations in their exploitation of under-developed countries. The contradiction did not go unnoticed by thousands of grassroots activists fighting for social justice in Seattle.

Adrian Parr (2009) also identifies this contradiction and shares similar concerns when she states:

The more the affective power of sustainability culture is contained as it is represented within a dominating framework, the more environmentalism runs the risk of contributing to dominant apparatuses of power. In so doing, sustainability culture runs the risk of assisting, more than subverting, the institution of subordinating economic, social, and cultural practices (p. 107).

For Parr, sustainability is its own culture, and she contends it is being "hijacked" by corporate movements as they attempt to inflict their own meaning into the fray. I agree with Parr on many of the issues she raises. Where I differ from Parr is in the usage of the term "hijack." Can a concept such as

sustainability be hijacked from an environmental movement that never created the concept in the first place? Not to suggest that anyone *owns* language, because no one can determine how a word or image or concept will be interpreted by others. But when we choose to blindly follow an idea because it perpetuates an ideology, we allow the ideology to construct meaning for us. That is not hijacking; that is blind submission to the historical revisions being conveyed.

As stated before, sustainability, as an ecological concept, was coined by the U.N., with a belief that the idea would trickle down through language into grassroots organizations and common, everyday usage. And the concept has floated through the language system exactly as they suggested. This floating of the signifier is what permits someone such as Corcoran to claim sustainability as a metanarrative. Yet, I do not see sustainability itself as a dominant narrative; rather, this is but a greener image of globalization.

Globalization as a dominant narrative erases the differences found within the environmental movement because differences pose a threat to globalization which appears intent on creating one homogenized world where trans-national corporations control the conversation. Corporations also have tremendous influence on the current drive to standardize school curriculum through the monologue of testing and measurement. By

reducing the school to a specific set of standards, these outside influences help construct what is identified as knowledge. They also help construct a future world where dialogue no longer exists because no one questions the very ideas that help secure and sustain their place in society.

We need not look any further than the Tea Party movement, whose participants are clinging to a place in society that corporations have assisted in maintaining through a capitalist structure. When environmental activists come out in protest of corporations such as BP, these protests question that structure. So they get branded as eco-terrorists. Ideas such as global warming are portrayed as socialist ideas, as my father suggests, and one which I have yet to understand for he cannot elaborate on how he has reached that conclusion. Anyone who offers a critique of this structure is branded a leftist. Those who seek to protect wilderness get labeled as tree-huggers, enviro-nazi's; the names are endless.

The struggle over the environment comes from the inside: inside a system of capitalism, of racism, of sexism, of differences. The struggle for the environment takes place in schools and in the hearts and minds of students who have been reduced to a number on a line plot displayed in "data rooms," as we are forced to call them in schools. This is in an effort to "disaggregate" them, take them apart, and disconnect them into

isolated individuals who happen to live in an interconnected world.

Zizek (2009) poses a thoughtful question when he asks if the financial meltdown of 2008 will be an "awakening from a dream" (p. 17). He tells us "when the normal run of things is traumatically interrupted, the field is then opened up for a 'discursive' ideological competition" (p. 17). We can ask the same question regarding the BP oil spill. Will the oil spill produce a "crude awakening" as one image from a protest suggests? Will people awaken to the fact that big business means big trouble for the environment? I do not know. But the competition between those who advocate for social justice and the environment and those who advocate for self justice and the economy are currently at war over which ideal, which image, and which interpretation of the BP oil spill will dominate. And this battle illustrates Zizek's (2009) warning: "The danger is thus that the predominant narrative...will be the one which, instead of awakening us from a dream, will enable us to *continue dreaming*" (p. 21).

If this is a dream, please let me wake up!

Element Three

Father Sun, Mother Earth and the Strife Existing Between the Two

Sun: a self-luminous star; the central body of the solar system; [Idiom] under the sun, such as a place on Earth, or this place could be anywhere, but visibly present from the center; in this case, to de-center what we see.

The Evolution of the Life and Death of Mother Earth-

How does sustainability maintain existing narratives of patriarchy and science? The ecological trace embedded within the question dates back to the time of Empedocles and before. While Empedocles likened movement to a battle between love and strife within the cosmos, offering no particular gender to the Earth itself, Merchant (1983) contends it was Plato who "endowed the whole world with life and likened it to an animal" (p. 10), proclaiming also the soul of the Earth to be inherently female. She demonstrates the integration of Plato's *Timaeus*, where he bestows the Earth her female status, into Christian philosophy via the "twelfth century Christian Cathedral School of Chartres, which interpreted the Bible in conjunction with *Timaeus*, [and then] personified nature as a goddess and limited the power attributed to her in pagan philosophies by emphasizing her subservience to God" (p. 10).

Here we see traces of the ecological inequalities between differing genders in that God ruled over the Earth and was

credited with the ideas that floated through the air. According to Merchant, because ideas stemmed from God, they were masculine in nature even though many religions depict God as a genderless Being. The various forms of matter were likened to Mother Earth, with nature serving as God's agent; both female in gender thus both subservient to God. Yet, even though nature was subordinate to God, she was still superior to human beings "both in creativity and ease of production" (Merchant, 1983, p. 10). This is in stark comparison to the anthropocentric ideology on display in today's society.

The idea that the Earth was a living being was promulgated in philosophy, science, eventually weaving its way into political and cultural narratives as well. By the sixteenth century, Mother Earth and nature's subservience to God was expounded upon to include all the "masculine heavens" (Merchant, 1983, p. 16). During this time, Mother Earth retained the nurturing status to all life, but she could do so only at the hand of the father, who in this case was Father Sun, and whose light was a necessary prerequisite to all other Beings on Earth. And it was light that God first bestowed upon the Earth.

While the juxtapositions of Empedocles' roots were suspended in perpetual motion, this movement and the roots themselves could only be seen through the light provided by the sun. So the power of sight upon which to view all other elements

produced an inequality amongst these roots; privileging the father while marginalizing the mother, her breaths of air and the water that coursed through her being.

Merchant (1983) chronicles how the "organic theory" evolved over the centuries by comparing the Earth to the female body: rivers and streams as the arterial flow of the Earth; morning dew as the sweat from Mother Earth's brow; rainforests as the lungs; her elimination system was identified through earthquakes and its ability to break wind. "The most commonly used analogy, however, was between the female's reproductive and nurturing capacity and the mother earth's ability to give birth to stones and metals within its womb through its marriage with the sun" (p. 25). All things living emerged out of this union.

But Merchant argues the organic theory and the ideas/images of the Earth as living produced a paradox. The Earth as a living, loving mother brings with it a particular set of values and ethical behaviors. As Merchant (1983) suggests, "One does not readily slay a mother, dig into her entrails for gold or mutilate her body" (p. 3). So the image of the Earth as living had to be altered into new images of the Earth as a machine with no spirit to be raped, no heart to be broken, to alleviate the ethical dilemmas that were arising out of the need to puncture the Earth's womb through industrial mining. A machine has no feeling(s). So a highly contested divorce between the Earth and

nature with their living, breathing status was perpetuated by the cold and callous miser called the machine. Anthropocentrism became the norm as individuals deprived nature of the superior status afforded to her through God, and humans thrust themselves into the role of superior being. Therefore, a machine meant to destruct images of life could not be seen as living, too, even if that image was likened to a genderless monster.

What replaced these images was the violent and virulent relationship between the scientific method and power through the writings of Francis Bacon and his perpetuation of empiricism, expounded upon by the work of Descartes and his severing of the ties between mind and body, that the Earth would lose its living status and the machine would come to dominate modern-day conversation (Merchant, 1983; Mies & Shiva, 1993). Shiva (1993) characterizes the scientific revolution as a reductionist revolution in that it not only "reduced the capacity of humans to know nature both by excluding other knowers and other ways of knowing" (p. 23), but also by manipulating knowledge produced out of the scientific revolution as "inert and fragmented matter" (p. 23).

This is evidenced in Shiva's account of her experience with the birth of her child. Having prepared herself for natural childbirth, Shiva was shocked to hear the doctor's insistence on a cesarean section due to her age (30) and how this was

sufficient evidence to solicit unnatural procedures of childbirth. Now here is Shiva, a physicist, philosopher, ecofeminist and environmental activist, and her doctor identifies Shiva as the unknowing mother, the unknowing body, while the doctor is perceived as the knowing expert, the knowing mind (1993). Shiva, however, discredited the doctors reasoning and walked out of the delivery room and into another hospital across town where she delivered her baby naturally with no complications. Through this experience, Shiva (1993) identified a reductionist scientific perspective as perpetuating an artificial division between the "non-specialist knowledge" (p. 23) of the individual who is ignorant to the specialists in a particular scientific field, who are then able to hide their own ignorance behind the artificial division that was created. I will return to this momentarily.

These modern-day fathers/specialists of natural science depicted Earth as a machine while retaining the female status of nature as "an evil, dangerous woman who must be dominated" (Mies, 1993, p. 45), not through the phallus for that is but an extension of animal nature, but through the brain of man. Mies builds on Merchant's historical account of the destruction of Earth as living by identifying how "Women, nature, and foreign peoples and countries are the *colonies of White Man*" (1993, p. 43); that without this colonization of particular people,

cultures and societies, Western Civilization would not exist as it does today, nor would its violent interpretations of the natural sciences and technology (Mies, 1993).

Mies further contends Bacon, in particular, conducted a "witch-hunt against Mother Nature" (p. 44) and, through this witch-hunt, was able to reduce the idea of the Earth and nature as living to a mere superstition that was conquered through the production of new weaponry; new weaponry able to defeat any sort of revenge Mother Earth railed against her inhabitants. Here we have the interconnections between the scientific revolution and the reductionist view as depicted by Shiva and the struggle for power through Bacon's actions. The struggle, however, was won by the pairing of science with the military presence that perpetuated man's dominating presence. Mies (1993) tells us, "Man can best maintain dominion over this whore [nature] through his mind, his intellect. Of course, only if he has the material military power behind him, as otherwise *mind is as impotent as a withered stick*" (p. 45). Mies also asserts man himself desired to be creators. In order to accomplish this goal, science and man had to strip "women and nature of their subjectiveness, that is, of their own dignity, their spirituality, and turn them into lifeless controllable matter" (p. 45). This lifeless matter became the "raw materials" needed to feed the machine society now believed the Earth to be.

As the science emerging out of man's thoughts evolved and progressed, so, too did these machines for which to control nature and exploit the Earth, bringing us to what has been depicted as *The Turning Point* (Capra, 1982), *The Great Turning* (Korten, 2006), the *Threshold* (Hartmann, 2009), the *endgame*, Volumes I and II (Jensen, 2006a; 2006b), from *The Limits to Growth* (Meadows, Meadows, Randers, & Behrens, 1972) to *Beyond the Limits* (Meadows, Meadows, & Randers, 1992) finally settling on *The More: A Journey to Sustainability* (Leigh, 2001); predominantly male interpretations of the current ecological crisis, I might add. This is a particularly poignant observation when one considers the identification and historical placement of the feminine pronoun onto the Earth itself as well as nature and the ecofeminist desire to eliminate "male-gender power and privilege" (Warren, 1997, p. 3).

Greta Gaard (1997) teaches "at the root of ecofeminism is the understanding that the many systems of oppression are mutually reinforcing" (p. 114) and asserts the liberation of women from these multiple sites of oppression cannot be fully recognized without also freeing nature from its oppression as well (1997). These interconnecting sites of oppression are evidenced in Shiva's experience of childbirth. The original doctor who insisted on a cesarean section due to Shiva's "old-age (30)" was female. So Shiva's experience was not one of a

male figure oppressing her due to her subordinate female status; rather, this experience was of a female doctor in a field dominated by men who was engaging the division between the specialized medicine, thus perpetuating her place as "knower," and the perceived lack of knowledge on the part of Shiva. And this further evidences how the female doctor herself becomes subordinate to the dominating ideologies of science through the arbitrary divisions she perpetuated in her insistence on conducting the cesarean section.

To Shiva, actions such as this reduce the female to nothing more than a mechanical device that is utilized in order for the *doctor* to produce the baby, not the mother. In turn, this reduces Mother Earth's regenerative processes to that which man manipulates through multiple sites of power in his penetration of the Earth's surface for the minerals she produces within her womb. This manipulation of patriarchy in science and reproduction technologies is why Shiva (1993) suggests an ecofeminist perspective is necessary because it is able to transcend these categories of power. She asserts ecofeminism is "broader and deeper because it locates production and consumption within the context of regeneration" (p. 33). And the ecological interconnections constructed out of the already existing relationship between women and nature can be viewed in such a way that exposes the destructive nature a reductionist

scientific perspective has inflicted on living organisms. Thus, ecofeminism opens the necessary space to explore how these destructions both sustain and maintain the patriarchal narrative associated with the scientific revolution.

To be fair, not all scientists share the reductionist view depicted by Shiva. Capra, in particular, discusses the interconnections between the feminist movement and the ecology movement and their ability to challenge the "patriarchal order and value system" (2002, p. 265). And his engagement of systems theory promotes the idea that the Earth, as a living Being, cannot be reduced to isolated parts to be examined; rather, these parts only make ecological "sense" when the parts are paired with the whole of the ecosphere and the societies and cultures that are constructed out of these living environments. And for Capra, the "science of sustainable living" (Title by Capra, 2002) not only extends the life of humans and the integrity of the Earth, but also perpetuates the idea of the living Earth as an interconnected web of relations that will necessarily include the arguments of the women's and ecology movement. The question to ask at this juncture then is *if* sustainability is that liberating force or a maintainability of the economic oppression of women for patriarchal power and capital gains.

Controlling Population/Controlling Women/Controlling Earth-

Population first became an issue when Thomas Malthus calculated that human populations increase at a geometric ratio (1, 2, 4, 8, 16...) while the resources needed to sustain that growth increase arithmetically (1, 2, 3, 4, 5...) (2008/1798). As a result of differing ratio increases, humanity would eventually reach a point where it would no longer be supported by the resources the Earth provides. Malthus tells us, "these considerations [of population growth] are calculated to prevent, and certainly do prevent, a very great number in all civilized nations from pursuing the dictate of nature in an early attachment to one woman" (2008/1798, p. 18).

Malthus' essay was written at a time already depicted as a reconstruction of the image of Earth as living to that of a machine. His words leave little doubt as to which construction of meaning he chose to believe, and that other understandings, such as that of a living Earth, limited the dictatorship man must have on nature, on that one woman. Malthus premised his human growth ratio on the belief that passions erupting between the sexes would never cease to exist, and through this passion, human population would grow at a rate that far exceeds the growth of its resources.

Flash forward two hundred years later to Thomas Friedman's *Hot, Flat, and Crowded* (2008) and you will find traces of

Malthus' argument in his writing. While traversing the globe researching the effects of globalization, Friedman identified overpopulation as one of the most potentially devastating factors influencing the fate of humankind (the other being global warming). According to Friedman, by the year 2053, an estimated 9 billion people will be living on the planet (a 2.5 billion increase from a 2007 U.N. report cited in his work). He also claims this increase will be seen in largely underdeveloped countries whereas "more developed regions will remain largely unchanged" (p. 28); but as immigration to developing countries continues to soar, the influx of people will be felt in first-world countries as well (2008).

In terms of sustainability, population is cited by the U.N.'s DESD, which argues that in order to create "appropriate *institutional* conditions" (2004, *Agenda 21*, chapter 5, objective 52c, emphasis added), "population assistance should be coordinated with bilateral and multilateral donors to ensure that population needs and requirements of all developing countries are addressed, fully respecting the overall coordinating responsibility and the choice and strategies of the recipient countries" (2004, *Agenda 21*, chapter 5, objective 54) These donors are listed as "political, indigenous, religious and traditional *authorities*, the private sector and the national

scientific community" (2004, *Agenda 21*, chapter 5, objective 53, emphasis added).

It is in these authoritative and institutional settings that we find the masculine pronoun *maintaining* control of their female counterparts while *sustaining* the domination of nature and the Earth via the very organizations working to alleviate women from oppressive circumstances. With all of the good intentions behind the U.N. document on our common future, Shiva suggests that from women's perspectives, "sustainability without environmental justice is impossible, and environmental justice is impossible without justice between sexes and generations" (1993, p. 85). Indeed, the *Earth Charter* includes as one of its principles the need for environmental justice. But it promotes these ideas through the identification of "authority" figures and institutions who have historically excluded women from these debates.

Now, with sustainability focused on the "concern for the survival of the planet" (Shiva, 1993, p. 86), concerns regarding overpopulation have made it acceptable to promote population control programs. Through these programs, women's bodies become sites of brutal invasions in an effort to eliminate the human-created condition of over-population. Mies asserts issues of population are ecofeminine issues in that controlling a female's reproductive choices is to continue to control Mother Earth and

her reproductive abilities (1993). Mies further suggests the "myth of overpopulation in the poor countries serves as justification for the [sustainable] development of ever more anti-fertility technology" (1993, p. 189). These new reproductive technologies are sexist in what Mies declares as the disruption between women and their unborn child, transforming their relationship into an "industrial process" (p. 186) controlled by medical experts; what the U.N. calls the "authority" of the scientific community.

Mies (1993) teaches:

Under patriarchy she [the mother] has always been an object for male subjects, but in the new reproductive technologies she is no longer one whole object but a series of objects which can be isolated, examined, recombined, sold, hired, or simply thrown away...This means that the integrity of the woman as a human person, an individual, as an integral indivisible being, is destroyed (p. 186; see also, Daly, 1990/1978).

To Mies (1993), the freeing capacity of a woman's choice to use contraceptives so that she may ultimately decide her own reproductive choices has been overshadowed by the scientific desire to treat fertility "as a disease" (p. 188). This disease mentality has been supported by pharmaceutical companies who seek to profit from the sale of contraceptive devices, the

medical field who have reduced fertility and sterility to biological "categories" as well as women who Mies depicts as becoming ill from the very contraceptives they are using to gain their freedom of choice.

Mies further asserts the reduction of fertility and sterility as concrete categories of disease beyond the influence of social constructions is promulgated by the World Health Organization (WHO), who receives much support from the U.N., and the WHO's support of testing programs which Mies contends reduces women in third-world countries to nothing more than "guinea-pigs for multinational drug companies" (1993, p. 192). This is evidenced in Mies' example of the research conducted on women in India on behalf of a German-based pharmaceutical company, sponsored by WHO. This company developed an injectable contraceptive to be used on women in India with long-lasting effects. This was of particular importance in the use of the contraceptive on women deemed as illiterate, who "according to the understanding of population planners, are incapable of exercising any rational control over their reproductive functions" (Mies, 1993, p. 193).

This is hardly the liberating experience the feminist movement is seeking in relation to reproductive choices. And the current desire for sustainability, with attention paid to population issues, maintains this assault on the female and

the mother through the authority vested in a scientific community due to their prescribed status by the U.N. as *authoritative*.

Now, DESD advocates that the time period between 2005 and 2014 is the decade for the *education* of sustainable development; that we must "get the word out" regarding our planetary crisis. And poverty and population issues intertwine in this curriculum which, in its desire to sustain the planet, still refuses to engage individuals outside of these authoritative entities, including the very women it claims to advocate on behalf of. What this does is diminish the capacity of freedom and free choice in women in third-world countries who, by authority of the document intended to protect them, only subjects them further to medical/scientific fertility and sterility treatments as evidenced by the test programs conducted in India (Mies, 1993). Not only does the document regarding sustainability fail to challenge the patriarchal narrative, it bolsters the position of the scientific narrative in its failure.

Sustainability, Curriculum, and the Ability to Account-

If sustainability has accomplished anything to date, it has succeeded in bringing ecology back into the forefront of its own debate. And through ecology, there appears to be a return of the "Earth as organic" narrative and has sparked a flame of inquiry and opposition that is forcing others to account for the

exploitation of the Earth, Gaia, as she has since been aptly named. But as ecology moves forward a step or two, other aspects of sustainability disappears into the darkness and hides behind the dialogue. One such narrative is accountability.

Accountability is what protesters advocating against BP desired; accountability is what the U.N. demands in relation to the Decade of Education for Sustainable Development (DESD); accountability to the citizens of this country regarding government action is what Obama has attempted to establish in his administration. I have often speculated on whether or not Obama has read *Agenda 21* and is implementing some of its strategies in his policy. In *Agenda 21*, the document proclaims as one of its overall objectives:

The international community should aim at finding ways and means of achieving a better functioning and enhanced transparency of commodity markets, greater diversification of the commodity sector in developing economies within a macroeconomic framework that takes into consideration a country's economic structure, resource endowments and market opportunities, and better management of natural resources that takes into account the necessities of sustainable development (2004, Chapter 2, objective 11).

Agenda 21 also advocates for transparency with an "environmental/trade and developmental agenda" (2004, Chapter 2,

objective 22). This transparency is reverberated in Obama's consistent call for transparency in government actions: transparency in the healthcare debate in Congress (July 22, 2009), calling for transparency to be the "touchstone" of his administration (January 21, 2009) and signing an executive order promoting high ethical standards through transparency in his officials (April 23, 2009).

According to Obama, transparency is perpetuated in individuals by holding them accountable (April 23, 2009). Indeed, Obama has utilized this concept in many contexts: holding corporations accountable (October 1, 2008), schools accountable (March 27, 2009), accountability in relation to government spending (January 6, 2009), in relation to health services for veterans (May 6, 2010), just to name a few. Likewise, *Agenda 21* calls for organizations such as GATT and UNCTAD (the United Nations Conference on Trade and Development) to develop and implement measuring devices to gather data on multiple concepts such as gender-specific categories to "facilitate the design of focused programmes and activities" (2004, chapter 3, objective 9), expounding databases to include measurements of production and consumption and "develop methodologies for analyzing them" (2004, chapter 4, objective 10), a desire to build national databases on demographics in an effort to "disaggregate data by ecological region" (2004,

chapter 5, objective 24b), and seeking measurement devices in regards to the management of health-care in "intra-urban and intra-district variations" (Chapter 6, objective 36), just to name a few.

Transparency and accountability, according to *Agenda 21* and Obama, appear to work for the benefit of sustainable development. Maybe they do. I cannot attest to that. And I am in no way suggesting the policies promoted by the U.N. and Obama are destructive to society and its people. What I am suggesting is that this apparent drive to make all things accountable mimics Shiva's depiction of the scientific revolution as a reductionist revolution in that by reducing all things to that which can be measured and accounted for runs the risk of reducing, perhaps even erasing, those arbitrary aspects of life which defy any form of accounting: emotions, thoughts, feelings, oppressions of individuals such as women through programs supported by the U.N. such as WHO, oppressions of children in the United States who fail to perform at some concrete level of proficiency, differences in race, class, gender, sexuality, etc. Here is where the President and the U.N. can learn a lesson on how accountability can become a dominating force that undermines any potential good intentions from the United States' educational implementation of that term. Here is where Obama can indeed lead. This position as leader, however, is not

particularly a badge of honor we should be celebrating; rather, I see it as an emblem of great shame.

Education is painfully aware of the concept of accountability and its ability to transform the environment from one of learning *with* children to one of forcing arbitrary facts *onto* children for the purpose of regurgitating these facts on the state-mandated high-stakes test. What I wish to accomplish at this juncture is to (re)construct the relationship between sustainability and curriculum through the scientific narrative of accountability and measurement in an effort to demonstrate how these are actually the same argument, spawned from the same scientific flame.

To reflect, *Agenda 21* defines sustainability in terms of development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (2004). As the term became interpreted through various U.N. organizations and conferences, the term began its own movement to become a household name. According to the U.N., sustainable development was to be addressed on the national level through environmental regulations as well as internationally through such organizations as the World Bank and the IMF. Driven by the economic ideology of a global free-market economy and ecological interconnections that exist between the two, the U.N. began advocating for policies and ideas that

equally accounted for both the economy and its ecological impact. Once government officials across the globe began to consider these very unequal concepts, sustainable development would then trickle down to colleges and universities, where administrations would be responsible for developing the idea of sustainability into its policies.

As the concept evolved, colleges and universities began offering degrees in sustainable development that focused on urban and rural planning and development. Some universities began offering outposts of sustainability such as the one located at Georgia Southern University. Sustainability became a buzz word in science, and as the concept worked its way through the system of language, the environmental movement that was already in existence became subsumed into the new terminology. The concept was working exactly as Corcoran suggested in his lecture. The average citizen was consuming the message that sustainability was about saving the planet for future generations. And this salvation would be obtained through the very economy that was creating the majority of the environmental degradations.

Recall in element one how Edwards identified three components to the sustainability revolution: economy, ecology and equity. Edwards, however, does include a fourth "E," which many outside of the field of curriculum exclude altogether. He

calls this "E" education and states:

Education is the catalyst for helping everyone understand the dynamic nature of the interrelationship of the three Es. Through education we gain knowledge with which to overcome the cognitive and normative-and hence emotional-obstacles to understanding our global dilemma. Through education, sustainability can become firmly established within the existing value structure of societies while simultaneously helping that value structure evolve toward a more viable approach to systemic global problems (2005, p. 23).

For Edwards, the other three E's are made possible only through a "strong commitment" to education. Edwards, however, fails to define what that commitment may look like. Do we sustain already existing structures of standards and measurement that dominate the field today? Or do we work in opposition to these dominant forms of knowledge?

This is an important question because I contend that if we choose to sustain current teaching practices of teaching to a state-mandated test as prescribed by NCLB, then any sort of ecological equilibrium that may be achieved in the future will not be sustainable when the students of today assume their role in society tomorrow. They will not be able to think creatively and critically in an effort to question future experiences

because they will have been taught (trained) through a monologue of instruction as prescribed by each individual state institution. So when Edwards suggests that education offers knowledge that liberates us from the "cognitive and normative...obstacles" (2005. P. 23), he seems to be suggesting that liberation can only occur within the "existing value structure[s]" (p. 23) found in education.

Currently, however, the only structure that holds value to schools is the structure provided by a scan-tron sheet. And Edwards fails to challenge the accountability ideology; rather, he perpetuates its existence through examples such as the "Principles of Sustainable Development" being implemented in the state of Minnesota (2005) where "measureable indicators are described as a tool to 'guide public policies and private actions'" (2005, p. 35). Edwards also demonstrates how the "Equator Principles," (p. 54) which are guidelines for financial institutions and by the Institutional Finance corporation (a division of the World Bank) are used as standards to measure if a company is "making genuine progress towards sustainability" (2005, p. 54).

Again, it is not for me to testify as to the intentions behind various accountability devices. But I find it disconcerting that so much of our lives now have to be accounted for to those in authority positions. Elliot Eisner suggests "In

our desire to standardize curriculums and to apply common standards, we have undermined the importance of genuinely meaningful learning" (1988, p. 27). And this is because we have stripped the power of curriculum and assessment away from those who inhabit classroom spaces. Likewise, when we standardize sustainability and reduce it to that which can be accounted for, we potentially cease examining the interdependent, dynamic phenomena that is in constant flux.

This undermining of meaning and genuine learning is reiterated in the words of Shapiro (2006) who suggests, "The typical American classroom, trapped more than ever by the dead hand of 'standards' and 'accountability,' is a world that is emotionally, intellectually, and morally disconnected from the real and pressing demands of the human condition" (p. 177). What I fear we are witnessing is the emotional, intellectual, moral and spiritual disconnect between human beings and the Earth and nature. What I fear is that our ecological interconnections are being undermined by the standards and measurements being promoted by sustainability because it reduces these interconnections to external influences constructed by the accountability device and perpetuates the disconnect exemplified in schools. Because schools do not see the ecological connections between their instruction, their institution, and the rest of the natural world, the disconnect living within

these environments only serves to perpetuate its own cycle of disconnection. Because accountability devices do not concern themselves with external ecological connections beyond what a device accounts for, the disconnect between the accounting device and what is actually being measured harbors the possibility of perpetuating *its* own cycle of disconnection.

According to *Agenda 21*, "the founding value of ESD is respect: respect for others, respect in the present and for future generations, respect for the planet and what it provides to us...ESD wants to challenge us all to adopt new behaviours and practices to secure our future" (*Agenda 21*, 2004). But when we have a national educational policy such as NCLB that pits student against student, school against school, categorizing all who do not meet an arbitrary level of success as failures, we are disrespecting their individuality. Some school administrations such as my former principal are not even warranting those students who perform poorly on high-stakes test the respect of providing them with a public education; not leaving them behind, instead choosing to leave them out altogether. What the U.N. presents is an educational idea that reads beautifully on paper, but its implementation in this particular country is anything but beautiful. And with the United States and American transnational corporations influence on the globalization movement, the potential for implementing

disastrous U.S. educational policies globally becomes a real possibility.

Agenda 21 also advocates for "values-based learning," but the document fails to acknowledge whose values are to be taught. In many sections of the document, there is an advocacy for local-based values, but then it suggests these values can be addressed through a "national development plan." The document does not proclaim to be a global curriculum, but the very fact that it offers a plan for a global network between nations through the penetration of educational systems, beginning with NGO's and governing bodies on down to colleges and universities through the promotion of *sustainable* development, leads me to question if DESD is hiding *global* development behind an environmentally-friendly term, which, in effect, becomes a global curriculum. The goals and objectives stated, such as the facilitation of "networking and collaboration among stakeholders in ESD" (*Agenda 21*, 2004), reads more like a global checklist of standards and objectives each nation must meet that was written by global corporations. "Networking" and "Stakeholders" are not terms that reflect an ecological connection between curriculum and experiences. They are corporate terms that reflect the isolation and fragmentation evidenced in institutions of education across this country.

Peter Taubman (2009) offers the most thorough explanation of the evolution of the accountability and standards movement in education to date. He tells us:

Like a declaration of war, it [NCLB] has mobilized education departments, agencies and associations at local, state, and national levels. With a clarion call to finally address our nation's racial inequalities in education, to shine a light on the 'soft bigotry of low expectations' and to ensure that no child was left behind and that every child learned, the architects of NCLB...proclaimed NCLB as the way to hold schools, teachers, and students accountable (p. 28).

In this statement, Taubman raises the issue of inequality (an element of sustainability) and NCLB's stated desire to eradicate this injustice from the halls of schools across the country. What is also of particular interest in Taubman's text is the recognition of Bush's desire to have all students, 100%, in a K-12 public school setting as demonstrating proficiency by the year 2014, the same exact year the goals set forth by the U.N.'s DESD is to be accomplished. Bush did not subscribe to issues regarding global warming and the environment. But the coincidence between the two dates and the similarity in desires to account for the implementation of standards as prescribed by each state in the U.S. and the U.N.'s desire for each nation to

account for populations and to account for how industry in that nation extracts non/renewable resources from the Earth cannot go unchallenged.

The relationship between Bush's NCLB and the U.N.'s DESD is how the U.N. defines "local" in terms of nation/states rather than particular localities within that nation/state. And now, according to the National Governors Association website, individual states in the U.S. are enlisting in the "common core standards" (2010, NGA Website), thus promoting a local curriculum by redefining locality to mean the entire nation in the process. I have no doubt that future educational accounting practices will reflect these core concepts in the years to come; this action taken in the name of efficiency and limiting the extraneous variables between states when comparisons are made.

What is also disconcerting is how, through accountability, students have been reduced to nothing more than a statistic, carefully categorized under the heading of proficiency, lacking proficiency, or exceeding proficiency. No longer are students depicted as individual children, with different experiences, abilities and desires; rather, they have been subsumed under the umbrella of homogenized learner who is/not successful in terms of a single accounting device. And if, as Orr suggests, we are to live in moderation rather than self-indulgence (2004), then we must now be prepared to account for that moderation in terms

of how much oil is extracted from the Earth, how much trash is deposited in landfills, how many trees are cut down, how much acreage of the rainforests are clear-cut for single-crop rotations, how much pollution enters the watershed, acid rain in the air, Carbon Dioxide emissions into the atmosphere, global warming, ozone depletion, and so on.

The question, of course, is who will be defining what moderation looks like. Who will be speaking on behalf of differences in race, class, gender divisions when the desire to homogenize thought fails to account for these differences? Who will define what an appropriate amount of oil extraction, waste deposits in landfills, clear-cutting, pollution, etc. will be acceptable to sustain the planet? I imagine the scientific community whose authority is bolstered by Governments and NGO's. And the dialogue that I believe is fundamental in the expression of differences is being threatened by a monologue written in terms of abilities: the ability to sustain, the ability to maintain, and, above all else, the ability to account.

The DESD states as one of its objectives a desire to "focus on the empowerment of local and community groups through the principle of delegating authority, accountability and resources to the most appropriate level to ensure that the programme will be geographically and ecologically specific" (*Agenda 21*, 2004). What this teaches us is that any voice outside of these

authoritative positions has no bearing on issues of population, poverty, ecology, environment, education, or economy. What this document perpetuates is an erasure of the individual into a collective geographic body of agreement since dissenting voices on the outside of authorities are not recognized.

This silencing can certainly be confirmed by me and other teachers who were never even invited to conversations regarding educational policy. And this fails to bolster the idea of sustainability as a liberating praxis for individuals who advocate for the environment (which includes education); rather, it ensures the security of race, class, and gender oppressions through its advancement of authoritative institutions through the already existing narrative of science in conjunction with the emerging narrative of accountability. And as Lyotard suggested in element one, the use of narratives have an agreed upon value or belief between a "sender and addressee of a statement" (1984/1979, xxiii). And these narratives are seeking to define knowledge in terms of what can be accounted for. To illustrate this point, let us examine the language more closely.

The Greening of the Docile Body-

What are we sustaining? This is a question I have posited at different locations in an effort to demonstrate that sustainability as only an ecological and environmental issue only serves the possibility of erasing other interpretations

that emerge outside of existing dialogue. By now, I hope I have established that sustainability is *not only* its own conceptual framing of the environment, *but also* the maintaining of the economy, patriarchy, and science through the accounting devices read by authoritative entities. The question now is how the curriculum of sustainability is working to infiltrate and influence individual social constructions regarding the environment. I have already discussed how this term is not a "bottom-up" grassroots concept but a "top-down" approach working its way through language systems beginning with NGO's then trickling down to colleges and universities.

But how is the curriculum reaching the larger population outside of these authoritative institutions while perpetuating the silence needed to meet its goals? The answer, to Foucault (1995/1977), is not to encourage inquisitional or oppositional bodies but to produce docile bodies that refrain from inquiry outside of carefully controlled bodies of knowledge. Foucault tells us:

In becoming the target for new mechanisms of power, the body is offered up to new forms of knowledge. It is the body of exercise, rather than of speculative physics; a body manipulated by authority, rather than imbued with animal spirits; a body of useful training and not of rational mechanics but one in which, by virtue of that very

fact, a number of natural requirements and functional constraints are beginning to emerge (p. 155).

The training Foucault speaks of are emulated in the standards and measurement devices used in schools that are replacing the spirit and joy of meaningful learning and engagement. And this training is working through a culture of fear to maintain a prescribed place for teachers, always subject to the policing and watchful eye of an administration who guards the training process. This is accomplished by a teacher's acquiescence of power by placing the standards being measured, daily objectives or essential questions on the board for all to see; by the lesson plan she submits to the office that dictates how she will manage her time as she trains her students on the ability to regurgitate said standards.

All of this occurs relentlessly until such a time when the panopticon is so instilled in the teacher's thoughts and actions that the behavior becomes "normal." The teacher becomes a docile body. And what helps sustain this docile body are the ecological interconnections between the culture of fear felt in schools to the culture of fear perpetuated in society through the loss of one's pay. These are the acts she feels she must engage in order to maintain her salary, which serves to maintain her position in her community and society in general. She does not mean to betray her profession. But she does. And this betrayal thrusts

her into a battle between love and strife, from being oppressed by school administrations and governmental policies into the violent reaction of oppressing her students by demanding they learn isolated facts because they are going to "be on the test." While she may be perched in front of her classroom, leaning on the authority granted by her podium, in actuality, her true position is in the middle, caught between the love she claims for her students and the strife of authoritative administrations she feels she must perpetuate. So she moves. To where I do not know, for the differences in her own lived experiences influence which direction she will take. Regardless of whether her movement is towards love or towards strife, she moves.

This scenario is similar to how I see sustainability at this moment. In order to demonstrate this movement, I will focus my attention on strife for the remainder of this element, exploring sustainability as a movement of love in element four. This movement towards strife emulates Foucault's depiction of the docile body who becomes his own policeman until such a time when the behavior becomes normal. I will engage the use of a hypothetical man for my demonstration.

Through his life, the years do not matter, the industrial revolution, corporations and the (non) governing bodies which support them, have raped, robbed, and mutilated Mother Earth so much so that she is virtually unrecognizable to her appearance

from just one hundred years ago. He has been raised in this destruction and barely recognizes these destructions as anything *but* normal. But some people see. And they oppose this destruction whole-heartedly.

Ecology and environmental activism, through protests and the act of writing exemplified in the work of Rachel Carson and others depicted in the previous elements, emerge, questioning these callous acts of environmental oppression. Questions on how to sustain human existence emerge once we reach a "fixed point" where we overpopulate and outgrow the resources available to us. But sustainability is not a concept *of* the people, *by* the people or even *with* the people. No, sustainability is a concept *for* the authorities *on behalf of* the people. And the authorities are sleeping with corporate entities such as the WTO and IMF, who promote lending practices that perpetuate trans-national corporations' assault on third-world countries through globalization, and science which cannot help but be influenced by the industry that secures funding for its research.

Sustainability desires for these entities, not to change their exploitative practices on the Earth, but to slow down and moderate these developmental practices. We can naturalize capitalism (Hawken, Lovins, & Lovins, 1999) all day long, but it is still capitalism, left unchallenged and secure. We can recycle, reduce and reuse our plastic and glass but it does not

diminish the fact that we still use, and purchase, these products thus securing the production/consumption of these goods.

So what happens to the gentleman I was speaking of just a moment ago? He "goes green," that is what happens. I am fascinated at the pattern of distinction between "going green" and sustainability. In my observations, "going green" appears to be a marketing ploy in an effort to greenwash corporate and industrial practices so they appear to onlookers as environmental friendly (as demonstrated by BP's website declarations discussed in element two). Sustainability appears to be an authoritative quest to sustain humanity by continuing corporate and industrial practices, only now in moderation. Frankly, I see no difference. And here comes the production of the docile body; for in these economically unstable times, the gentleman has reduced consumption and self-indulgence in an effort to sustain his own existence. The desires he once consumed at his leisure have been reduced somewhat to only those expenditures that he needs. So how the culture defines "needs" must be transformed; these needs must now reflect the collective need to sustain the planet.

Propaganda and the manufacturing of consent (Chomsky & Herman, 1988) assist in this transformation by soliciting consumer dollars through advertising their environmentally sound

choices such as those found on Starbucks coffee cups where "You and Starbucks" (Starbucks cup, purchased August 20, 2010) are supporting responsible coffee-bean growth by your \$4.19 purchase. You *need* to buy this product; and if you do not frequent this establishment, you are acting irresponsible to the environment. You *need* to purchase green products at the local grocery store. Yet, these products cost one to two dollars more than comparable products that include the same materials such as "Simple Green" household cleaning products. According to a local real estate agent, clients who wish to purchase or construct a green home must account for multiple building standards such as energy-efficient windows and solar roofing products (Healy, 2009, personal communication).

These demands are both expensive and exclusive in that "going green" perpetuates class privilege and discriminates against a population who would love to protect the environment but simply cannot afford to do so. Yet we need them. We need green houses and overpriced coffee and we need to shop at eco Wal-mart stores such as those in Ohio, Kansas, and Texas because it is these environmentally-conscious acts that will sustain our existence. And the message to the public in general and to the hypothetical gentleman in particular is that individual needs must also include the purchased needs of products that sustain

the planet so that future generations will have ample access to the same resources he does at this time.

Here comes the panopticon. After having been bombarded with messages of fear and annihilation of the human race, he begins to believe that if he does not act sustainably, he will suffer a horrendous fate at the hands of an environmental catastrophe. He begins to police himself. He switches to carbon fluorescent light bulbs (securing this industry) and recycles plastic and glass (ensuring the stability of that market). He turns off the water faucet while brushing his teeth because that is what he has been trained to do (yet his monthly bill does not decrease). He even purchases an environmentally-friendly compact automobile.

Through his actions and his movement towards/out of strife, he perpetuates the normalization of "going green" and sustainability. At least, that is what Thomas Friedman would suggest. Friedman offers two goals to meet while immersed in the "green revolution" (Yes, our hypothetical male has joined the revolution) in order to declare the revolution a success. The first goal is that "Corporations have to change or die" (2009, video file). I contend corporations are changing: changing the way their exploitative practices are perceived by manipulating individual "needs." We can account for that with the example of Starbucks and the price of greening houses and household

products. And this change helps to both sustain and maintain a corporation's existence.

The other goal is to make the word disappear. When the word "green" disappears from the conversation, the action behind the word has become so normal that it also becomes an unconscious act (Friedman, 2009, video file). Friedman states, "There will be no such thing as a green building. There will just be a building. And you will not be able to build it unless it has the highest energy and sustainability levels" (2009, video file). This normalization of the term(s) is fine *if* the hypothetical male wants to sustain *and* maintain the economic assumptions behind it because if the environment is what he is advocating for, he will continue to inquire and oppose this normalization. He is going to ask what purpose and for whose benefit the building is for. At what cost to the environment and its people? Is the building worth clear-cutting the land to secure its future place? He will inquire as to the reasons behind the location. Are the contractors escaping cities and downtown areas in an effort to entice suburban dwellers and perpetuate the continued decay of urban settings? Does this building also perpetuate long commutes in the over-sized vehicles purchased back in element two so that petroleum prices may remain stable? How will these building "authorities" account for the different questions generated in opposition to their *destruction*,

construction, and individual reconstructions of the exact same event?

And in his desire to hold corporations and governing bodies to the same accounting devices he is now being held to through emerging ideologies founded on abilities, he will be dismissed, silenced, categorized as a deviant thinker outside the norm by the very authorities he helped put in place through his failure to challenge the term before it quietly subsided into unconsciousness. This act of violence perpetuates a strife between his values and his actions. Like the teacher who falls prey to her own oppression, in turn transferring that anxiety onto unsuspecting students, so, too, does the hypothetical man transfer his anxiety back onto the environment, on Mother Earth. Because he no longer feels that his actions make a difference in the debate, he ceases talk, falls silent and allows hegemony to take control.

Shapiro (2006) likens normality to a straightjacket "that restricts diverse and imaginative forms of human practice, tastes, and forms of expression. It is a club that has been wielded, time and again, to repress and censor human beings" (p. 49). The teacher and the hypothetical gentleman in my example have been beaten by these clubs into submitting to what schools or individuals inside the "norm" define as knowledge or sustainability. But these examples are not so hypothetical. The

docile body is a constant creation, an evolution always in need of tweaking until such a time when the straightjacket is secure and multiple interpretations are homogenized. And here is how that scenario may conclude:

The teacher says, after relinquishing all hope:

"Accountability is here to stay. I must now learn to live with it."

The hypothetical male says, after relinquishing all hope of ever being heard:

"Sustainability and environmental oppression are here to stay. I must now learn to live with it."

And the conversation comes to a halt, having been handed over to monologue through the acquiescence of power, through defeat and the violence that silence provokes. There is no longer movement, just stale and viral stagnation.

But it does not have to be...

Element Four

Questioning Accountability, Sustaining Responsibility, and Complicating Gifts

Water: Matter in an impure state; a transparent liquid, in this case, to make transparent my contention that accountability as an economy marginalizes the ecological responsibilities we have to the Earth and to others.

Water as a Metaphor for Curriculum-

The use of water as a metaphor is a powerful engagement of the elements in terms of curriculum. Ming Fang He (2003) captures water's persistent and perpetual motion as she embodies its fluidity of movement between the experience of "cross-cultural lives and cross-cultural identities" (xvii), both geographically and intellectually. He (2003) explores the ecological connections between life in China and life in Canada by situating these connections with the linking capacities found in multiple bodies of water:

The eastern and western landmasses are linked by oceans. Within each landmass, riverscapes are integral parts of the landscapes. The ever-shifting beds, banks and groundwater of rivers, meadows, forests, marshes, backwaters of its floodplain, the snowmelt and rainfall from mountain peaks and hilltops, the rivulets of mountain streams and their tributaries, lakes, seas and oceans create a flow like that

experienced in the moving between Chinese and Western lives (He, 2003, xviii-xix).

This merging of multiple bodies of water evokes the transformative possibilities experience offers us. The experiences overlap, blurring the boundaries where one body of water flows gently into another, potentially producing an awakening to one's identity, one's understanding of the self. Curriculum as a "river forever flowing" (He, 2003) connotes the fluidity of her experience in-between these two cultures; experience not "set in stone," but always changing, evolving, growing. He's description embraces the life of Mother Earth as more than a machine as the clear, fluid blood of her Being courses through her body; the body, of course, being the "landscapes of learning" (Title by Greene, 1978).

Greene's multiple landscapes identify the struggles educators experience when teaching in a passive environment; one that promotes monologue and the death of imagination and critical exploration desperately needed if we are to transcend the passivity dictated to us by account-seeking authorities (1978). Greene (1978) implores of us to be "wide awake," to call attention to these landscapes so that, in the midst of authoritative institutions of schooling and policies regarding sustainability, we may come to realize "that transformations are

conceivable, that learning is stimulated by a sense of future possibility and by a sense of what might be" (p. 3-4).

These interconnecting sites where water and land meet reflect Empedocles' attention to the "cosmic process as a whole" (Millerd-Smertenko, 1923, p. 27); the "whole" being our daily engagement of lived experiences in a world of conflicting tendencies. The "World-story" is what fascinated him. But the story itself becomes stagnated if it *only* writes of love or *only* writes of strife. Like the multiple rivers and landscapes converging at varying points of understanding, Empedocles viewed the world-story as a convergence of the roots into one being through love; but just as quickly as they converged, strife rips apart the elements in a jealous rage, exiling them from the gentle touch of the others.

Likewise, sustainability as only an administrative, governmental, authoritative, scientific and accounting issue works to promote strife that only serves to delegitimize other ways of knowing, thus promoting atrophy of the landscapes we call home. In this element, I wish to bring attention to another perspective of sustainability; one that is personal and extends out from the elements of the Earth where I situate curriculum. I credit this situated-ness to Pinar's contention that curriculum theory is interdisciplinary, founded on the desire to understand

the curricular relationships we engage as part of one's lived experience (2004).

In schools, however, the experiences we engage are tightly controlled through language, standards, and practices that must be measured and accounted for. Inhabitants of these environments become disconnected from each other as accountability devices seek to undermine relationships built between teachers and students by diverting attention away from these relationships and focusing only on that one connection between teachers and the device itself. Sustainability is threatening to do the same with environmental issues in its reliance on the data and measurement devices *Agenda 21* is advocating for, as identified in element three.

It is the future possibilities that Greene speaks of, the sense of what might be, that brings me to a site of struggle between prevailing epistemologies grounded in accountability and both the parallels and paradox constructed regarding issues of responsibility in relation to sustainability and schools. This site of struggle runs the risk of reducing these *possibilities* into carefully constructed *probabilities* of predicated outcomes which can be measured and accounted for. These accounts do not equate to responsibility and I believe that if our attention were redirected back towards the latter, then the ecological

interconnections that bind us to each other and other life forms on Earth may assist in the restoration of a more humane world.

Even though the elements of the Earth could not feel the other's presence after strife ripped them a part, in this absence, they identified a medium of communication through their differences; differences that strife failed to consider; differences that sustainability discredits due to their position outside of authoritarian structures; differences that accountability seeks to destroy through the perpetuation of homogenized learning; differences that have defined the environmental movement for five decades. Difference is what separates Empedocles from other pre-Socratic writers. Caught between empiricism and philosophy, Empedocles wrote not with direct scientific quantifications or the "abstract precision" of a philosopher, but with a mythological desire so that others may view the world-story as he did; through his lens (Millerd-Smertenko, 1923). Empedocles, however, was not a romantic; rather, "imaginative vividness took hold of him" (Millerd-Smertenko, 1923, p. 21) when he wrote. Because of this difference, many philosophers such as Aristotle reduced his work to mere poetry (Millerd-Smertenko, 1923). This, however, made no difference to Empedocles for he wrote for the joy of writing. This joy is where curriculum is situated, not on the outside,

but in between love and strife, extending out from the elements of the Earth.

Empedocles' mythopoetic instinct is emulated in the writings of Mary Aswell Doll (2000), and her writing serves as the convergence between Empedocles' mythopoetics of the elements of the Earth, of the *Mythopoetics of Curriculum* (Title by Doll, 2000) and the *River Forever Flowing* (Title by He, 2003) between them. Doll draws on the metaphor of water as she offers a "reinterpretation of the Buddha's three types of people" (xviii). According to Doll, there are those "like letters carved in rock" (2000, xviii), where people hold on to feelings of anger for extended periods of time and allow that anger to evolve into hate. In Doll's reinterpretation, she terms these rock-dwellers "blockheaded;" stubborn in their approach to the meaning of living without an ability to articulate their reasoning since blind allegiance does not call for critical awareness. Blockheads include those individuals who blindly follow policy and procedure at the expense of other people.

There are also those people "like letters written in sand" (Doll, 2000, xix), where initial feelings of anger quickly subside as alternative ways of Being are presented to the individual. Doll calls these people "split-headed" in that they are able to feel the disconnect with the Earth and others. This feeling provokes an inner struggle as awareness of other ways of

living (re)marks their world and they seek to understand where they fit within these new structures. Doll (2000) asks us, "What is reality? What illusion; what is the true self? What the false? Such a person is playing a part in a script written by others" (pp. 82-83).

Doll contends these split-heads have not delved beneath the surface of the self in an effort to identify the true meaning behind that self. They hide, "mask themselves," as Doll would say. This is where the teacher from element three is located who betrays her profession and her love in her head-on collision with strife. This is where the gentleman from element three is positioned as he strikes out at Mother Earth in anger and frustration at being silenced from the environmental debate. Perhaps this is where I am situated, caught in a momentary crisis of meaning regarding sustainability dictated by authoritative figures and by interpretations I claim only for myself; between the social constructions within my environment, the policy and procedure of a standardized world and the people that it silences or shuts out altogether, and a desire to be heard via a living dialogue with myself and others.

But I long to be those people who Buddha describes as "like letters written in running water" (Doll, 2000, xix), where the retention of thought is avoided in an effort to refrain from being "stuck" in any one ideal. Doll calls these individuals

"fountainheads," where they are able to engage in what she terms "the greening of imagination to suggest an ecological relationship between human and other myriad life forms in the cosmos" (p. 203); where metaphor engulfs the language of living and language engulfs the contexts of our Being, simultaneously creating while being created by the environment in which we live.

Doll (2000) asks, "What would it be to be 'like' water or wind?" (p. 145). My first reaction to this question was one of freedom, especially the wind. While water is fluid and traverses the Earth's landscapes, there are boundaries associated with these arterial flows. Wind, however, is free to flow where it wishes; the boundaries seem limitless; neither is like the tree from my childhood, whose only choices were to grow "up" and "out." Questions of "what if..." mingle at the intersections of ecology and curriculum theory where, for me, the former is an eco-spiritual act of communion with the Earth and the latter is what Macdonald (1995) translates as a "prayerful act" (p. 181); a deliberate act of mediation into our thoughts. "It is *through theory* that we see, think, know" (Macdonald, 1995, p. 181); where the theorist lingers on "what if...?" for indefinite periods of time.

Macdonald (1995) continues: "As such it should not be whipsawed into 'accountability' by a set of 'mind forged

manacles'...curriculum theory is what speaks to us *through it* and what we do is informed by theory" (p. 181). This is reiterated in Pinar (2004) who asserts: "knowledge and intelligence as free exploration become wings by which we take flight, visit other worlds, returning to this one to call others, especially our children, to futures more life-affirmative than the world we inhabit now" (p. 31).

These wings, this taking flight, are reflective of the wind in Doll's writing, the "What if...?" that engages the imagination and opens up the world to other possibilities. To engage in "What if...?" and free exploration takes an act of faith on the part of the theorist; faith in a belief these elements of theory may eventually perpetuate the transcendence Doll speaks of beyond our own limitations. New knowledge, new thoughts and ideas possess this possibility as new information and thus new questions provide us with the wings to explore these new spaces. These statements illustrate what curriculum *is and could be*. What if education could be the same? What if education could propel a child's imagination into taking flight to wherever her imagination can take her? What if...?

But then Doll (2000) states: "The question makes no sense to Eurocentric ears. To a culture bred on demarcation, categorization, and method, the primacy of the eye is what takes effect" (p. 145). And Pinar (2004) concludes this thought:

When we sink, submerged in those roles conceived by others, we become aborted possibilities, unable to realize in everyday life, in our relations with others, the politics of our individual and civic identities, the educational dynamics of creation and birth (p. 31).

And so "What if...?" is doused by a reality of what is...

But it does not have to be. In the next section, I focus my attention on the school environment in relation to accountability and elaborate the connection between these environments and issues regarding sustainability. I follow Derrida's interpretation of responsibility, a response to the Other, in hopes that we may discover other ways of knowing and understanding our encounters with these sites of struggle regarding accountability and responsibility that impact both the schools and issues of sustainability. While responsibility can be viewed from an individual and a collective perspective, I focus my attention on the former in that the person "is precisely the place and subject of every responsibility" (Derrida, 1999, p. 26).

To provide a brief rendering of the context in which Derrida speaks of responsibility, I turn to the *The Gift of Death*. In this text, Derrida (1999) engages the writings of Jan Patočka to explore the concept of responsibility in relation to Christianity and Platonism and how this historical connection

has been both repressed and incorporated within Christian thought. He asserts "This *aporia of responsibility* would thus define the relation between Platonic and Christian paradigms throughout the history of morality and politics" (p. 26). Hongyu Wang (2005) defines the Greek interpretation of *aporia* as an indication of a "state of impasse, nonpassage, or logical contradiction that can never be permanently resolved, a state of constant dilemma with no general or final solution" (p. 45). To Wang, this nonpassage is not negative; rather, it is affirming in that our conscious engagement with the passages, "borders" as Wang calls them, "is the precondition for experiencing *aporia*, and thus is necessary for responsibility" (p. 45). And it is this contradiction, this *aporia*, that Derrida (1999) identifies in the "Christian consciousness of responsibility" (p. 26) which he argues is unable to reflect on what it has repressed, that being Platonic thinking, thus rendering these individuals unable to reflect on those aspects that Platonic thinking has incorporated into its own ideologies. It is this contradiction between accountability and responsibility as well as the *aporia* within responsibility itself that I draw from Derrida and dwell on for the remainder of this element. In order to make visible these contradictions, I will focus my attention on the school environment and then build the connections to sustainability.

Accountability versus Responsibility-

Recall in element three how the teacher and the hypothetical man became docile bodies under the panopticon of accountability structured out of educational policy for the teacher and out of sustainability for the hypothetical man. This docile effect occurs through the actual accountability device.

Pinar (2004) tells us:

'Accountability' is not about 'learning,' but about controlling what we teach to our children. It is about controlling the curriculum- which is, finally, control of the mind- the public schools are severed from both the social and the subjective (p. 27).

This severing of the individual from the social and subjective (Pinar, 2004) is secure in the message Corcoran relayed in his presentation in that our positions outside of particular policy-making institutions render us speechless to the policies that affect the planet.

Jardine (1998) calls this world of disconnect "Descartes's nightmare" (p. 10); not only did Descartes succeed in severing the mind from the body in his validation of the scientific method and the questions it provoked, but in that severing, Descartes helped create the conditions through which the subject would be defined. "In order to understand life as it is actually lived, we must disconnect ourselves from it and then reconnect

with it only in those ways that render it our predictable and manageable object" (Jardine, 1998, p. 9). With accountability, the reconnections made between teacher and student, between individual and the Earth, become the object that accountability seeks to manage through the devices it solicits: the teacher, whose relationship now hinges on the ability of the student to master the standards so that she may find success; the individual, who must now purchase "green" products so the Earth can be sustained while the economy is securely maintained in his efforts.

Accountability does not invoke a conversation regarding our situated-ness *within* ecology. It perpetuates a monologue written by a select few *in regards to* ecology *on behalf of* all humanity. Corcoran can be held accountable to the institutions he assigned power to in his perpetuation of their power; the rest of us can go home with the assurance these institutions are being held accountable to the scientific data being solicited by U.N. organizations through their global implementation of *Agenda 21*.

I believe Obama would disagree that accountability is about control; rather, he would suggest that accountability is the only way to ensure governmental and individual responsibility. On his second day in office, Obama signed an executive order calling for higher ethical standards from his senior Whitehouse staff. Prior to signing this executive order, he stated to

viewers, "The way to hold government responsible is to hold it accountable" (April 23, 2009). According to this same speech, accountability is ensured through the transparency of governmental action (2009). I agree with Obama that accountability promotes responsibility; but this responsibility is not to the people he contends accountability includes in the governmental process; the responsibility is to the actual accounting device he puts in place. As a result, it actually excludes the people he intended to include in the first place while simultaneously constructing limitations on how we may respond to their changing needs.

Before I engage in arguing my point, let me just say that I view accountability on the side of strife in the movements between the elements, with responsibility situated on the side of love. This is because responsibility, as separate and apart from accountability, not only actively involves the individual in the decision-making process but also acknowledges differences in the social contexts for which differing individuals enter into negotiations with responsibility.

Certainly individual interpretations of responsibility can lead to strife; indeed, many acts of responsibility lead to the social and environmental injustices on display in society as well as hatred towards others different from the individual acting responsible only to himself. But I do not view hatred as

the opposite of love because they both elicit emotional and passionate responses, albeit in competing directions. I believe one has to love or hate, one has to *feel something* enough to act upon it.

Rather, what I view as opposite of love is indifference. Indifference does not engage any sort of emotional action/reaction from an individual. The indifferent individual is detached from the situation as a result of his own lack of emotion. Greene argues indifference is the opposite of morality in its lack of care, concern and "wide-awakeness" (1978, p. 43). This indifference creates an individual who drifts from one idea to another, one experience after another, never really understanding the situation at hand (1978); "they are unlikely to identify situations as moral ones or to set themselves to assessing their demands" (Greene, 1978, p. 43). This lack of morality is ecologically connected to the lack of emotional response I discuss regarding love. Not to suggest that indifference does not involve its own set of responsibilities (which is a research project unto itself). But as far as movement between the elements, I simply want to state that indifference is what promotes stagnation of movement, not hatred, because hatred will continue to perpetuate movement along the lines of strife through its own actions.

The subjectivity involved regarding issues of responsibility is precisely why I believe education ignores the term and has rallied behind accountability. Responsibility does not lend itself to the standards and measurements that accountability promotes, rendering it more difficult to control. For example, during my last year of teaching at a rural middle school in a middle Georgia community, the school was assigned a new principal. This principal was fond of calling grade-level meetings to discuss student progress in relation to the standards and objectives prescribed by the state. In one particular meeting, the principal instructed us, the sixth grade teachers, not to worry about those students who performed so low on the test last year. "We need to focus on those students who barely failed because that is what matters when making adequate yearly progress *this year*" (Hickman, 2006, personal communication).

From one perspective, one could argue that my principal was acting responsible to the school in which he was charged. By excluding those populations of students who were perceived as hopeless learners, he could focus his attention, teacher's attention, and the school's limited resources on those students who presented the possibility of passing the next battery of state-mandated tests. What happens in this perspective is that he becomes responsible to the actual accounting device and *not*

the students the device claims to protect. Because of this, the principal's actions proceed in such a way that others may interpret as *irresponsible*. And we find ourselves living in "Descartes's nightmare" (Jardine, 1998, p. 10) where the mind of the school administration is viewed as separate and apart from the body of the school where teachers and students function as the heart and soul of the institution.

From my perspective and from those of other teachers I worked with that year, his words were not an act of responsibility, but an act of sheer violence against children in the school in the oppressiveness of his choice to exclude these children *from their own education*. As a result, many teachers began to implement a "closed-door policy," where we would shake our head in agreement to the comments he made in meetings and then close our classroom door and continue to teach all students assigned to our care which, to some, could be seen as a lack of responsibility on our part for failing to challenge his words. Like the teacher in element three, there is a level of fear attached to these challenges which effectively keep many teachers silent. Because of the conflicts arising out of issues of responsibility, I left the school after that year, but many teachers with whom I have remained in contact speak of the challenges in maintaining the "closed-door policy" resulting from that same fear which has been coupled with a heightened

state of security on the school, not on student behavior, but on teacher behavior in regards to the demands set forth by administrative procedures in relation to *No Child Left Behind*.

I recognize that fear is not an excuse for irresponsible behavior, but this fear that has been established in school environments through accountability is being used as a rationalization for the betrayal of students who do not meet some concrete level of proficiency. I am also not advocating for teachers to just disregard the laws that govern their actions; rather, I am demonstrating the complexity of responsibility and the struggle teachers with whom I am acquainted have experienced while attempting to act responsibly *towards children*. At least these teachers are attempting to maintain the connections between them and their students, Corcoran's exclusion of individuals outside of government and administrative agencies in his presentation also potentially produced the idea that since these individuals are not a part of the debate, then they are exempt from acting responsible to the environment for which they are a part. This exclusion also runs the risk of an individual in attendance potentially choosing not to join collectively with other members of the community to advocate against local environmental issues because, having been excluded from the debate, she feels her actions are not valid and she has no voice, so why even try. Yet, it is this activism and both

individual and collective responses that promote the transformations needed to make lasting changes in one's community.

Another example of how accountability constructs a relationship between teachers and accounting devices can be found in repeated reports of testing improprieties in the state of Georgia. In 2010, Georgia was awarded a grant offered by the *Race to the Top* initiative promoted by Arne Duncan and the U.S. Department of Education. This grant promotes a direct correlation between a teacher's salary and student performance. In April, 2010, four high schools in my hometown fired their entire faculty of teachers and the administrators of these schools with the understanding teachers could reapply for their jobs, thus ensuring selected officials selective power over who returns to the school environment. As word spread within the community, students began to hear about the direct relationship between teacher salaries and student performances on tests. One friend in particular shared with me a comment from a student who asked her "So if I don't pass the test, that affects your pay, right?" (Faulkner, 2010, personal communication).

My friend cannot attest to the motives behind this statement, but it alludes to the fact that under the accountability demands of *Race to the Top*, which I believe only exacerbates those demands set forth by *No Child Left Behind*

through its ability to link a teacher's pay directly to student results on a state-mandated test, the only relationship deemed important in schools is that built between the teacher and the actual accounting device.

Already there were numerous accounts of testing irregularities within the state, with the Atlanta Journal-Constitution reporting 191 schools statewide as being under investigation for cheating (February 11, 2010). In this article, a former teacher is reported as saying, "while cheating isn't justifiable, the *No Child Left Behind* act may have created an environment where schools think they must cheat to survive" (Williams, in Atlanta Journal-Constitution, February 11, 2010). And this irresponsible act is reported as external to accountability instead of *in response* to accountability, as if the latter had no role in how those individuals chose to respond. These unjustifiable acts may be exacerbated if the state is successful in its bid to link teacher salaries with test scores via state legislation.

Students in these environments are reduced, no longer as products on a factory assembly line which has been historically depicted, but now as *by-products* to the production of test results manufactured by the teacher and school. In speaking with a teacher while researching accountability, Taubman (2009) relays the words this teacher spoke, "sometimes I think the data

and reports are replacing the kid. We don't talk about the students as much as their test profiles" (p. 20). These students are becoming the means through which high test scores can be achieved to reach a prescribed level of school proficiency as deemed by these educational policies. And it also removes individual levels of responsibility on the part of the child, who can now effectively blame the teacher for her failures, and reduces the level of responsibility of the teacher to only that which is prescribed by the actual device and not the child itself.

If a certain percentage of students are needed to ensure a label of teacher effectiveness, then, like my former principal, the teacher can choose which students will receive her instructional time and which will be sacrificed in the name of this effectiveness as defined by the accountability device. According to Nel Noddings (2007), "A sense of responsibility in teaching pushes us constantly to think about and promote the best interests of our students. In contrast, the demand for accountability often includes mere compliance" (p. 206). Responsibility includes consciousness to the relationships built between teachers and students that nurture differences rather than produce a homogenized, standard product (Noddings, 2007) necessary to produce homogenized, standard results on a single

testing device, thus making teachers accountable to that single device and not responsible for these differences.

What I fear is occurring in issues regarding sustainability is that the Earth, like the child in school, remains reduced as a by-product of human-centered environmental actions, abuses, and debates. The conversation becomes one dictated by the economy (accountability) while marginalizing ecology (responsibility). Sustainability's desire to extract minerals and resources from the Earth in moderation does not make these extractions any less violent than the current exploitation on display today. Rape of the Earth is still rape no matter the speed or efficiency of the assault; violence is still violence no matter the weapon of choice we wield. And yet, those in policy-making positions seem to have reached a consensus regarding accountability in schools and avenues society should take in order to reach some specified level of sustainability regarding the environment.

This consensus is reiterated in *Agenda 21* which calls for data and measurement devices to ensure nation/states and transnational corporations' compliance to accountability. Certainly there are corporations and small businesses which act in an environmental and ecologically responsible manner. But some that do not (BP and Shell Oil come to mind) engage in acts of greenwashing to portray an image of environmental

responsibility to the public when their actions "behind closed doors" are anything but responsible. This was demonstrated in element two in the examples of BP and Shell Oil's sustainability statements posted on their websites. Greenwashing, then, becomes its own act of irresponsibility to the Earth which poses a danger to all life-forms in that their actions of exploitations will have ramifications for all the Earth's inhabitants. Just as the BP oil spill in the Gulf of Mexico affected the life and livelihoods of those humans living in the environment with the ramifications to marine life still being determined. And the parallels that exist between sustainability and schools through accountability result in a paradox in regards to responsibility. This is evidenced in how the actions behind closed doors in schools, where the teachers I am acquainted with hide their actions of being responsible to children, whereas the closed door in corporations such as BP and Shell Oil potentially hide the actions of irresponsibility and indifference to the Earth and our environment.

Lyotard (1984/1979), however, suggests that consensus (such as the one reached between those who advocate for accountability or those who advocate for sustainable development or those who advocate that sustainability is a governmental and administrative issue) is inadequate in that "it is a component of the system, which manipulates it in order to maintain

[sustain] and improve its performance. It is the object of administrative procedures...to be used toward[s] achieving the real goal, which is what legitimates the system-power" (p. 60-61); thus he argues that consensus legitimates itself through its own falsehoods. Reasoning becomes rationalization; rationalization is thus accounted for through the devices erected to obtain evidence in support of the reasoning invoked by those deemed as authorities.

What appears to be absent from the accountability and responsibility relationship is the question of whether the degree of responsibility in relation to accountability is itself *ethical*. My own thought processes stem from Freire's contention that questions of ecology are questions of ethics. He tells us:

To the extent that we become capable of transforming the world, of naming our own surroundings, of apprehending, of making sense of things, of deciding, of choosing, of valuing, and finally, of *ethicizing* the world, our mobility within it and through history necessarily comes to involve *dreams* toward whose realization we struggle. Thus, it follows that our presence in the world, which implies choice and decision, is not a neutral presence (2004, p. 7).

These dreams are reflected in the imaginative call from Doll who asks us, "What would it be to be like..." (2000, p. 145), from

the contemplative call of Macdonald who suggests curriculum theory to be a "prayerful act" (1995, p. 181), and from the call towards our own possibilities from Pinar as he instructs, "knowledge and intelligence as free exploration become wings by which we take flight, visit other worlds" (2004, p. 31).

These dreams, imaginations, contemplations, and wings to fly become the avenue in which transformations take place. Freire suggests no transformation can take place "without a certain dream or vision for it" (2004, p. 7). As we set our course through these dreams, we become responsible for ourselves "as transformer beings" (Freire, 2004, p. 8). And this interpretation of responsibility *cannot be reduced* to any measurement or accountability device. Responsibility in relation to ethics, and thus opposed to the relationship being created with accountability, transcends any device intent on measuring its effectiveness. Responsibility in relation to ethics is a responsibility that propels love into movement and gains momentum over and against strife.

Jardine (2000) asks us, "how can we help ourselves and our children remember that this world of ours—for example, the living world of language...is deeply and pleasurably *interpretable*?" (p. 5). These multifarious interpretations are why I have demonstrated that sustainability cannot *only* be an administrative and governmental issue. Because of the myriad

interpretations represented in this world, one cannot define for all inhabitants what is worthy of sustaining. I, personally, seek to sustain a planet in which Mother Earth can continue to inspire me with her writings. I seek to sustain the interconnections I have made with family, close friends and acquaintances that influence me in positive ways. These influences have oftentimes possessed the power to transform the way I choose to see the world.

I seek to sustain an educational system that offers a curriculum for the living and not for the dead via in-depth exploration of the myriad ways learning can affect our lives in profound ways, thus providing the possibility of transforming how we choose to see the world. I seek to sustain the dialogue that ensues as one reads a thoughtful book or writes a compelling paper or dreams of being *anything* other than what others deem us to be. I reject any and all notions that sustainability is only a policy issue or an administrative issue or anything else that excludes the individual from a creation of its meaning. But this explanation only works for me, in the context of my life. And it is not concrete. The meaning of sustainability has been like a "river forever flowing" (Title by He, 2003) in my own thoughts as it mingled with the "landscapes of learning" (Title by Greene, 1978) I explored.

As a result, in my own writing, at different times, sustainability has produced different meanings from the one I now write. I frequently found sustainability to be a movement in accountability and strife. Because of this, I choose to engage the issue of ecology and "ecological consciousness" (Morris, 2002) when speaking in regards to the environment, and this ecological consciousness includes issues of sustainability. In this way, I can remain conscious of those linguistic patterns that marginalize ecology at the expense of economy without ignoring the connections between the two as well as those issues relating to sustainable development such as overpopulation and the patriarchal perspective it maintains in its process. As Judith Plant (1997) suggests:

The most essential feature of ecofeminist thought is that all oppressions...have their roots in common. The basis of power-over, of domination of one over the other, comes from a philosophical belief that has rationalized exploitation on such a massive scale that we now not only have extinguished other species but have also placed our own species on a trajectory toward self-destruction (p. 121). This not only attests to the importance of ecofeminine thought but also is one of the few interpretations of the current ecological crisis that does not equate it with saving the planet but about saving human existence on the planet. Sustainability

perpetuates the latter and fails to challenge the "power-over" issues Plant suggests ecofeminine issues can address and have addressed in relation to the reproductive technologies that Mies and Shiva questioned in their work. I am not suggesting we turn our backs on sustainability, but as long as those in positions of power attempt to align sustainability with accountability and exclude individuals from the debate, they are leaving us no room to respond to the environment in ways we define ecological meaning for ourselves. Our first action should be, not a "re" claiming of the term, for it has always worked from the top down, but an identification of how sustainability works in favor of the environment in an atmosphere inclusive of the diversity found in life. This pathway towards liberation and praxis is already being opened and explored in broader terms of ecology such as ecopedagogy, ecopostmodernism, ecofeminism, ecospirituality, and ecoliteracy, and ecojustice, to name a few.

Ernest Callenbach (2005) offers an interesting explanation of what curriculum means to ecoliteracy; "curriculum...means the totality of a student's experiences, a mix of content and context" (p. 41). This mixture transcends the ability to be accounted for but invokes an ethical responsibility on the part of the teacher to learn and to understand the context of a child's life in relation to the content provided in class. Understanding these contextual relations within students

appreciates and responds to the differences children display in race, class, gender and sexuality, as well as cognition and levels of interests.

I think, too, that Riley-Taylor's (2002) depiction of eco-spirituality attests to the deep connection we have with Mother Earth. As an ethical perspective, she suggests its possibilities lay in an "ecospiritual *praxis* entailing a continuous reflection on who we are, and on who we wish to become" (p. 99). This reflection as becoming connotes an element of criticality evidenced in Kahn's interpretation of ecopedagogy and Freire's call for ecology as a question of ethics. Where the oppression resides is in the exclusion of those deemed as other when compared to authoritative figures who wish to remove us from a debate we are naturally a part of. Because of this natural connection and in light of the multiple ways sustainability can be read, I conclude the term to be what Derrida would suggest is an impossible possibility (1995).

"Once there was a tree..."-

"...and she loved a little boy" (Silverstein, 1964, pp. 1-3). Silverstein's classic children's book *The Giving Tree* tells the story of a young boy who grows up with a tree. I had forgotten this story as I had not read it in years. When my daughters were very young, I would read to them nightly. The pictures would be explored and the shapes and sounds of words

would be discussed if that was their desire. Sometimes they just wanted to listen, so I would read the story uninterrupted until I recognized they had drifted off to sleep. This book was a favorite because I would always embellish the story with tales of my own giving tree.

"Tell me more, mama!"

I can hear their tiny little voices in my head at this moment as if it were yesterday. Time passes too quickly, I think. My children are slightly older now; able to read on their own. So they do not need my assistance any longer. But that book and the time we spend talking to nature in the backyard are my way of instilling in my children a great respect and admiration for the Earth.

"Your story is about The Giving Tree," my youngest daughter proclaimed as she listened to me talk about my prologue.

I had forgotten. And I think my forgetfulness attests to the fact that in a world driven by the economic narrative and informed by the scientific narrative we, too, easily forget the multiple narratives of viewing the world. We forget that one single question such as "What are we sustaining?" can be interpreted in multiplicity. Nietzsche (1967), however, suggests:

Forgetting is no mere *vis inertiae* as the superficial imagine; it is rather an active and in the sense positive

faculty of repression, that is responsible for the fact that what we experience and absorb enters our consciousness as little while we are digesting it (p. 57).

Forgetting as an act of repression can be "accounted" for in relation to my forgetting of *The Giving Tree*; for there are multiple perspectives one may assume in the reading of this story.

Many times while reading to my children, *The Giving Tree* became a lesson of love and generosity on the part of the tree; that happiness can be found in our selfless love of others. In the story, the tree loves the boy and this gift of love and generosity is reciprocated by the boy in the time he spends with the tree; he sleeps under her shade, plays in her leaves, eats her apples, and climbs her branches. The tree's love is unwavering throughout the story as she gives the boy her apples to sell when he gets older, her branches to build a house, her trunk to build a boat so that he may sail to parts unknown. These selfless gifts given by the tree eventually result in the tree being reduced to a mere stump. But even in this condition, the tree gives her stump freely to the boy who, by this time, has become an elderly man. In the conclusion, the boy sits upon the stump, "and the tree was happy" (Silverstein, 1964, p. 51), because, with what little she had left, she was still able to give, and giving was her happiness.

As my daughter reminded me of the story, we retrieved the book from the shelf, curled up in the middle of the bed reminiscent of times gone by, and read. This time, my youngest daughter read the story to me. As I listened, however, I began to hear the story from the boy's perspective, and his actions became emblematic of the greed and callous disregard we humans display towards the tree, the Earth; for while the tree was giving and giving the boy was taking and taking.

No longer satisfied with the love the tree gave him, the boy consumed her gift of apples to sell to obtain his new love of money and material possessions. He stripped her of her branches so that he may build a house without even a glance backwards at her newly-exposed condition. He robbed her of her trunk, her body, so that he may sail to parts unknown without even acknowledging the sacrifice the tree experienced in the giving of her body to the boy. And when she had nothing left save for her trunk, her spirit, she gave it freely to the boy who sat upon that trunk, sat upon her spirit, devouring her gift without even the slightest acknowledgement to her condition; and yet, "the tree was happy", (Silverstein, 1964, p. 51).

From an ecofeminine perspective, the boy's power over the tree is reflective of male society's power over their female counterparts and thus power over nature and the Earth. This story instills in children the privileging of male domination

through the marginalization of both women and nature, not only through Silverstein's assignment of the female pronoun to the tree, but also the maintaining of the image of female as a nurturing being stable in her planted position while the boy is privileged to come and go at his leisure. My initial interpretation when reading to my younger children did not challenge this aspect of the story and an opportunity to instill opposition to this narrative slipped through my fingers. This revisiting of *The Giving Tree* provided me the space to correct my initial oversight.

But what I call an oversight is the polite way of phrasing my ignorance to the hegemonic control within the patriarchal society in which I live and thus passed down to my daughters; ignorance of how the history behind our experiences, which Nietzsche (1967) contends are guided "with the aid of the morality of mores and the social straightjacket" (p. 59), perpetuates our own engagement (or lack of) with these experiences with little consciousness to societal conditions that influence the constructions of that experience.

As far as repression, the boy's perspective initially went unnoticed because to acknowledge the selfishness and greed he exhibited in his behavior forces one to acknowledge the selfishness and greed exhibited in *human* behavior towards the Earth. While issues regarding ecology bring to consciousness the

exploitative nature demonstrated by humans and perpetuated by corporate actions, sustainability is limiting in its maintaining of an economic narrative that secures the actions of abuse towards the Earth through its own argument; that argument being one of moderate extraction so that natural resources available in the present will also be available in the future. While individuals such as Andres Edwards and organizations such as the U.N. through its documental delivery of *Agenda 21* base their argument on the relationship between economy, ecology and equity, ecology itself continues to be marginalized as the economy becomes the focus through sustainable development which also fails to promote the equity included in their argument. As a result, sustainability becomes a gift of impossible possibilities to the "unforeseeable future-to-come" (Derrida and Roudinesco, as quoted in Diprose, 2006, p. 437).

To Derrida, a gift is only a gift when no expectations are associated in its offering; it is a gift given in secrecy. In this secrecy, generosity and goodness are also offered; "what is given...is not some thing, but goodness itself, a giving goodness" (Derrida, 1995, p. 41). When secrecy is not employed in the exchange, the gift itself becomes its own economy where "a gift that could be recognized...a gift destined for recognition, would immediately annul itself" (1995, p. 31). "Thank-you's" and other statements of gratitude become the

economic exchange that renders the gift a product which must be negotiated between the giver and the receiver. Yet, because of the presence associated with the giver of the present, the gift itself becomes an impossible possibility in its inability to maintain its secrecy.

In respect to secrecy, sustainability's desire to moderate exploitations of the Earth's resources can be seen as a gift of goodness in its desire to secure these resources for future generations of humans without any expectations attached to this gift. The secret lies in its own history and the incorporation of that history in the present and thus, the future; a history that is being amended through revisions such as Edwards' that depict sustainability as a bottom-up grassroots movement when, in fact, it has worked in the opposite direction. And this historical revision, as demonstrated in element two, has been incorporated in his revolution. But sustainability also becomes an impossible gift in that our sacrifices today will not ensure the survival of these resources for future generations. Curtailing the speed at which we extract these resources does not alter the fact that eventually these resources will be exhausted. After all, and we know this already, but there is only a finite amount of non-renewables available and once they are gone, they are gone. Moderation does not change that,

although we seem determined to suggest that it does. Moderation only attempts to delay the inevitable.

In *The Giving Tree*, the gift of goodness is not given in secrecy. The boy is fully aware of the tree's offering of her Being. Yet the boy never acknowledges what his desires have cost the tree: her apples, her limbs, her trunk. There is never an exchange of gratitude on behalf of the boy. But still, the tree is happy for she gave out of goodness and generosity, not for want of anything on his part. Therefore, I believe the tree still embodies the generosity Derrida associates with the gift. She had no pre-determined conclusions as to what her gift to the boy would bring her. She only knew that giving made her happy.

This act of goodness on the part of sustainability becomes an act of responsibility. To Derrida (1995), "the activating of responsibility (decision, act, *praxis*) will always have to extend behind and beyond any theoretical or thematic determination" (p. 27). In other words, we cannot desire to know in advance how our act of responsibility will be received in relation to the other; whether that other is another person or another generation, an "unforeseeable future-to-come." But Derrida also contends making that which is secret transparent (and that is certainly a popular word these days) also makes transparent the link existing between secrecy and responsibility (1995). He suggests from this moment of exposure of the secret,

"it takes very little, a single step, to envisage an inevitable passage from the *democratic*...to the *totalitarian*" (p. 35).

This, I think, demonstrates the dichotomy between accountability and responsibility in that accountability desires to pre-determine the future through its actions, thus limiting the democratic process in schools and in society to one of totalitarian control through its devices.

If accountability can control the conversations in classrooms and the relationship built between teachers and students (and I am witness to that act in my own aforementioned experiences), then it can determine which students will be successful, thus making the teacher and the school successful, and which students can be sacrificed in order to reach that level of success as defined by the device. Accountability then closes off the "future-to-come" in its desire to manipulate the environment into a predicated state of existence contingent on the outcomes produced through its own demands. Accountability, then, becomes an irresponsible act. Derrida tells us:

Saying that a responsible decision must be made on the basis of knowledge seems to define the condition of possibility of responsibility (one cannot make a responsible decision without science or conscience, without knowing what one is doing, for what reasons, in view of what, and under what conditions (1995, p. 25-26).

This knowledge is what accountability seekers determine to be gauged by varying degrees of proficiency: a student/teacher either meets, exceeds, or falls below a pre-determined level of proficiency. And teachers must now work, not for children, but for that prescribed level. The device becomes the *condition* for which proficiency is determined. Derrida demonstrates how this condition of responsibility occurs "at the same time as it defines the condition of impossibility of this same responsibility" (1995, p. 26), for one cannot be responsible to the accounting device while simultaneously acting responsible to children. Something in the exchange has to be sacrificed, which leads Derrida to conclude: "if decision-making is relegated to a knowledge that it is content to follow or develop, then it is no more a responsible decision; it is the technical deployment of a cognitive apparatus" (1995, p. 26).

So accountability as a *condition* of responsibility becomes an irresponsible act. And the incorporation of this irresponsibility into school policies perpetuates its own irresponsibility through conscious acts of accountability and the "technical deployment" of the accountability device. Sustainability, with its attention to standards, measurements and scientific data, risks its own gift of available resources to future generations by reducing responsibility to those accounting devices, thus closing off the very future it is

attempting to give through its own act of responsibility. This, of course, does not mean we should not *try* to secure these resources for the future; which is why Derrida suggests responsibility is also an impossible possibility because when we choose to be responsible to something or someone, we give up acting responsible to all others who are neglected in our act of responsibility to that particular person or thing (1995).

But a responsible act would be an act that does not marginalize our intentions regarding sustainability through its privileging of the devices of standards and measurements and the collection of scientific data; for that would be an act of irresponsibility which would render the Earth an object to be accounted for; an account that perpetuates modern images of Earth as a machine. Responsibility "worthy of its name" (Derrida, in Diprose, 2006, p. 442) must transcend the accountability machine where it becomes a gift of goodness and generosity without knowing the outcomes; without attempting to quantify any objectives towards that gift.

I believe responsibility would include the giving of our selfishness over to its death which, by proximity to ignorance, will also include the death of our ignorance so that the "future-to-come," the future of others, stands a fighting chance of becoming a "future-that-is." This ignorance involves the understanding that accountability does not equate to

responsibility if what you are responding to is the human condition or to the Earth or to ecology or even to the tree in Silverstein's story. She gave her entire Being to another for the joy of giving and out of goodness and generosity. Can we humans act the same in regards to future generations?

If we can act the same, then the conversation regarding sustainability will not exclude individuals outside of authority positions but embrace them and their differences. If we can act the same, then teachers will halt the betrayal of children and betray the betrayal of the accounting device that is working to sever the ties between them and their students, between the hearts and souls of schools. If we cannot act the same, then our attempts at sustainability are futile attempts when the children in school today assume their role in society tomorrow, for they will bring their own dis-connections and their own histories with them; they will be unable to *think*, creatively and critically, about how to sustain conditions that enhance their own ecological connections they create within their lifetime.

The ecological interconnections that bind this generation to those of the past and of the future are reflected in Silverstein's story; not in his words, but in the existence of the tree itself; the embodiment of the elements of the Earth; for the tree does not grow in isolation. Its presence is sustained by the persistent influence of the sun and the air and

the water as its own roots grow deeper into the Earth. We do not always see these elements working together to promote the life of a tree but they must be there, or how else would the tree remain alive? I think sometimes we are conditioned to forget that as living beings, we are the nature that society attempts to fragment us from; this disconnect resulting in fragmenting one aspect of ourselves from an Other. And we substitute this emptiness with consumptive patterns because we have been trained to believe that is what fulfills us.

And I do not believe the Earth is particularly happy with how humans are exploiting her. I rely on Michael Rice's fictional conversation with Mother Nature to conclude. Mother Nature says to the human:

You think that you evolved from the same tree as the ape to Homo habilis to Homo erectus to Homo sapiens then just stopped evolving? You don't think that Homo sapiens can be improved upon? Look around at the destruction Homo sapiens have done to the planet, to the other life forms on the planet, and to each other and tell me that you are at the apex of development, that you are so evolved that you can just maintain the status quo" (2001, p. 43).

Rice argues that humanity cannot actually kill the planet; that the planet itself is regenerating. What will happen is that humanity will destroy itself from within its own societal and

economic structure currently being sustained. And once the planet rids herself of us, she will begin to repair herself and heal the wounds we have inflicted on her body. And I think, also, that if we could ask Mother Earth what she would sustain, the answer would probably not be humans. If she could erase us from her pages right now, I imagine her final words would read much like Silverstein's... "And the Earth was happy."

This possibility returns us to the question Zizek posited back in element two; that question being whether the financial meltdown of 2008 will be the tragedy needed to awaken us from an ideological dream or will allow us to continue dreaming (2009). His answer to that question was, of course, contextual: "It all depends on how it comes to be symbolized, on what ideological interpretation or story imposes itself and determines the general perception of the crisis" (2009, p. 17). And currently, with the framing of sustainability aligning itself with accountability, I fear that we are being poised to roll over in our sleep and continue that dream all the while congratulating ourselves on our efforts to sustain the planet through our purchases of "green" materials and accounting for all that we engage.

Through these accountability devices, we are asleep to the fact that our engagement is not one of responsibility to life, but a maintainability of the limitations that hinders the

"future-to-come" from identifying those aspects of society they may determine as worthy of sustaining. If this is a dream, I hope that, as educators and integral parts of the web of life, we wake up to the possibilities, the "what if's" and the prayerful acts Macdonald associates with theory so that we may board the wings to fly that Pinar so graciously offers into that "future-to-come." I hope that we may extend these offers to our children and our students so they may construct their own wings in which to fly through the educational process. In so doing, I believe we would be acting responsible; an impossible act, Derrida would say; yet also, extremely possible.

Epilogue-

Sustainability as a Question of Pedagogy-

Patti Lather (1991) states, "While we cannot but be engulfed by the categories of our times, self-reflexivity teaches that our discourse is the meaning of our longing" (p. 119). In other words, discourse becomes the avenue through which the complex and contradictory contingencies of meaning may be understood; if only for a moment. These complexities and contradictions in discourse can act as a mimesis to Empedocles' claim that love and strife becomes the avenue through which the movement of elements into the conversation may occur.

I think sometimes, in our quest to account for every aspect of life on this Earth, we rely too heavily on categories such as sustainability and/or sustainable development to speak for us so that we may not have to think about such issues. In so doing, we perpetuate other interpretations of these words instead of our own, as was demonstrated with the protesters of BP's oil spill in the Gulf of Mexico. And as these categories work their way into normal, day-to-day conversation, other potentially dangerous meanings become less contested and accepted as "just the way the world works." This, in turn, leads to other dangerous potentialities when, as Friedman suggested, the word is redefined through its erasure out of the language (2009).

It has never been my intention to offer one single meaning of the term, if I could even accomplish such a task, for in my own work the word has meant different ideas at different times, in different contexts. The strife in my writing resulted from being raised in a modernistic environment where all meaning is explicitly defined or our choices are carefully controlled (usually a choice between a, b, c, or d) and my failure to identify that one complete meaning. Of all the interpretations I have read, however limited they may be at this time, the one that most resembles my current thinking is Orr's explanation of sustainability as "something other." And this "something other" means different things to different people at different times in one's life. This "something other" refers not only to an opening of how individuals may define this other, but also includes diverse populations who define what is worthy of sustaining in both individual and collective terms. The collective movement has been evidenced in the changes environmental activists such as Rachel Carson and Vandana Shiva have perpetuated in their actions to promote a better, more socially-just world for all inhabitants.

To allow sustainability to be "something other" than an administrative or governmental issue also means to open the term up to contestation; in contest of the ways this word sustains the economic, patriarchal, scientific narratives that dominate

current conversation; in contest of the hegemonic forces operating to erase this term from our language systems. I believe the worst action we can engage as a human race is to allow this erasure of the term to occur because it closes off the free play of words that construct those connections outside of already existing structures: the personal, the spiritual, the ecological, those other interpretations that are not necessarily more human *in nature*, but are more humane *with nature*.

I think, too, the categories Lather speaks of enables us to account for those individuals that are *unnatural*, not proficient, outside the norm, different. In education, the ability to account is driven by a desire to sustain the accounting devices, for that is the dwelling place, not only of profit, but in the management of the panopticon and the greening of the docile body. The notion of romanticizing nature also comes to mind. In the prologue, I denounced this notion within my own writings so as to offer an explanation of a literal conversation I have with trees, with nature. I now understand, although somewhat delayed and perhaps only fleeting, this category of romanticizing is possibly yet another way of accounting for difference; a difference which not only defines my "something other," but also defines my "I." This romanticizing may also be a way of dealing with the violence we are inflicting on the Earth, thus inflicting on our selves.

While I did not explore sustainability in terms of identity, I believe this to be a worthy endeavor for the future. By nature of this endeavor, we also engage in an understanding of the ecological interconnections that help create that curriculum; that "lived experience."

I offer no conclusions to this inquiry because the "I" in who I am is always evolving; nor is the ecological debate ever one to be concluded. This debate changes daily, hourly, by the minute, rendering it nearly impossible to stay abreast of the changes. What I have attempted to accomplish is an engagement of multiple readings of sustainability in an effort to open up the dialogue outside of those offered by administrations and governmental agencies where the majority of people live. An ecopedagogical perspective has afforded me the opportunity to engage in Empedocles' love and strife, of Jardine's pedagogy of "love, care, and generosity" (2000, p. 22) and Kahn's desire of sustained opposition to dominant forms of knowledge as a fluid entry into understanding the multiplicity of meaning the term sustainability houses. Ecofeminism has enhanced that fluidity through its ability to transcend the categories placed on the Earth itself as an extension of the oppression of the feminine pronoun exhibited in society and secure within the sustainability debate. Eco-postmodernism has provided an

unstable ground in which to challenge the notion that sustainability is only an authoritative issue.

Both Empedocles' and Jardine's love has assisted in dealing with the strife and violence these meanings at times conveyed: economy, accountability, globalization, patriarchy, homogenization, control. As a result, I envision a "future-to-come" where the questions of whose knowledge is of most worth, at what cost and for whose benefit will be expounded upon to include what we are sustaining. But to add this question always already includes the addressing (or masking) of what we are *maintaining* in the process. Is it some structure or ideology we are blind to which remains secure by our own questions? I do not know; but a pedagogy grounded in inquiry and opposition (Earth), set within movement (Air), premised on shedding light onto that which is obscure (Fire/Sun), and flowing fluidly through dialogue (Water), may help us towards understanding a curriculum we call sustainability.

In an effort to leave the field open for further exploration, I leave you with a very brief rendering of how sustainability may be read as popular culture. This reading summarizes my thoughts on the matter while not closing them off to further scrutiny. This is because, as John Fiske (1989) asserts, "popular culture is always in process" (p. 3). It is contingent on the "social and cultural relationships" (p. 3)

negotiated between a text in myriad formations such as fiction, television, images, to name a few, and the reader of that text. This negotiation connotes a struggle for meaning between what is present in popular culture and also what absent, such as economic, social and/or hegemonic powers embedded within the text (Fiske, 1989). As a result, Fiske (1989) determines "popular texts are structured in the tension between forces of closure (or domination) and openness (or popularity)" (p. 5). This tension has also been identified as the dwelling place of people who reside outside of authoritative organizations but who wish to open up the issues of sustainability to multiple readings.

As Weaver and Daspit (2000) argue, "When we accept popular culture as a form of critical pedagogy, we begin to focus on the ways in which these texts challenge power blocs while creating alternative visions of the world" (xxvi). These alternative visions are what I have attempted to demonstrate in my work, not through critical pedagogy specifically, but through an ecopedagogy that draws on this criticality which invokes movement between love and strife where the power blocs of economy, patriarchy and science may be contested. Popular culture in terms of ecology lends itself to a contested reading on how the relationships between people and power influence our everyday lives and thus, our environments.

Living Inside a "State of Fear"-

Michael Crichton's (2004) *State of Fear* is a fictional tale of engineered environmental disasters by an eco-terrorist group in hopes of profiting from the donations to environmental organizations which, they believe, will be offered out of the fear of others. These disasters are strategically located around the globe in an effort to emulate conditions brought about by global warming. When wealthy philanthropist George Morton stumbles onto this plot, he fakes his death in an effort to obtain proof of the plot. Peter Evans (Morton's lawyer), Sarah Jones (Morton's secretary), and Kenner (Physicist turned undercover agent) guide us through a tumultuous tale of uncovering, understanding, and then exposing the relationship between the eco-terrorist group and corporate and governmental agencies funding the group's activities.

After exposing this link, Kenner informs Evans:

I am leading to the notion of social control, Peter. To the requirement of every sovereign state to exert control over the behavior of its citizens, to keep them orderly and reasonably docile. To keep them driving on the right side of the road...to keep them paying taxes. And of course we know that social control is best managed through fear (in Crichton, 2004, p. 454).

This statement alludes to how messages in popular culture may bring to question how sustainability may secure that control; how, in our act to sustain opposition of this social control, we perpetuate that control through a culture of fear that helps keep us in place. And fear has certainly been embraced in terms of environmental catastrophe (the movies *2012* and *The Day After Tomorrow* come to mind).

But while Crichton questions this social control in relation to governments and their fictionally-depicted relationship with eco-terrorists in his plot, the conclusion merely substitutes one form of social control (government) for another (privatization and already existing dominating narratives). In the conclusion, Kenner confides: "For these same apes to imagine they can stabilize the atmosphere is arrogant beyond belief. They can't control the climate" (2004, p. 562); apes being those human beings who attempted to mimic conditions of global warming to instill fear in the public. But just when we think Crichton is leaving open these questions of control in relation to ecology and the environment, he close this door via the economy.

Evans asks, "What do we do now?"

And Morton, the white, male, wealthy philanthropist who has since been discovered as alive and has revealed the plot to the others, interjects his own thoughts and takes command of the

conversation. He concludes the text by deciding to start a new organization focused on "*management strategies*" (2004, p. 564, emphasis added) for wilderness tracts, different geological terrains, "complex environmental systems" (2004, p. 564), tackling "developing-world problems" (2004, p. 564) such as poverty and clean water, and implementing various technology assessments (there is his accountability).

Of course, all of this will be managed through "private funding" (2004, p. 564), Morton asserts, along with figures such as "scientists and field researchers and economists and engineers" (2004, p. 564). And these symbolic individuals of already existing narratives will work under the organizational name "Study the Problem and Fix it" (2004, p. 564) because government has failed to do so.

Morton states:

It's difficult if you are a government agency or ideologue. But if you just want to study the problem and fix it, you can. And this would be entirely private. Private funding, private land. No bureaucrats...we'd run environmental research as a business. And cut the crap (2004, p. 564).

This statement simplifies the ecological issues pressing upon society into a pragmatic desire to "fix" the problem with money and science; and Morton (Crichton?) believes that because of the bureaucracy associated with government agencies, the solutions

have not been addressed. But this statement also refers to a belief in a capitalist ideology where the private businessman holds the answer; that we must re-imagine the economy in ways that work for the benefit of the environment without questioning the impact the economy has on the environment. We hear traces of Gore's argument in Crichton's statement and I have pondered on occasion whether Gore perhaps influenced the creation of Morton, for Morton's desire to start a new company working in relation to the environment is precisely what Gore envisioned when starting his own company (as quoted in element one).

Evans asks, "Why hasn't somebody done it [created such an organization] (2004, p. 564)?"

"Because it's radical (2004, p. 564)," Morton concludes, which I question. Of course, that all depends on how one defines radical. From my perspective, radical would, at a minimum, question the narratives Crichton perpetuates such as capitalism, patriarchy and science rather than re-instilling them in their work. And while Crichton questions the state apparatus, he substitutes this form of control for economic control through private enterprise which promotes classism as not everyone is able to engage in private ownership of business. Morton states:

All these environmental organizations are thirty, forty, fifty years old. They have big buildings, big obligations, big staffs. They may trade on their youthful dreams, but

the truth is, they're now part of the establishment. And the establishment works to preserve the status quo (2004, pp. 564-565).

This statement was questioned back in element two in relation to organizations such as the Sierra Club which have accepted corporate donations in the past through matching gift funds for their employees, thus leaving one to question what they are sustaining: the environment or their establishment. And this demonstrates Fiske's contention that issues of control are embedded within texts, not only through what is present but also what is absent. Without an understanding of the hidden forces that influence our experiences within our environments, we risk substituting one form of control for another, which is what I believe Crichton did in his novel: substituting government control with private and corporate control in his conclusion.

This substitution has revealed itself in the contradictions arising out of U.N. documents such as *Agenda 21* which promotes authoritative institutions and narratives while simultaneously arguing to work for the benefit of all of humanity; this argument being made under the auspices of a democratic world society while simultaneously excluding those individuals and collective forces outside of authoritative agencies *Agenda 21* advocates for.

But ecological catastrophes such as the human-made model of global warming conditions portrayed by Crichton always seems to be in terms of the Earth- that the Earth will be destroyed and humanity will die as a result of that destruction. Catastrophe is rarely identified in terms of a more realistic ending where humanity destroys its own self through the good intentions of securing the economy, working sustainably with the Earth, only extracting as much oil as we take without ever questioning other ways of living beyond oil, thus securing an industry that cannot work for the benefit of nature by virtue of its own product. Catastrophe is rarely depicted as capitalism itself or as the securing of race, class, and gender divisions or the perpetuation of the vulnerability of dialogue until it is categorized as extinct and monologue assumes its evolutionary place in the now obsolete conversation.

The critique of Crichton's novel is interesting in that the actual plotline became secondary to his decision to include scientific data into the fray. What was most contested was his inclusion of what was considered non-fictional statistics into a fictional format, thus potentially confusing the masses into believing that Crichton spoke with an authority he did not possess. In other words, Crichton was hiding his political position regarding issues of global warming behind a fictitious label. What these critics dismissed was other ways of viewing

the world outside of a structure already set forth by modern interpretations of writing. And what they were perpetuating was a predetermined definition of fiction that reduces Crichton's writing to that which can be accounted for within that accepted interpretation.

To many people, global warming is false; a fiction. Environmental issues are only manufactured crises to promote fear within the living. As John Coleman, scientist and founder of the Weather Channel, states:

Global Warming, i.e. Climate Change, is not about environmentalism or politics. It is not a religion. It is not something you "believe in." It is science; the science of meteorology. This is my field of life-long expertise. And I am telling you Global Warming is a nonevent, a manufactured crisis and a total scam (2007, website).

Coleman argues the Earth naturally experiences climatic fluctuations in relation to the natural cycles of the sun. But these changes will not have the dramatic impact as he claims is being portrayed in the media. While Coleman does not refute that human presence has impacted climatic patterns, he does not believe this impact is significant and that concern over future food supplies or clean water or rising ocean levels or extinction of various species due to their loss of habitat (which is actually already occurring) is unfounded.

Coleman states, "I promise you twenty years from now, I'll be the one whose laughing" (2008, Video file); his laughter, however, may not be shared by those in humanity such as myself who argue that global warming itself is not the issue. What is at issue here is not sustainability nor maintainability nor accountability. What is at issue here is responsibility; a response to the environment and to the life-forces which reside on and with the Earth; a response to the Other that would compel us to act compassionately; a response to our children who will inherit this Earth; a response that includes individual and collective forces that fight for social and environmental justices who are being excluded from the debate.

While sustainability has not yet been determined, for me, to be the response that will lead us towards this love and care due to its potential of being consumed by accountability, ecology does offer such an opportunity. This is because ecology studies the *relationships* between species and their ecosystems. When focusing on relationships, then perhaps we may agree with Coleman that global warming is not about politics or environmentalism or religion; but we may also find common ground in the belief that ecology is about global warming *and* the environment *and* politics *and* religion *and* curriculum. Ecology is about compassion towards others, whether they be human or otherwise. Ecology is recognizing that we live in a web of

interconnectivity where one's actions affect others in subtle and yet ways. Ecology as a question of ethics encourages us to think how we may act responsibly with these other life-forms.

Ecology as a spiritual connection with the Earth implores us to act in love of her generosity and the giving of her body so that we may live. Ecology as a pedagogy requires of us to see the interconnections existing within school, the teachers, the students, the ideas and activities, as its own living organism ecologically interconnected with the larger society. Ecology encourages us to honor and respect the differences found within an ecosystem; not attempt to force these differences into categories of sameness which can be accounted for.

Whether we see global warming or sustainability or environmental degradation as a hoax, however, is really not the focus here. The focus is that we see at all; that we engage in an "ecological consciousness" (Morris, 2002) in hopes of building our relationships out of love and compassion that responsibility requires; a response to other life-forms. This compassion is not solicited when our response is towards a measurement device that takes no account of how these life-forms interact. Crichton demonstrated that in his novel through his minor characters' manipulation of data and events in order to perpetuate a state of fear. And this fear is reflected in schools today where teachers are encouraged to betray their

students to meet the demands of accountability. This, I am afraid, is nonfiction; a reality lived by teachers every day. And it is a reality that is being conveyed by those who disregard our presence in the environmental debate because we are not members of some authoritative institution.

Diprose (2006) asserts "what characterizes responsibility is not certainty, but questioning" (p. 440). And this questioning is what perpetuates the transformations needed if we are to transcend the ideology of accountability in favor of more responsible approaches. These questions are what propel individuals such as Doll to ask "What if...?" because it is the possibilities that life on this Earth offers to those of us who believe there is always a better way to live, a way "more life-affirmative than the world we inhabit now" (Pinar, 2004, p. 31). This life-affirming process represents what curriculum is to me in its open invitation for others to engage with the elements of the Earth via our ecological interconnections with our "lived experiences" (Pinar, 2004) within our environment. And this open invitation includes multiple perspectives from multiple frameworks questioning multiple narratives in existence while also introducing new ones into the fray; for this multiplicity is the only way to ensure the possibilities of the "future-to-come" for our children. It is they who are becoming the "Other" in educational settings which are marginalizing and homogenizing

them *because* they are children; it is they who are being reduced to by-products on a line being drawn between teachers and accounting devices; it is they who are the object of sustainable development as it seeks to meet present-day demands without sacrificing the ability of the future to meet their own demands (*Agenda 21*, 2004); it is they who we must respond to for they are future. And what better gift to pass on to this future than the gift of wonderment and possibilities and "What if...?"

And *this* is how education *could be*, too.

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