A JOURNEY THROUGH RELATIONSHIP INTO WONDER

by

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Abstract

This project is a philosophical discussion addressing the idea of what is value in education, more specifically, the value of the natural world and its impacts upon humans, and how we should be teaching this in our classes. I am proposing that the present educational system is defunct in many ways, but its inadequacies in fostering the development of a relationship with the natural world has negative repercussions for not only human society, but also the rest of the world. Biophilia is healthy, and should be fostered in the classroom setting, along with a more holistic attitude towards education. It is a major theme in many religions, and an integral theme in the human psyche. Through a more natural, gentle, and holistic approach to education, we can begin to solve some of the crisis of today.

Acknowledgement and Dedication

I would like to acknowledge the substantial contribution in terms of support and ideas given to me by my professors. Without the help of Bob Jickling, Ethel Gardner, David Zandvliet, Heesoon Bai, Penny Simpson, and especially the aid of Allan MacKinnon, I don't think I could have completed this paper. Thank you!

However, this paper is dedicated to Kea, Tillei, and especially to my husband Walter. Without them, life would be very dull.

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Pictures*

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A Journey Through Relationship Into Wonder

When I was a child, I had the most wondrous playground. I was quite shy, and a number of childhood tragedies had left me distant from my peers. It seemed to work for me though. I grew up in a small town in southern British Columbia, surrounded by warm, colourful flowers, a million shades of green, whispering birches, and endless hills. My parent's home consisted of a lawn and garden, with a mountain in the background. What a playground that was! The hill had a myriad of nooks and crannies, bordered by trees and views, where I could walk, and think, and read. I was a devotee of Tolkien's work, and, books in hand, I would hide amongst the trees, daydreaming of lands both fair and perilous, where friendly elves and cheerful hobbits would console a lonely child. Where I could walk for days on paths, and journey to different lands under a warm sun; where adventure waited outdoors for me. Where I felt safe.

My companions were two dogs and a cat. Siggi and Sam (a dachshund and a furry mix) would march with me, talk with me, and snooze while I read. Linus the Cat would harass the squirrels, and amuse us with her antics. We shared many an adventure in the hills, my trustworthy companions and I.

Now I am no longer a small lonely child, but my companions are still animals and the outdoors. I share my life with two dogs and a husband. Tillei and Kea are both imps; yet both provide me with endless companionship and good conversation. During the summer, when my husband is away fighting fires, most of my time is spent with my two impish hounds and I am never lonely. We will go on trips, dine together, and I never feel lonely with their company. Thanks to my dogs, I can walk unafraid in the beautiful Yukon, and never want for stimulus.

Picture 1 – Kea and Tillei in Haines, Alaska.

I feel sorry for people who do not have animals for friends, and the wilderness for a playground. The connection I have to the great outdoors and the relationship I have with my honest and faithful furry friends has made me a happy person. Yet I am aware of the uniqueness of my experiences. Rules as leash laws, no pets in parks, and the fear of the outdoors shown by many has taught me that we live in world that is disconnected from its fellow inhabitants – the roses, the trees, the wolves, and the rest – and now, from each other. Urban living is drying up the spirit of humanity. We are a dying race, and in our arrogance we are trying to take the rest of the world, as we know it.

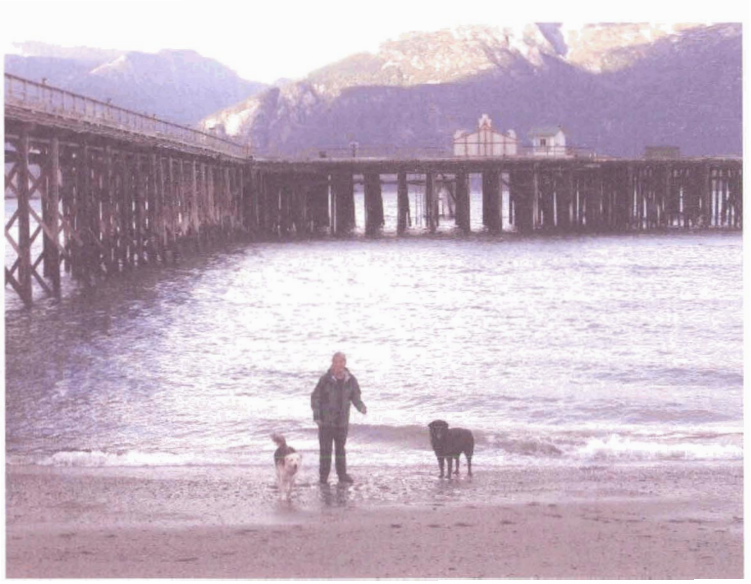
I do not feel that this is an intentional death. But the horrifying statistics, the recent hot summer that decimated southern BC, Europe, and parts of Asia, the gross amount of endangered species, the level of obesity and depression, and the tidal waves of poverty and famine, illustrates a world (and I do not just mean humankind) in peril. Yet what can we do to stop this? How can we help? What needs to be done?

This has not always been the situation. Even as recent as a century ago people lived in greater proximity to the natural world. School children may have had to walk as much as five kilometers to school, and hurry home to help on the farm, or take care of animals. People lived in greater danger from floods, and famine. They had to respect the

world. Today, science has helped to explain many of the phenomenons to us, but it has also removed us from the wonder found in the miracle of life (Carson, 1998, pg. 94). Science has taught us that animals do not feel pain, and has taken us away (through urban planning) from the very world we live with. I feel that the act of doing this has led to the sense of despair which affects many, and the planetary environmental crisis. There needs to be more emotion, more feeling, more relationships, with our world; what better medium to teach this than in the public schools?

When I started this master's program, I had some concerns over the validity of my commitment to the environment. I grew up loving the wilderness, and found it to be a haven of peace and serenity where I could wander at will and challenge myself spiritually, emotionally, and physically. I know now that my experiences have given me a unique gift – that of seeing the inherent worth and value in the world. Many people do not feel the way I do, and I thought, two years ago, that this was fine. But what right do I, as a teacher, have to inflict my values upon someone else? The answers, I now know, is none – but I can share my sense of wonder with the natural world in the hopes that children will grow with it. My quest of self doubt and discovery is now done, and I would share what I have learned about the value of wonder – that of the wonder of dogs, fish, plants, the rest of the world that so many have left behind. I am proposing a way, through sensual experience and relationship, to bring harmony to children in my class and perhaps save ourselves as a dying species. The Earth is our parent, friend, and confidant.

> *Those who contemplate the beauty of the earth*
> *will find reserves of strength*
> *that will endure as long as life lasts, (Carson, 1998, pg. 87).*



Picture 2 – Author, Kea, and Tillei in Haines, Alaska.

In this essay, I am proposing a way to revitalize education and leave a lasting legacy of growth for our world. It is also a response to current trends in education and society, which has been to eliminate "extra" school programs. I would like to prove the value of outdoor education, and demonstrate why it is so important to include it in today's curriculum. To do that, I will first discuss what value is, and how environmental philosophy is valuable to us. I will demonstrate its worth by looking at the environment in the most basic representations of human values – religion. Second, I will discuss what environmental ethics are, and where they belong in our class. I will be using philosophical foundations to verify why the goals of environmental education are so important. Finally, in the third portion of this essay, I will be discussing some ways that the environmental educator can include their philosophy and beliefs in the classroom. This will also include a general overview of some types of outdoor education programs and their mandates.

Part of this will also include the idea of relationship to the natural world. What do we relate to? Why? How is this important to us, and what happens if we don't have a mutually beneficial relationship with the natural world? How can we use this in the classroom as a teaching tool?

Four Elements Defined

I have chosen to organize my thoughts under the respective headings of Fire, Air, Earth, and Water. Their familiarity is of substances that make up our natural environment, but I have chosen to take their significance further and use these natural substances as part of the elemental forces that should be in our classroom. For the purposes of this essay, the headings mean the following:

* Inspiration – Rebirth – Motivation – **FIRE**; those ideas that give us the energy to develop new, creative ideas;
* Soar – Bird – Creativity – **AIR**; those ideas that allow our minds to wander freely, unhindered, down new paths;
* Ground – Rock – Mindfulness, Logic – **EARTH**; those ideas and principles that keep us grounded in reality, and simple common sense;
* Life – Connections – Class – **WATER**; all living forces have water in them, it is the binding force that keeps us all together.

If you consider the symmetrical beauty between these forces, and how they balance themselves, and are interconnected, you get a glimpse of the proportioned beauty of the natural world. You also glimpse the idea of the whole, greater than it's parts; all of these ideas combined make up the forces that create our world, and by themselves do not mean life; but when you have them interact, you get more than just air, earth, fire, and water. You have the Earth. If this were what is required for a whole Earth, would it not make sense to echo this natural law in our classrooms?

I chose to use these subheadings to ensure that I as covering the "whole" picture, as these elements make up our entire natural environment, and to have a balanced curriculum, I feel we should have parts of these ideas in our school system. Schools should teach creativity, logic, they should motivate the learner, and it should be connected to all things – an easy picture for the four elements to colour.

I would speculate that a great many of us respond to stress by going for a walk. Imagine the fresh air, birds in the trees, cool green leaves, and the feeling of well being

you get from being outside in the quiet. Do you not feel a sense of commune with the natural world? Does your mind not expand to incorporate new ideas? Do you not return to feel a sense of well-being, ready to once again function in the world? "The results (of a walk) are deeply restorative ... Ask people to visualize a relaxing condition and nobody comes up with a freeway, an airport, a downtown street. They imagine forests, sea coasts, mountain retreats, and fields of flowers. The sounds that relax are ocean surf, bird song, forest murmurs. It might almost be a bad sign that we need research to prove such obvious truths," (Duncan, 2003, pg. 1). This stanza from Service's "The Spell of the Yukon" illustrates that the Earth gives us much of what we need:

There's gold and its haunting and haunting
It's luring me on as of old
Yet it isn't the gold that I'm wanting
So much as just finding the gold.
It's the great, big, broad land 'way up yonder,
It's the forest where silence has lease
It's the beauty that fills me with wonder
It's the silence that fills me with peace.

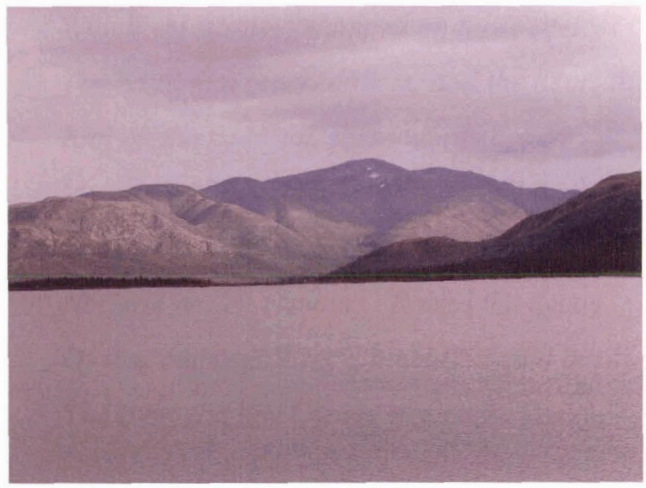
The author has forsaken gold's magnetism in trade for the beauty of the natural world.

Picture 3 – Looking towards Carcross from Montana Mountain.

Theorists believe that there is a societal loss of connection to the outside world. I know a story about an urban woman, who was a teacher, who was unaware of where potatoes came from, and how one picks raspberries. Many people who live in cities see trees planted as part of green urban-renewal projects, and have likely never encountered one in the natural world. I spent a substantial portion of my childhood wandering around in a forest with a dog. I have many happy memories of wandering about, finding bear tracks, and pretending I was a hobbit; I wonder what happens to those children who don't have these experiences outside. How many people feel no connection to the world? How does that loss impact them? Can they still have intimate personal relationships? I think if you explored social statistics, and connected those who were divorced, violent, lonely, and those in other terrible situations, you would see a direct correlation to those who lack real relationships and have no connection to the natural world. Loss of connection with the outside world affects all of our relations. We cannot live indoors, isolated, as slaves to a mechanistic culture, and be whole persons.

Coupled with this is a return to the archaic education systems of yesterday. Fine arts, outdoor education, and other "extra" programs are being cut, in order to save money. Despite the fact that there are at least seven different types of intelligences, the system

has decided that only two – logical and linguistic – have value, and therefore we must cut the extraneous other programs. I feel quite strongly that this is wrong. What happens to students who need to respond kinesthetically or musically? Society is losing a great deal.



Picture 4 – Fish Lake, Yukon.

Fire

Fire represents that which inspires, and motivates us – the forces that give us creativity. I feel that our environment can be a source of inspiration and a tool that educators use to interest and inspire our students to more altruistic goals. Unfortunately, many experiences students have had speak of that which is competitive and cruel in our culture, and what it eventually brings us to. Shelley writes a poem that explains much of humankind's failings in this area.

Ozymandias

I met a traveler from an ancient land
Who said – "Two vast and trunkless legs of stone
Stand in the desert…Near them, on the sand,

Half-sunk a shattered visage lies, whose frown,
And wrinkled lip, and sneer of cold command,
Tell that its sculptor well those passions read
Which yet survive, stamped on these lifeless things,
The hand that mocked them, and the heart that fed;
And on the pedestal, these words appear:
My name is Ozymandias, King of Kings,
Look on my Works, ye Mighty, and despair!
Nothing beside remains. Round the decay
Of that colossal Wreck, boundless and bare
The lone and level sands stretch far away."

(Abrams, 1993, pg. 672)

The poet speaks of a cold statue of a great king, who sought to conquer all – and yet now is a "colossal Wreck", surrounded by a sea of sand.

Picture 5 – Abandoned mine site on Montana Mountain.

Part One - What Is Education, Anyway?

In my cohort for this master's program, I had the opportunity to work with a wide variety of people from many different backgrounds. The majority of them were working in the school system in varied positions; a good percentage worked in special education, and felt that the system was wrong. Some few of us were regular classroom teachers, but only a very small minority of the cohort was not working for the Department of Education. When they were addressed by some of the cohort as 'non-teachers', I felt that was incorrect.

Education happens in many different ways, from many different people. Mary Catherine Bateson (1994) discusses the learning that 10-month-old babies have as being quite extensive. "An infant knows a great deal about the world, and what is expected of her," (Bateson, 1994, pg. 35). Who taught this child? Obviously, the parent, but the culture of this person would have played a substantial role in determining the way the baby responds to the world. In Learning Along the Way, Bateson observes two similar babies, one American, the other Iranian, and both respond to a friendly class of students quite differently; the American wanders about and flirts, while the Iranian stays with her parent.

I relate this story to state that, in my opinion, teaching is the conveying of information to another person in such a way to make it attainable and meaningful to that person. I am a teacher, in the most direct sense. But in my cohort, the woman who was a parent is also a teacher. My husband, who instructs fire protection classes, is a teacher. My dog teaches me to observe the world around me. We are all teachers in some way or form. There are many different teachers in all of our lives, most of who are not within the public educational system. This fact tends to be overlooked.

But, in my opinion, the most important part of teaching is something that tends to be under-emphasized. I don't feel it is the educational methodology that we subscribe to that makes the difference to our students; that is only part of the picture. I don't feel it is my planning, the way I dress, the lessons I use, or any of the physical trappings that make

me, or anyone else, a good teacher. What has been the single greatest achievement for me as a teacher, and the accomplishment that allows me to educate my students, is the connection I build with them – the relationship that I have with them. If I can give students a warm and inclusive place to learn, where they feel inspired and safe, they will reach out to learn. But if I can make them relate to me, listen to me, respect (if not like) me, and trust me – in short, if we have a relationship – students will try, will question, will use their minds. They will allow themselves to be motivated because they trust that what we are doing as a class is important to them.

Think to the relationships in all of our lives. We go to work, speak up for ourselves, learn, and do many other important activities – but I feel the colour in all of our lives comes from our families, our friends – our relationships. They motivate us by making our life worthwhile, through warm interaction. I also feel if we expand this circle to include the natural world we will be that much richer for the experience. But it has to be something familiar, and accessible; although many of us are concerned about the plight of rainforests in Brazil, it does not carry the more significant weight of local green space being paved over for a Wal Mart. As I was studying for this essay, I noticed that the curriculum theory texts are somewhat inaccessible to the public, who may be unfamiliar with their theories and ramblings. I feel this language of discourse is making education further compartmentalized. Shouldn't we be making our system more porous, more based in community?

Picture 6 – Carved boulder of First Nations elder

Curthoys and Cuthbertson (2002) talk of the importance of place, and local contribution, in their article "Listening to the Landscape". They speak of the importance of interpretation, as a "communication process designed to help connect people with their heritage through first-hand experience with the object, artifact, or landscape," (pg. 224). This could then be used to develop ecological literacy – a greater appreciation and enhanced connection with place – a connection that ideally leads to support for heritage conservation," (pg. 225; from Perssene, 1999, and Uzzell, 1996). This is seen as being led to more local celebration of culture, and a sharing of heritage.

Why is this important? Weston (1994) discusses the importance of reclaiming wild spaces in our communities – in changing the horrible empty lot into a park, where children could play. By doing this, people will not have to drive 75 km out of the urban environment to appreciate the natural world; they could just enjoy it in their own space. By fostering an appreciation of the natural world in our own areas, we cultivate the ideology that nature is part of our world.

By nurturing ecological literacy we aid in developing the ethic that our world is important. But the landscape has to be experienced through "all the senses … experience is the trigger for environmental literacy. It ignites curiosity and tests the muscles. It teaches us that we live in a world that is not of human making, that does not play by human rules," (Golley, 1998, from Curthoys and Cuthbertson, page 225). But it is no

good to try to ignite people through activities and areas that have no bearing on their day-to-day life. "Think globally, act locally" is the phrase. Most of us have little everyday interaction with areas and landscapes far from our homes, but if we can instill a sense of pride in our own homes, we will be motivated to care for them, and this philosophy will spread to other communities, to include other areas. People are inclined to care for their own nests first; this is a survival instinct.

By lessening the symbolic distance between the other, and ourselves we also, through this connection with all life, build compassion in people. "A variety of traditions in religion and moral philosophy call for us to lessen the symbolic distance between self and other, and it is in this context that compassion takes on its intention," (Curthoys and Cuthbertson, 2002, pg. 225). From this perspective, ecological literacy is very important in developing compassion, which will allow us to relate to others.

Gnanadason (1994) has noted that in India, there has been a revival of interest for rural-village women in their homes, and the care of their natural world. The government has noted that clear-cutting and company ownership of lands has led to an environmental catastrophe. So, they have privatized the land (page 179) which has led to the women, who use the land to grow food for their families, taking care of it once again. Gnanadason also notes that as the land was decimated, so fell the status of women; she hopes that as the people are able to care for their land, perhaps the standing of women could rise as well (page 183). This connection to the natural world, and a feeling of responsibility, and care, will likely lead to compassion for the land; which will likely affect others, and inspire a spirit of empathy for other people as well.

I would like to question the idea of relationship between species further. Leesa Fawcett is a researcher at the University of Toronto who has undergone a number of studies that look at the bond between species, and friendship, concern, and fear within these relationships. Her study (2002) looked at children, from kindergarten and grade five, and their ideas and stories about raccoons, bats, and frogs. Her research looked at children from a random sampling (she states that one of the many issues she had was narrowing the sample; once they heard it was about animals, every student wanted to

participate) and how their stories and ideas about these three animals differed from age, and from actual experience with the animal (which her study provided).

One finding from her research states that "animals disappear from our lives faster than they have at any other time in the known history of the world I believe animals are increasingly endangered in our minds and in our direct experiences, long before they actually become physically, ecologically endangered," (Fawcett, 2002, pg. 126). We are losing our animals, we do not know about them; their stories are unheard. We do not have empathy for them. This apathy is allowing their habitats to be destroyed, and their numbers to decline, and our world to lose them. We do not understand the effect of this, or the loss we will all suffer.

Fawcett goes on to explain how this is eroding children's self-concept. "The experience and observation of animals has historically played a primary role in what it means to be human, in terms of human language, art, science, and consciousness," (Fawcett, 2002, pg. 127; from Shepard, 1978, 1997; Berger 1980, and Lawrence, 1993). By not learning from the animals, we have loss a traditional sense of what it means to be human. Where are children making this loss up? Are we teaching them that we are mechanized robots, and our culture should operate by the same norms dictated in disturbingly unrealistic movies? These movies, the stories and ideas from the dominant culture, are being integrated by children into their own experiences, and colouring them; incorrectly. In Fawcett's study, many children were concerned about bats being blind and flying into their hair. More interestingly was that the older children in the study, when asked to invent a story about their interaction with this species, told stories that focused more on fear and urban mythology, and less on acts of kindness and reciprocity of compassion (page 132), in direct contrast to their younger counterparts. Fawcett says, "I wondered why there was such a difference between 5-year olds and 10-year olds, and if it had to do with age or schooling. Older children know more facts about animals..., but they also believe more of the folklore about animals... What knowledge do the younger children have that they potentially lose, or perhaps bury as they are schooled and

institutionally regulated by dominant culture texts and media stories?" (Fawcett, 2002, pp. 132,33)

What I have found, and also Fawcett studied, is that actual experiences with the animals are far more profound and impactive than mere stories. "Apparently, even a 20 minute multi-sensory, transactional and institutionalized experience of another animal makes a difference in the short-term, and perhaps the long-term. This interaction between the age of the children and simple experiential treatment brings into question the controversy between human developmental and cultural models and environmental experience. Thus, one of my essential findings is about the importance of direct experience for positive human and other animal relationships, and the implications of this for biological conservation and environmental education," (Fawcett, 2002, pg. 131).

In my own class, I recently finished a unit on medicinal herbs. My school's administration allows the intermediate classes to take their students out for outdoor education for a half-day, once a week. This fall I wanted to see what students would learn from herbs, most of which were familiar to them as weeds. One afternoon we harvested yarrow, chamomile, bearberries, Labrador tea, sage, rose hips, horsetail, and dandelion leaves. We made them into tea, and in their Field Studies duotang, my class tabulated the uses of this plant, a drawing, and what they thought of the tea.

The first teas were met with a great deal of skepticism and doubt. But by the end of the unit, my class was repeatedly asking to do more plants, to try more tea, and I noticed that most of them had kinder attitudes towards plants, as observed through their manner in the woods and conversational topics.

I have brought my own dogs into class and have also brought in speakers from the local Humane Society. Although I have not done any studies on my classes' attitudes before and after these experiences, I have noticed that in their journals and essays, my students are discussing caring for their pets more than they were at the beginning of the year. Perhaps they feel that I am a kindred spirit, or perhaps I have inspired a heightened interest in animals; I know past students will come up and discuss their pets with me at

length on their recess breaks. I am also aware that the students at my school tend to spend more time outside then students in other schools I have observed, and seem to be happy in the outdoors; and that their seems to be a lower level of obesity and violence in my school than the norm. We have a high number of parent volunteers, and parents coming along for Outdoor Education trips. I feel that feeling a connection to the outside world, and sharing enriching experiences with their teacher and peers, has allowed our school to be a happy, compassionate, and more productive place for students to learn.

Fawcett goes on to say that as we grow up, we tend to separate ourselves from animals, and that "it is a common belief in Western culture that human maturity involves a critical separation from the animal part of us," (Fawcett, 2002, pg. 133). Shepard (1982, from Fawcett, pg. 134) argues that in Western culture, human development in infantile and incomplete because our bonding with nature is thwarted. But immersion in natural surroundings elicits a sense of continuity with the natural processes and with life itself. Fawcett says that some people are able to "belong" to their animalness in an embodied, sensory, and imaginative way (page 135). But our culture teaches us to experiment on animals, and to exploit them for capitalist gain – I wonder, as does Fawcett, what overall harm this has on our society as a whole. I feel this is unnatural.

"Who do people love? Among those we may love are parents, siblings, other relatives, playmates, friends, teachers and leaders, lovers and spouses, children and pets. Who do animals love? There is good evidence that some animals sometimes love parents, siblings, other relatives, playmates, friends, teachers and leaders, lovers and spouses, children and pets. Love and friendship can be treated as points on a spectrum of affection," (Masson and McCarthy, 1994, pg. 99). We are not that different from one another.

"Western culture often teaches children to divorce themselves from their 'animalness'. This work is situated in the context of a larger project to explore the notion of radical otherness, an exploration of the notion of the 'other' across not just class, race, and gender but across the species boundary. The opportunity to experience other living beings, to differentiate between diverse animals, is integral to a child's sense of self, as a

human, above and beyond being an individual," (Fawcett, 2002, pg. 136). We have to see ourselves as an animal, in a community of animals, and that this connection is very crucial for us. Through it, we reach other beings in a real and meaningful way.

Picture 7 – Kea and Tillei on Montana Mountain.

"Interspecies play, a commonality in nature, has a special charm for humans. If two species of animals can reach out joyfully across the gap between them, it seems that we too might reach across this gap and share their joy," (Masson and McCarthy, 1994, pg. 153). Kea, Tillei, and I play very complex hide and seek games together, with most of the rules invented by them. I have seen my dogs enjoy a beautiful view, and sat with them, touching, and sharing in the experience, and felt love from this encounter. I have heard that many scientists would say that my dog is not capable as perceiving this view, but along with Masson and McCarthy, I disagree. "What is disturbing and irrational is the decision to explain human behaviour in spiritual terms of a sense of beauty, and animal behaviour in mechanistic terms of demonstrating fitness. Again, the object seems to be to define humans as higher an unique," (Masson and McCarthy, 1994, pg. 196). This attitude has contributed to our societies' overall disconnection with the natural world, by putting fences around it, and referring it as "its" and something separates from our own nature.

In her lyrical essay, The Sense of Wonder, Rachel Carson also addresses the wonder and the magic found in our natural world. She is speaking about her experiences with Roger, her nephew, and the joy and delight they both have from the natural world – no formal instruction in plant names, species distinctions, just marveling at the beauty of their environment. Carson, the author of Silent Spring, has a reputation of being an expert in the field of ecological awareness, and The Sense of Wonder was seen as her offering to the world.

Carson cautions the adult to adopt the child's attitude towards nature; full of wonder and thrilled at what is being discovered. She urges us to share adventures in the outdoors, the day-to-day phenomenon that exist right outside our door. "The sharing includes nature in storm as well as calm, by night as well as day, and is based on having fun together rather than on teaching," (Carson, 1998, pg. 17). Carson takes her nephew on walks of exploration, and expresses her own admiration and delight upon seeing various flora and fauna. She notes that "no amount of drill would have implanted the names so firmly as just going through the woods in the spirit of two friends on a voyage of discovery," (Carson, 1998, pg. 23).

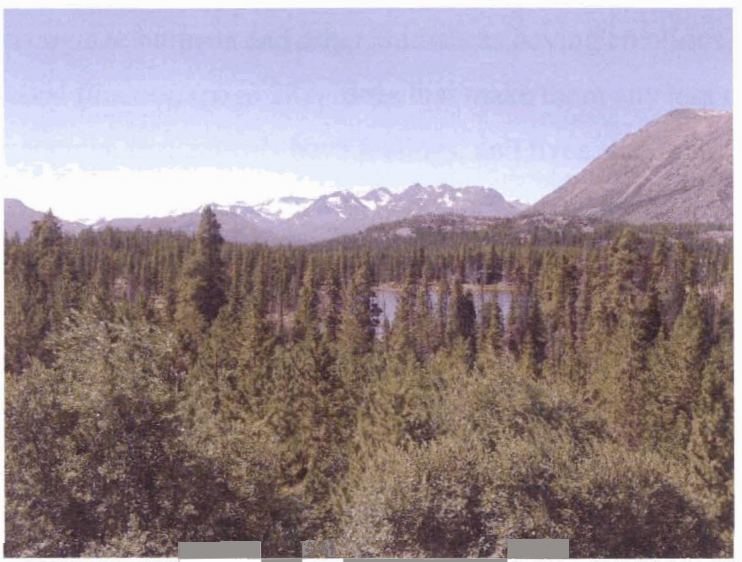
What a wonderful idea. The simple act of enjoying the natural world teaches children that it is not a sign of maturity to be disconnected, and from this they not only learn appreciation but also the names, and the signs, of the life you come across.

Carson notes that many of the things they enjoy with Roger are things that many children are denied, because they keep them up late or dirty the rug. Roger has watched the full moon going across the bay, and many other nighttime occurrences, and Carson states that "the memory of such a scene, photographed year after year by his child's mind, would mean more to him in manhood than the sleep he was losing. He told me it would, in his own way, when we had a full moon the night after his arrival last summer. He sat quietly on my lap for some time, watching the moon and the water and all the night sky, and then he whispered, "I'm glad we came,"" (Carson, 1998, pg. 31). Just like my students, telling me about their pet's weekend, once children feel its safe to enjoy their world they will do so whole-heartedly, and with joy. Perhaps if more of us were

able to share this type of experience with children, we would not have grade five students who were already losing their sense of wonder and affection for the natural world.

"If a child is to keep alive his inborn sense of wonder without any such gift from the fairies, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement, and mystery of the world we live in," (Carson, 1998, pg. 55). We need to lead our children through this type of experience. As Carson instructs us, the names are not half so important as the child learning that nature contains small miracles in everyday occurrences; the names can be taught later through a guidebook.

> *There is something infinitely healing in the repeated refrains of nature – the assurance that dawn comes after night, and spring after the winter.*
> *Carson, 1998, pg. 38*



Picture 8 – Lake along Chilkoot Trail.

Carson goes on: "I sincerely believe that for the child, and for the parent seeking to guide him, it is not half so important to *know* as to *feel*. If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are

the fertile soil in which the seeds must grow. The years of early childhood are the time to prepare the soil. Once the emotions have been aroused – a sense of the beautiful, the excitement of the new and unknown, a feeling of sympathy, pity, admiration, or love – then we wish for knowledge about the object of our emotional response. Once found, it has lasting meaning. It is more important to pave the way for the child to want to know then to put him on a diet of facts he is not ready to assimilate," (Carson, 1998, pg. 56). This reconnection with the natural world is also a benefit to the adult as well; emotional connection and wonderment can renew a person.

Emotions play such a powerful role in all of our lives that it is a wonder that they are not given greater validity as a learning tool. They add the spice to our relationships, and give events meaning by delivering joy, fear, love, admiration, and feelings. "The path to the good life goes primarily through the emotions. Only secondary does it go through the apparatus of reason," (Naess, 2001). What would happen if our culture recognized the emotional lives of animals? Masson and McCarthy (1994) comment that many biologists recognize humans and other animals as having emotions, but purely for a behaviour or survival function (page 28) – does that make them any less of a learning tool? Children recognize that animals have feelings, and lives, and many pet owners can see this as well. My dogs are overcome with happiness when I come home – which could be seen as their eager anticipation of dinner – but then why do they then hide my shoes? Recognizing ourselves in the actions of animals builds a connection, a relationship, which can inspire compassion and a sense of community.

Masson and McCarthy (1994, pg. 37) note that there is no scientific proof for emotions, and yet we all know that they are real, and important in our lives. I believe, as do Masson and McCarthy, and many others, that animals have rich emotional lives as well. Using these animal's experiences as stories in the classroom could be a valid teaching tool. Children relate to them, and respond on a theoretical and emotional level. As Fawcett and Carson both noted, children have a boundless fascination with the natural world and it can be a very motivational teaching tool in an abundant mediums. From an ethical standpoint, it is far more compassionate to see ourselves as equal with the natural

world. "It has always been comforting to the dominant to assume that those in subservient positions do not suffer or feel pain as keenly or at all, so they can be abused or exploited without guilt and with impunity," (Masson and McCarty, 1994, pg. 43). This attitude has been a great contributor to not only animal cruelty, but also racism. Scientists have been leery of promoting anthropomorphism, but as Midgely puts it, "animals are the group to which people belong. We are not just rather like animals; we *are* animals," (Masson and McCarthy, 1994, pg. 48). So teaching children compassion for other beings is not an educational failing!

Just as Weston (2003) urges teachers to let their classrooms to embrace all the senses, Carson also urges the exploration of nature to use all of the senses. This is becoming so very important. Standardized testing has become the ruler that schools must use to measure their worth, yet they only look at two types of intelligence – linguistic and logical. Communication is only, at the most, 30% of what a person is saying. How much do we miss by not using all of the senses, and not making our classrooms an ignition for our senses? I feel this would make them more alive places. Nature has its' place for inspiration for all of the senses.

Howard Gardner wrote Frames of Mind: The Theory of Natural Intelligence in 1983. Gardner proposed that there were seven (now eight) forms of natural intelligence: verbal-linguistic, math-logic, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and now naturalist (Nicholson-Nelson, 1998, pg. 9). We all have inclinations towards every area of intelligence, but are stronger in one area. Gardner felt that his theory could be used by educators in three ways:

* cultivating desired capabilities and talents in our students;
* approaching a concept, subject matter, or discipline in a variety of ways;
* personalizing education as we take human differences seriously (Nicholson-Nelson, 1998, pg. 10).

The challenge for the classroom teacher is recognizing that the student who does not excel in Math or Language Arts is still bright (Nicholson-Nelson, 1998, pg. 9) but needs to find the way in which they can succeed in school. If a student does not discover

this, their self-esteem and their belief of themselves as a successful, lifelong learner can be diminished substantially. I would propose that a teacher who exposes their class to the natural world would have the stage in which all learners can succeed. Here are some ways the natural world can aid all learners:

* Verbal-Linguistic – those people who can read, write, or tell stories; folks can read nature stories, or write stories about nature;

* Math-Logic – Einstein viewed life through this lens; these people can categorize, think problems through; nature would offer scope for this individual;

* Spatial – those people who operate with pictures, or colours; nature offers limitless scope for the artist;

* Bodily-Kinesthetic – people who learn through moving, and nature can challenge these people by allowing them space and terrain to move about and explore;

* Musical – people who are musically inclined will have boundless inspiration through nature, but could also learn through bird song and sound;

* Interpersonal – people who learn best in groups can solve biological problems or work on projects having to do with nature;

* Intrapersonal – people who work best on their own can explore nature, and have space, while being outdoors;

* Naturalist – people who are strong at understanding nature will obviously benefit from the natural world.

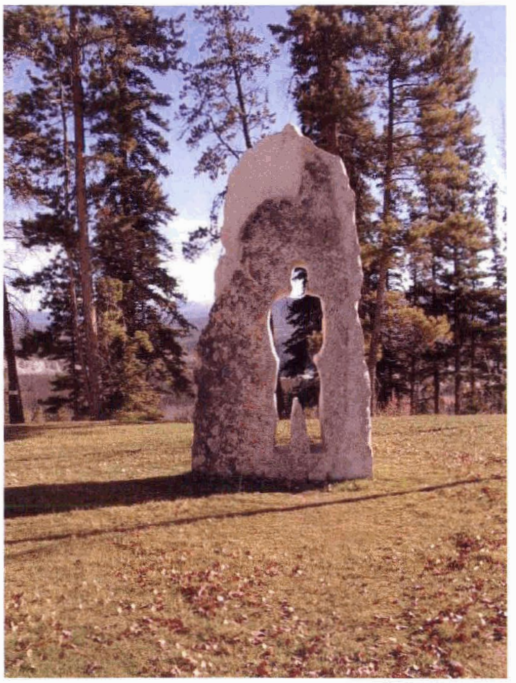
Cultural differences can also be bridged in the outdoors. We all have the natural environment in common. Most indigenous cultures have a sense of reverence and a spirit of connection to the natural world, which could be fostered in outdoor education. You can also teach survival skills through the outdoors – how to read the weather, make a fire, or not to get lost – skills which always have contemporary value.

This section of the paper looked at motivation, and addressed the many different ways that students can be inspired by the natural world, and the ways in which we can use this to foster better learning practices in our own classroom. Carson asks, "What is

the value of preserving and strengthening this sense of awe and wonder, the recognition of something beyond the boundaries of human existence? Is the exploration of the natural world just a pleasant way to pass the golden hours of childhood or is there something deeper?" She answers that those "who dwell, as scientists or laymen, among the beauty and mysteries of the earth are never alone or weary of life. Whatever the vexations or concerns of their personal lives, their thoughts can find paths that lead to inner contentment and to renewed excitement in living," (1998, pg. 100). What a gift to awaken in students; it will last a lifetime.

Air

Air is to mean those aspects of life that allow us to soar, and which give us creativity, and to inspire us. I am also including those ideas and principles that guide our lives, and seek to profess our beliefs, values, and ethics – religion.



Picture 9 – Statue of man at Yukon College, Whitehorse.

What is Value? How is the Environment Valuable?

Values are connected with a person's beliefs and ethics in a person's psyche, which, with their life's experiences, formulate part of their identity. Values are what a person holds to be important. Beliefs are what you think to be true, and ethics are rules to live by. All of these three things vary from person to person. They can change in that same person according to circumstances, and situations.[1] Values evolve constantly, but give us the lens with which we view the world.

How do people normally express value? It is very easy to compute values in a monetary sense; for instance, the price of a car. Wilderness is often given an economic value according to its use of a resource. However, I do not wish to address our environment as something that is here for our exclusive use, and so will explain its worth as an intrinsic value. To do this, I would like to address one path that many follow in order to aid in the formulation of their values; that of religion. For many, religion provides an invaluable map for life.

[1] The information on beliefs, values, and ethics comes from my B.A.'s studies in counseling psychology.

Picture 10 – The value of water; Schwatka Lake Dam in Whitehorse.

What exactly is religion? That is a very complicated question. My own personal definition is it is a way that people try to make sense of things that are greater than the individual. It differs from place to place, time-to-time, and even person-to-person. Most religions have similarities, though most, over time, have adapted to their particular time and place. But, it is important to remember that "there are no major ethical differences between the basic texts of Judaism, Christianity, Islam, Buddhism, Confucianism, and Greek and Roman applied philosophy," (Saul, 2001, pg. 87). All strive to teach goodness, conscience, reverence, knowledge, and to reach beyond the self, imagining the other, (Saul, 2001, pp. 87, 127). Most religions in their earlier forms acknowledged the importance of the earth, and our relationships with animals (Parrinder, 1983, pg. 65); these values are echoed today. Buddhism emphasizes mindfulness of the living world, and the importance of observation and learning of it (Parrinder, 1983, pg. 273), while many aboriginal religions, including the Shinto religion from Japan, worship the natural wonder in all, the life from God (Parrinder, 1983, pg. 431). Some current movements in Christianity are looking to "engage individuals and congregations in knowing God more fully through deepening relations with all of God's creation," (Earth Ministry website, 2003). While the present trend in education is to prohibit moral language, and value-laden philosophy, this does not mean that religion does not have its place in our society.

In fact, religion is extremely important and unacknowledged as such. Many people are religious, and their covenants' teachings guide their values. Their values include a respect for the earth in their foundation. These poetry selections from Abraham (1994, pg. 77) illustrate this global concern.

Supreme Lord, Let there be peace in the sky and in the atmosphere,
peace in the plant world and in the forests;
Let cosmic powers be peaceful;
Let Brahma be peaceful;
Let there be undiluted and fulfilling peace everywhere.
Atharvaveda

May every creature abound in well-being and peace.
May every living being, weak or strong, the long and the small, the short
and the medium-sized, the mean and the great,
May every living being, seen or unseen, those dwelling far off, those near by,
those already born, those waiting to be born,
May all attain inward peace.
Buddhist prayer

O God! The creator of everything!
You have said that water is the source of life!
When we have needs, you are the Giver.
When we are sick, you give us health.
When we have no food, you provide us with your bounty.
Muslim prayer

Be praised, my lord, for Brother Wind
And for the air, cloudy and clear, and all weather!
By which you give substance to all your creatures!

Be praised, my Lord, for our sister Mother Earth,
who sustains and governs us
and produces fruits with colourful flowers and leaves.
St. Francis of Assisi

Picture 11 – Author's husband and abandoned Buddhist temple on Montana Mountain.

I would like to address the particular teachings of four religions, which have particular relevance for this topic, and for the direction that education could be going. The first is the teachings of traditional societies. Aboriginal traditions have been ignored the world over, which means that we are not only alienating them, but also a sustainable way of life.

Most of us are familiar with some aspects of aboriginal cultures and teachings. We may know that stories are immensely important to most indigenous groups of people, and those families, particularly elders, were held in high esteem. The teaching of children was seen as a community duty, and children learned through observation, discovery, and kinesthetic modeling. Contact with primarily European cultures, which

were technologically "advanced", led to the general decimation of most aboriginal cultures and their gentle, sustainable way of life.

This is a loss. I think the present environmental statistics and the high percentage of distraught people show that our capital-driven culture, founded primarily on the rapid acquisition of material goods, is not advanced, and that the aboriginal cultures have a good deal to teach us on alternate ways of living, learning, and teaching. The loss of indigenous cultures has led to a gradual eroding of the environment, and also of the spirit of the Earth as a whole. However, there is a revival of renewed interest in these cultures, and also a spirit of regrowth in their ways of life.

In 1992, the Dene research center hosted a conference with aboriginal representatives from Canada, the Solomon Islands, the African Sahel, and Thailand. Taking their traditional viewpoint – their religion – they looked at their methods of teaching, as compared to Western science, and how modern educational systems were directly contradictory to their culture. What is interesting to me is how much more humane and educationally sound are the traditional viewpoints.

Picture 12 – Boulder depicting turtle at Yukon College, Whitehorse.

TEK (Traditional Environmental Knowledge) is recorded and transmitted through stories, while WS (Western Science) employs the written word. Stories teach a lesson we can all hear, and enlist our emotions and values.

TEK is learned through observation and hands-one experience, while WS is taught and learned in one environment only, abstract from applied context. This hampers our "deep" (using emotions and understanding) comprehension of the lesson.

TEK has an understanding that elements of matter (earth, wind, fire, and water) though inanimate, have life force, as do all parts of the natural world, which are infused with life. Respect is fostered through this belief.

TEK does not assume that human life is superior; all life forms have kinship, and are interdependent; humans are not given the inherent right to control and exploit nature for its own interests at the expense of other life forms. This does not say that there shouldn't be development; rather it should be sustainable and respectful to the world.

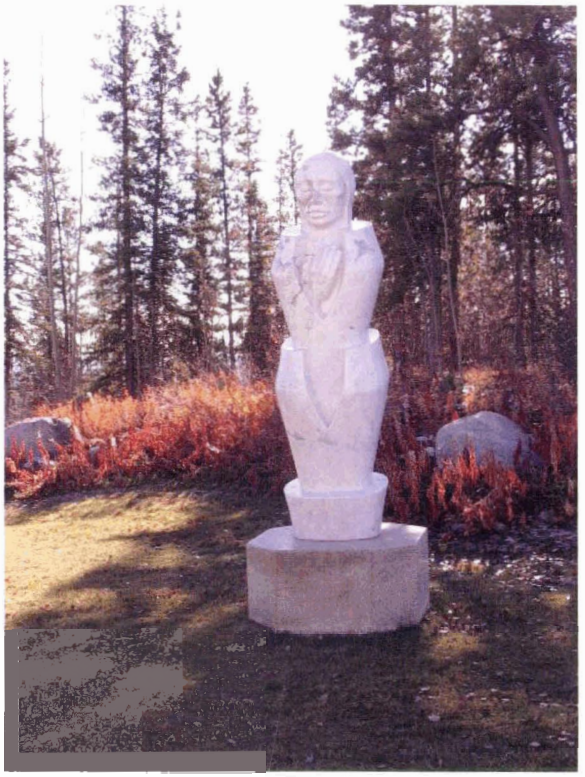
TEK is holistic, while WS is reductionist; all elements in life cannot be understood in isolation from one another. Orr (1994) and others feel that we should teach all subjects together, with no isolated topics, as this affects our global understanding.

TEK is intuitive, while WS is analytical; TEK emphasizes emotional involvement as a way to understanding, while WS looks at abstract reasoning, and removing yourself from what is being observed. That allows us to make harmful decisions.

TEK is qualitative, while WS is quantitative and does not have intimate knowledge of trends and does not regularly collect data by resource users. In addition TEK data collection is diachronic data (small sample observed over long time) while WS is synchronic (large sample observed over short time). While both of these viewpoints are valid, we need to be fairer with our data collection methods.

TEK is rooted in social context and sees the world through social and spiritual relations between all life; these relations are based on reciprocity and obligations, and shared communally; WS is hierarchally organized, and vertically compartmentalized, with sections managed separately. Weston (1994) feels we should respect all animals as social and sentient beings. I feel we should see all life as deserving of respect.

TEK explanations of environmental phenomenon are based on collective experience, not laws (Johnson, 1992, pp. 97, 98). Laws are ever-changing, where experiences are knowledge gained through emotional events, fixed in time. Experiences are also valid.



Picture 13 – Statue of First Nations woman at Yukon College, Whitehorse.

Most indigenous cultures see the Earth as very important. Living in such close proximity to the Earth as these societies were led them to have a healthy respect and reverence for their home. Many of us, however, are not familiar with, and could learn from, the depth of these spiritual ties. Kyung (1994) notes that when indigenous African or Asian peoples "approach or pass rivers, trees, or mountains, or when they plant, fish or harvest, they ask permission from the spirits of the land, the mountains, the plants and trees, the rivers and streams. They do not take from nature more than they need or without asking for what they need for life. They try to return to nature in some ways

what they have taken, as if to repay this debt," (page 177). This mindset allows for respect of the natural world.

This attitude leads to the Earth being perceived as sacred, and through it, greater care being taken to preserve its resources. Humans are seen as being part of the whole, "co-creators" (page 177) in the Earth and therefore a part of the whole. While it is impossible to measure, in today's day and age, whether or not these people were happier than us, I think the mere fact that most of their societies lasted, in various forms, for many thousands of years, is quite profound an argument for our society adopting at least part of this attitude.

Maori cultures in New Zealand are working through their issues and becoming strong once more, and a key part of the revival of their culture is rediscovering not only their language, and way of life, but also their spiritual connection to their beautiful home. Cooper (1994) notes that he gets his spirituality from "the soles of his feet" (page 207), and says that "technology is not the measure of human development. That is always through the ways we love and treat the young, the regard and reverence we have for the old, and, most specifically, the status, love and respect we accord to women. Yet none of these human values can be compartmentalized, any more than we can differentiate our lives from the world we live in," (page 211).

Maori beliefs and values are so tied in to the natural world that they cannot see the separation between their lives begin, and where the natural world ends. Most indigenous societies work according to this value. "There is an awareness that the Spirit moves through all life. The Great Spirit is in fact the 'cosmic order'. Aboriginal North American spirituality draws this cosmic order together with human life in a very experiential way. Our view of the creation and the creator is thus an attempt to unify the worldview of human beings who are interdependent. We are a part of all life," (McKay, 1994, pg. 216).

Pei Shengi has written a thoughtful discourse on the lives of the Dai people in Xishuangbanna in the People's Republic on China (1993). The Dai people have a forest-

orientated philosophy that advocates respect for forests, plants, animals, and their own ecological niche, through a system of formal and informal norms and rules. The conservation culture of the Dai, combined with indigenous management strategies for natural resources for productive purposes, succeeded in maintaining the forests of this region at a high percentage of biological diversity.

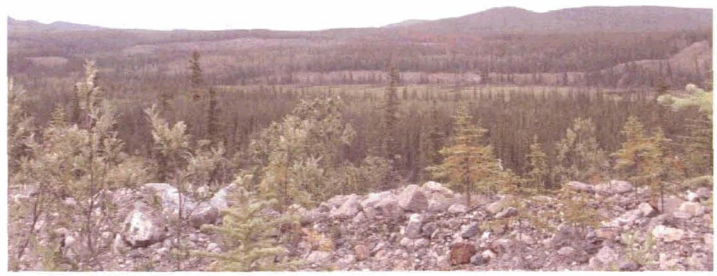
It is also worthwhile to note that aboriginal beliefs are also rooted not to "a temporal awareness [as in the Western tradition], but is subordinate to [their] sense of place," (Tinker, 1994, pg. 221). The essay collection of Cooper and Nee-Benham, Indigenous Educational Models for Contemporary Practice: In Our Mother's Voice (2000) is a collection of aboriginal educational expert's thoughts on what needs to happen for their people's traditional educational practices to succeed. In reclaiming their culture, and adapting it to current society, they have not lost sight of the importance of their connection to the Earth. "Many groups recognize that traditional indigenous knowledge and thought holds critical answers for some contemporary societal issues. For example, as others in the world see the destruction of the rivers and rainforests and there negative effects, they recognize that the survival of humankind depends upon the survival of the Earth. Furthermore, they often realize that the framework for future development, referred to as *sustainability*, was always an integral part of most indigenous cultures," (Johnson, 2000, from the Foreword).

While I feel that it is unrealistic to even try to bring us all back to our ancestor's way of life, I think that we have a lot to learn from ancient ways. A spirit of reverence for our homes coloured the thinking of all indigenous cultures, in some way, shape, or form. We have lost this spirit as a society, and I feel regaining it is crucial. Halifax (1990, from Dharma Gaia) remarks that prose (29) is the language of the Earth, for it follows the rhythms and cadences, flexibility and mutability, that the Earth flows to and with. This poem by Robert Service echoes what the Earth can teach us, in its' own language.

The Three Voices

As I lie on the lonely beach
Chanting aloft in the pine tops
The wind has a lesson to teach;
But the stars sing an anthem of glory
I cannot put into speech
The wind is a mighty roamer
He bids me keep him free
Free from the taint of the gold-lust
Hardy and pure as he.
Cling with my love to nature
As a child to the mother-knee
Here by the camp-fires' flicker
Deep in my blanket curled
I long for the peace of the pine gloom,
When the scroll of the Lord is unfurled.
And the wind and the wave are silent
And world is singing to world.
The waves tell of open spaces,
Of hearts that are wild and brave
Of populous city places,
Of desolate shores they lave.
Of men who sally in quest for gold
To sink in an ocean grave.
But the stars throng out in their glory
And they sing of the God in man;
They sing of the Mighty Master,
Of the loom his fingers span,

Where a star or soul is part of the whole
And weft in a marvelous plan.
Robert Service



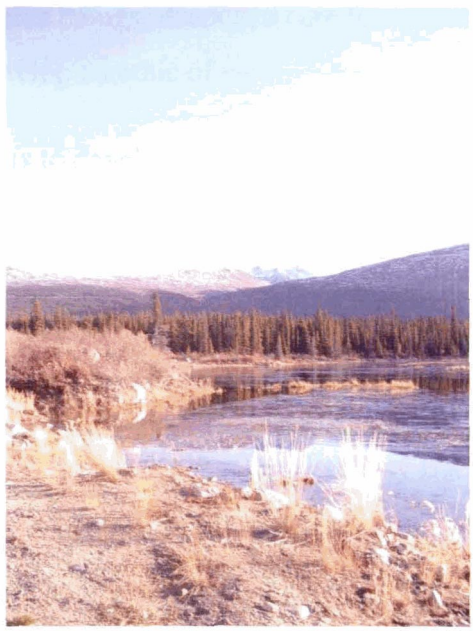
Picture 14 – Looking towards the Mount MacIntyre Ski Trails in Whitehorse; what lessons were learned there?

Through their religion, most traditional societies had a humane way of looking at the world that has validity today. If we consider that all societies started out as traditional societies, and that most of them probably lived with these principles, it makes sense why we are missing something in our values, in our society, and in our education system today. We have become too mechanical with our lifestyles, beliefs, and ethics. Moving away from these traditional values has resulted in unhappiness, as it is unnatural.

The second religion I would like to address is Taoism, which has a simple way of looking at the world. I believe if we keep things simple, we will usually be doing something right, and Taoism echoes that idea. Taoism originated in China after the rigid structure of Confucianism. Its origin theory is very familiar, if you have ever read anything about other religions.

A long time ago, people lived in paradise. They lived a clean, idyllic lifestyle in commune with the natural world, and everything was at peace. Then man's ego began to

rear its head, and eventually humans were on their own, alienated from the natural world. Man was no longer happy, and began to search for the happiness he had lost. When he found something which reminded him of paradise, he coveted it and tried to possess it utterly, thereby introducing stress into his life. But searching for lasting happiness and accumulating temporary substitutes for it brought him no happiness. Separated from the earth's spirits, man became insensitive and tried to eat the animals. He became subject to diseases. Animals hid, and men learned how to manipulate themselves, which led to wars. Eventually, teachers who knew life's secrets came, and man, who eventually learned his lesson, came again to paradise, (Hoff, 1992, pp. 13-17).



Picture 15 – Lake along road to Montana Mountain.

Taoism is the art of living in harmony with the earth's rhythms (Hoff, 1992, page 18). It emphasizes courage, affection, faithfulness, and honesty (Hoff, 1992, page 35). Taoism also believes that although goals are important, it is the process in which we do things that makes us wise, or happy, or whatever. If we do things in the wrong sort of way, it makes us miserable, angry, or confused; but if we do things in the right way, we are happy and are goals are beneficial for us (Hoff, 1982, page 11). I can think of a

number of personal examples where this would apply, but if we look at how unhappy our society is today, that would tell me, according to Taoism, that we are living the wrong way. We should be living with WuWei (Hoff, 1982, page 68); without meddlesome, combative, egotistical effort.

Now, we need to look at the value of life, and the value of life as a lifestyle. Most of us would agree that life, particularly our life, is very valuable indeed. Most of us would also agree that the beliefs and ethics that we hold sacred are also of value, in the extent with which they allow us to live our lives according to the values we hold. But how about life as a value? How do we look at living life in accordance with natural laws, and natural places, as a valuable thing and something with which we should strive for? "Extended care for nonhuman beings, deepened care for human beings," (Naess, 2002, page 107). We need to develop an ethic of care.

One way to do this is to develop a code of conduct, of course, a system of ethics, or rules to live by, which are in accordance with natural laws and rhythms – the "natural" way to do things. Hoff (1982) has an interesting premise. Using Taoism, the surest way to become tense, awkward and confused is to develop a mind that tries too hard (page 77) – to avoid natural laws. He tells this story as example.

Looking back a few years we see that the first Bisy Backsons (meddlesome, inefficient folks) in this part of the world, the Puritans, practically worked themselves to death in the fields without getting anything in return for their tremendous efforts. They were actually starving until the wiser inhabitants of the land showed them a few things about working in harmony with the earth's rhythms. Now you plant, now you relax. Now you work the soil; now you leave it alone. The Puritans never really understood the second half, never really believed in it. And so, after two or three centuries of pushing, pushing, and pushing the once-fertile earth, and a few years of depleting it energy still further with synthetic stimulants, we have apples that taste like cardboard, oranges that taste like tennis balls, and pears that taste like sweetened Styrofoam, all products of a soil that is not allowed to relax. We're not supposed to complain, but There It Is (page 100/101). As a culture we have ignored the way the world works, tried to control it, and

wrecked a good many things in the process. According to Taoism, life is supposed to be fun (Hoff, 1982, page 20). We have become robotic in our thoughts and emotions, and robots don't have values or emotional lives.

I would like to take Taoism one-step further to explain what has gone wrong with our education system. This frantic energy is our society has resulted in a whole bunch of Tiggers running around (drawing from E.E. Milne characters) and an Eeyore education system, coupled with a bunch of Owl scholars. The Owl (the know-it-all in Pooh's world) scholars try too hard to be clever (compartmentalize life) and so do not look deeply enough to find what makes life truly unique (Hoff, 1982, page 37). They do not look at the Mystery of the Uncarved Block, a Taoist principle that looks at the beauty in the simple and the quiet, the natural and the plain (Hoff, 1982, page 21). The scholars are led astray because of their brain, and can't see the forest or the trees because they are caught up in the wood.

The Eeyore (the negative influence on Pooh's world) education system sees childhood as a waste of time (Hoff, 1992, pp. 72, 73, 1992). Their response is speed up – to give students more information, faster, and when they're younger. To put children in school at the earliest age possible, then load them down with homework, to take away their time, their creativity, their play, their power; then plug them into machines. This results in a bunch of Tiggers (who are disasters waiting to happen), impulsive, hyper, and only interested in instant gratification. To me, that sounds like an awful lot of students who can't learn unless it's in 30-second sound bites. I know many such students.

I would like to conclude this discussion on Taoism with Hoff's commentary on both the environmental policy and education principles of today. I find the similarities between it, and the traditional viewpoints of aboriginal people, quite interesting. Both groups want a more holistic lifestyle, and education system, which respects the natural world. There is no room for a successful lifestyle if we don't. We need to be Poohs and Piglets – to look at life simply, kindly, and to enjoy life, and the trees. The Uncarved Block principle says to relax, be compassionate, and enjoy life. We need to slow down and breathe.

"The natural world is all right, voters across the country seem to be saying, as long as its preservation doesn't interfere with the process of destroying it to earn money. Let Someone Else pay for its protection.... Unfortunately for our chances of survival and happiness, we in the West have inherited an Eeyore version of reality, which denounces the world as an evil place whose ways are to be ignored by the wise, and an Eeyore sort of science, which sneers at anything beyond a mechanistic view of the earth – the secrets of which it attempts to sneak out of it bit by bit for the purposes of manipulating the natural world. Is either of these ways very likely to get us out of the mess we're in? Or to even help us see what's causing it? In reality, as anyone ought to be able to see by now, the natural world needs to be protected from us. Its wisdom needs to be recognized, respected, and understood by us, and not merely viewed through the distorted lenses of our illusions about it," (Hoff, 1992, pp. 129-132).

Perhaps the most "earthy" of all religions, Buddhism is rooted in concern for the natural environment. Its 2500-year-old traditions are still followed throughout the world today, and Buddhism is found in over 86 countries, with 18 variations. A Buddhist does not sacrifice a living being for worship or food, but instead sacrifices their own selfish principles (Sponsel and Natadecha-Sponsel, 1993, pg. 84). The core principles of Buddhism are as follows (from Sponsel and Natadecha-Sponsel, 1993, pg. 81) and are based on respect and mindfulness:

<u>The Four Noble Truths</u>

Life is discontinuity, dissatisfaction, suffering

The cause is ignorance and craving (including greed)

The cure is reduction of ignorance and craving

The prescriptions are on the Noble Eightfold Path

<u>The Noble Eightfold Path</u>

Right understanding of the Four Noble Truths

Right thought – aims, will, values, motives, goals

Right speech – polite, kind, and considerate

Right action – being an example for others

Right livelihood – making a living the right way

Right effort – diligence

Right mindfulness – enduring attentiveness

Right concentration – mediation

The Five Negative Precepts

Abstain from taking life – nonviolence

Abstain from taking what is not given

Abstain from adultery and sexual misconduct

Abstain from lying

Abstain from intoxicating substances

The Five Positive Precepts

Compassion

Good vocation – no making or selling or weapons or intoxicants

Control of sexual life and pleasures

Telling the truth

Attentiveness, mindfulness, care

The Triple Refuge

The Buddha – but avoid idolatry

The Dhamma – the teachings of the Buddha

The Sangha – the community of monks

The Three Marks

Impermanence – everything is always arising and ceasing

Suffering – discontinuity, imbalance, dissatisfaction

Non-self – no enduring, separate self

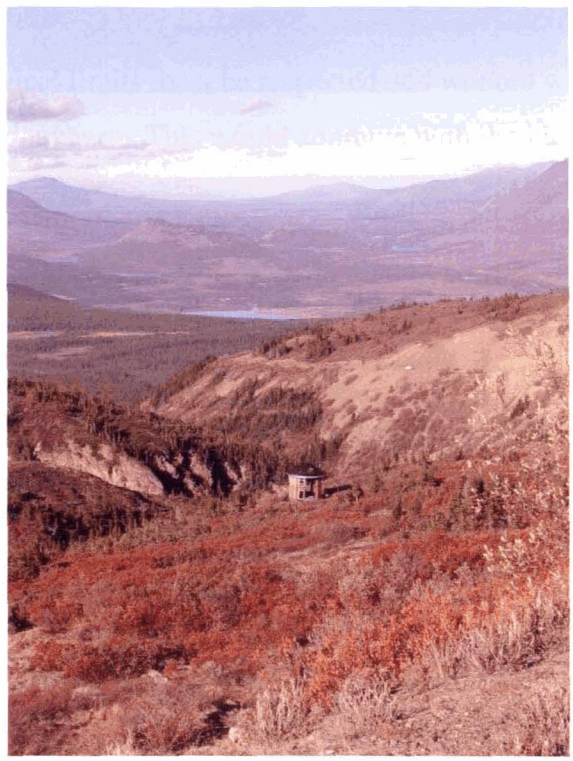
The Four Needs

Food

Shelter

Clothing

Medicine



Picture 16 – Looking south towards Buddhist temple on Montana Mountain.

I am not going to attempt to discuss the myriad of interpretations of Buddhism. However, Sponsel and Natadecha-Sponsel have noted that the core ideology could be combined nicely with McNeely et al.'s (1990) principles which were identified as an ethical basis for conserving biodiversity in the publication Conserving the World's Biological Diversity. These principles are summarized as (from Sponsel and Natadecha-Sponsel, 1993, pp. 76-78):

Unity – Humanity is part of nature, and as such is subject to the same laws. We all are dependent upon the uninterrupted functioning of natural systems, and human

culture must be based on respect for these systems. This would correlate with the right livelihood and the respect for life ideology of Buddhism.

Interdependence – The world consists of natural and human communities that are dependent upon one another, and the health of one depends upon the health of the other.

Limits – Ecological limits must be respected and worked with, and provide direction for human endeavours. This would combine with the idea of reducing greed.

Sustainability – This should be a basic principle in development. Personal values should be chosen to accentuate the richness and diversity of flora and fauna, and human experience. This means that our utilitarian values can be maintained for all time.

Diversity – This is an ethical and cultural outlook towards nature that is to be encouraged. Through it, we will promote relationships that respect and enhance the diversity of life, irrespective of the political, economic, or religious ideology that is dominant. This is a compassionate mode of being.

Rights – All species have a right to exist. The ecological processes that support the integrity of the biosphere and its diverse species, landscapes, and habitats are to be maintained. Similarly, the whole range of human cultural adaptations to local environments is enabled to prosper. Again, this reflects the reverence that Buddhism shows for life.

Responsibility – The well being of future generations is a social responsibility of the present (remember the 7-generation rule for First Nations cultures?) and therefore the present generation should plan accordingly.

Individual – All persons are responsible for themselves, and for the life of the Earth, and should have full access to education, political enfranchisement, and educational opportunities.

Buddhism operates within these tenants because it is econcentric. Sponsel and Natadecha (1998) argue that Buddhism, because of its ecocentricity, can help solve environmental problems for these four reasons:

* Environmental ethics are inherent in Buddhism;
* Many of the principles of Buddhism and ecology are in accord;
* There is a long history of mutualism between Buddhism and trees and forests;

In recent years a revitalization of Buddhism has started in Thailand, which has been linked to conservation (Sponsel and Natadecha-Sponsel, 1993, pg. 78).

Of course, we cannot all be Buddhists and I do not mean to suggest that this is the "right" way to be. But like many other religions, as a tenant, Buddhism is rooted in concern for the Earth. Unlike some other religions, its core values seem to have survived millennium. We could all learn something from this ancient philosophy. Thich Nhat Hanh (1990) has described Buddhism as the process of becoming aware, and that the Earth may survive, but we may not (Hanh, 1990, pg. 7) if we are not to start changing our ways. Chatsumarn Kabilsingh (1990, pg. 8) and Engel (1993, pg. 189) have both stated that because humanity and nature are so intertwined, the fact that nature is defiled does not bode well for humankind. The depletion of biological diversity is connected to the depleting of cultural diversity, which is leading towards the ultimate downfall of humankind. We are so alienated from our natural world that we are leading ourselves into peril. Buddhism advocates a nonviolent, gentle attitude towards nature (de Silva, 1990, pg.214), which could be crucial for today's world.

Picture 17 – Kea and Tillei playing slide on frozen stream at Montana Mountain.

The Dalai Lama, from the foreword to Dharma Gaia (1990), says this, which is an excellent summary of Buddhist attitude towards the Earth and the approach we should take towards it:

> The Earth, our Mother is telling us to behave. All around, signs of nature's limitations abound. Moreover, the environmental crisis currently underway, involves all of humanity, making national boundaries of secondary importance.
>
> If we develop good and considerate qualities with in our own minds, our activities will naturally cease to threaten the continued survival of life on Earth. By protecting the natural environment and working to forever halt the degradation of our planet we will also show respect for Earth's human descendants – our future generations – as well as for the natural right to life of all Earth's living things. If we care for nature, it can be rich, bountiful, and inexhaustibly sustaining.
>
> It is important that we forgive the destruction of the past and recognize that it was produced by ignorance. At the same time, we should re-examine, from an ethical perspective, what kind of world we have inherited, what we are responsible for, and what we will pass on to coming generations.

> It is my deep felt hope, that we find solutions which will match the marvels of science and technology for the current tragedies of human starvation and the extinction of life forms.
>
> We have the responsibility, as well as the capability, to protect the Earth's habitats – its animals, plants, insects, and even micro-organisms. If they are to be known by future generations, as we have known them, we must act now. Let us all work together to preserve and safeguard our world.

Despite many accusations of being a dominating, colonial religion, Christianity is also grounded in respect for the natural world. This is of particular relevance to those of Western cultures because it is the dominant religion. The Book of Joel in the Old Testament is perhaps one of its first discourses on the environmental situation. In it, Joel outlines a seven-point program of environmental awareness and action (Cunanan, 1994, pg. 15):

* awareness of the ecological situation;
* call to mourning, lamentation, repentenance (change in values and in lifestyles);
* organizing people along environmental and spiritual concerns;
* warning of impending judgment and destruction;
* restoration and renewal of environment and society;
* people's participation and roles in the transformation of society;
* political, economic and social components of the ecological and development agenda.

It is very clear that our society has not only been aware of the ecological crisis for a while, but also that changing it has been a part of our culture for a long, long time. I feel that once we start to change some global inequalities and the culture of war, we will be able to address the environmental crisis more fully. But until then, every small step (and by that I mean what I can do in my classroom) is of value.

The Book of Genesis also has, as a central theme, the goodness and beauty of the creation of God, and the terror that God will bring down upon us as an act of vengeance

if we do not treat our world with respect, in the form of a flood (Kassman, 1993, pg. 29). By not respecting our environment, we invited God's wrath. Abraham (1993, pg. 67) also notes that the Western-driven forces of capitalism are encouraging us to decimate our planet, and from this come the ruthless exploitation of it and all species. This is not exactly the moral code promoted by "love thy neighbour."

Abraham also calls for just relationships, which again is a principle advocated by the Bible – all are equal in the eyes of the Lord. Of key interest to him, though, is the uneven distribution and exploitation of natural resources, and how this mentality is irresponsible towards future generations. The idea of responsibility is a common one through all the religions I studied; that we are only borrowing the Earth for a while and we are beholden to leave it in as pristine a condition as we can. Abraham also calls for the alleviation of poverty through more ethical land treatment. He asks the Church to set an example by renunciation of greed, and to follow a monastic lifestyle that will be in harmony with nature (pg. 70). He goes on to discuss the World Council of Churches' 1990 convocation on Justice, Peace, and the Integrity of Creation, and the resulting covenant. All churches were to work for (pg. 73):

* a just economic order and for liberation from the bondage of foreign debt;
* the true security of all nations and people;
* building a culture that can live in harmony with creation and integrity;
* the eradication of racism and discrimination, on national and international levels, among all people.

What I found especially interesting about this covenant was the unstated belief that the social injustice experienced by many is tied in with environmental crisis, and that moral reasoning is part of a healthier, sustainable world.

Finally, Efthimiou comments that it is not the automobile (1993, pg. 93) that is the issue, but instead the mindset that accompanies its rampant misuse, or the use of pesticides. I feel that this is very pertinent. Like all religions, Christianity is urging us to act mindfully, the think about what we are doing, and to be accountable for our actions.

"Many Christians who profess a firm belief, without reservation, that God created everything and who may even oppose any teaching of evolution unfortunately seem not to see how their Christianity may have an impact on creation. They live and act in ways that may be moral and ethical, but they do not apply these principles to the earth and to the environment....To continue to profess the gospel of Christ, to read and live the lives of the saints and fathers of the church, to act in a profoundly ethical manner while at the same time supporting the system that is destroying the planet – this is the ultimate contradiction for Christians," (Efthimiou, 1993, pg. 95). Everything the earth contains belongs to God: its fullness and all its rich resources. So says Psalm 24. Christianity seems to be especially concerned with the continued hypocritical misuse of the Earth's resources; wise council from the dominant religion.

Picture 18 – Ancient Balsam Fir trees. These trees were the highest in elevation on Montana Mountain; 300 years old and not 2 metres high in the extreme climate.

Most teachers are likely well aware of the strong taboos against using moral language in the classroom, and a personal philosophy of mine is that you don't gain any converts through preaching. But there needs to be space for moral thought, ethical decisions, and critical thinking, and I think our present education system, through over-objectivity, has eradicated the place for these thought processes. But as Engel says, (1993, pg. 196) we need to develop a new world ethic, a global consciousness, which

includes conservation as the responsibility of every person. We do not live in a sustainable world and we need to question our actions, and judge them with a new spirit of mindfulness and morality. Thich Nhat Hanh (1990, pg. 35) urges us to think of ourselves as animals, and, like them, to deal with issues and concerns mindfully and gently. And Joanne Macy (1990, pg. 55) says that when you look at what is happening with the world, and its species, it becomes very clear that unless we have roots in a spiritual practice that holds life sacred, and encourages commune with fellow beings, we cannot overcome our problems. We have taught our children that life is not valuable, and we have extended that belief to include human life (as shown through unequal world poverty, and war); is it no wonder that there are as many global issues as there is?

Picture 19 – Pathways; Mount MacIntyre ski trails.

Looking through the lens of religion, we can see that the environment does have value, as does a way of being which treats it with respect. If you follow that mode of reasoning, it's easy to see why we should incorporate wilderness and environmental education into our classroom. "Nature seems to help us find that kind of calm, a serenity which allows us strength and presence," (Naess, 2002, pg. 21). A calm, strong classroom is one in which much learning takes place. Part of this, though, is to analyze how we live upon this earth, and why our society is so cold. What are we missing in our cold, objective classrooms?

The Norwegian philosopher, Arne Naess, believes that one of the things that is wrong with our society is our ability to live with wonder, and our beliefs in the unimportance of emotions. "Emotions are undervalued in our dealings with life, in spite of their central role in practically all social and private contexts," (Naess, 2002, pg. 20). "The path to the good life goes primarily through the emotions. Only secondarily does it go through the apparatus of reason," (Naess, 2002, pg. 44). It is not wrong to feel. Feelings give our lives colour. They give us memories, and allow us to personally interpret our world.

My counseling education taught me that one of the most important things in our life are good, solid relationships. We need to be able to form bonds with other people. If I think of the relationships in my life that give me strength, I find that it is through communication, reciprocal love, and other benefits that make my life worth living; that give me life value. Yes, I could go through life alone, but that is a desolate, colourless prospect. My teaching experiences have taught me that a good relationship with my students is the most important thing I can have as a classroom teacher. To be able to talk with them, and have them trust and respond to me, is more important than a clever wall display or immaculate unit. Relationships are the foundations of our lives, and the foundations of relationships are feelings and emotions. Yet they are unproven, and so much of them live in our emotional lives – the subjective world which we feel. As Naess says, emotions are fundamentally undervalued and I feel this is one reason why we feel so disconnected from the natural world, and each other. Yet, are emotions not knowledge? Do they not have value? If we remember an experience positively, is that not something we can take with us for future reference?

Picture 20 – Author's husband and dogs at old mine site, Montana Mountain.

These questions can be answered through religion, particularly Buddhism. Relationship and intimacy are valuable from a Buddhist standpoint. Buddhism, as stated earlier, is compassion (Monk, 1995, pg. 2), evolving of the mind (Monk, 1995, pg. 9) and the growth of loving and liberative relationships with all others, with all connected (Monk, 1995, pg. 11). The Dalai Lama believes that the purpose of our life is to seek happiness (Cutler, 1998, pg. 13). But he feels that one of the things that is lost in modern society, and that is making people unhappy (and therefore unfulfilled) is a lack of intimacy. In the book The Art of Happiness, Cutler (1998) quotes the Dalai Lama as saying: "You can relate to them (other people) because you are still a human being within the human community (speaking about the Chinese). And that human bond is enough to give rise to a sense of worth and dignity. That bond can be a source of consolation in the event that you lose all else," (Cutler, 1998, pg. 31). He goes to one quote His Holiness as saying that "universal compassion", that ability to recognize one another as worthwhile, living, and with rights, is beneficial for the individual in the long run, and will make us strong (Cutler, 1998, pg. 116).

So the Dalai Lama, a person who has suffered a great deal and lives in exile, with his people, believes that with compassion, and intimacy – relationship with other people – you can live a happy life. In effect, he is saying the same as Naess by saying feelings

and emotions are the most valued part of life. That is very profound. I remember reading of people in India and other countries have a higher quality of life than North Americans – because of ideas such as these. If our society was happier, and healthier, than systems theory would show us that the schools would be happier as well – and more productive.

While it is very pertinent to note that human relationships play a crucial part in our well-being, what about our relationships with animals? Weston (1994) is another theorist who does not believe in the "doom and gloom" prophesizing as part of being an environmental activitist. Rather, he feels that the present crisis is because "we have lost the direct experience with the world, and we need to re-experience it directly," (page 4) and that "our loss of vividness, vibrancy, and aliveness of the natural world is the crisis," (page 8). We need to see ourselves as part of the world, in other worlds. This would lay the foundation for preserving our world, as we know it.

I am the proud owner of two (fat) dogs, Kea and Tillei. Kea has been my constant companion for 7.5 years, and Tillei is a new addition to the family and has only been with us since March. My husband is away most of the summer, and my dogs are my most frequent companions. I notice a change with my emotions when Kea and Tillei are not here. When my dogs are home with me, I feel confident to go out on my own, hiking or visiting, and I laugh quite a bit. I also talk to my dogs. When I am here by myself, I am nervous, depressed, and quite irritable. Animals are in my space all the time – not only my dogs, but also birds, and a cheeky squirrel who stares in the window – and I find it very soothing to have them around. Despite little human companionship, I am not lonely.

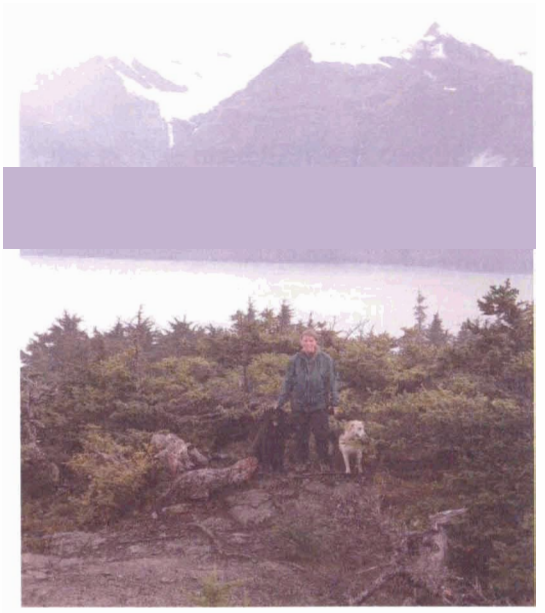
Picture 21 – Squirrel in pine tree.

Many people are not as fortunate as I am though. A good many people are "raised with only a passing acquaintance with other animals, (and) cannot imagine any real relation of trust between them and animals," (Weston, 1994, pg. 25). Relationships built on trust and compassion are of real value to us – should it matter who, or what, they are with? How can we explain convicts, who upon running a cat shelter at the penitentiary in Vancouver, feel less angry and more able to love? (Global-BCTV news broadcast, August 2003) "It is perhaps not totally utopian to suggest that expanded concern for animals, a concern crossing geopolitical barriers, may lead to expanded concern for other human beings in countries not one's own, for a lovely dialectical reversal of the traditional wisdom preached by St. Thomas Aquinas and Immanuel Kent, suggesting that concern for animals is merely disguised as concern for human beings," (Sterba, from Rollins, 1995, pg. 127). So to be concerned for any living thing is important; Saul (2001) feels is we cannot imagine another, we are insane (page 47) and also that humans cannot be set apart from the rest of the world (page 194).

Pets in the classroom tend to have a wonderful effect. Students tend to care for them as a group, and see their welfare as something they all need to be involved with. Whenever I have brought Kea and Tillei on a class trip, the students seem to be calmed, more centered. Students who aren't around animals observe them, and are drawn to them, and also seem more focused.

The notion of fun, as well as emotion, has its place too. Naess argues that this too has its place in the classroom. Just as Taoism states, life is supposed to be enjoyable. What is wrong with carrying this idea into the classroom in order to make the students enjoy their time there? "We must pay greater attention to the emotional tone in the course of education, a sense of pleasure ... If a pupil feels that something in a subject is fun, then let him have much more of that something. Proceed so slowly that the overwhelming majority of pupils have the wonderful feeling of mastery. Then one can go more deeply into the subject because it is fun to learn," (Naess, 2002, pg. 154). If we can engage students, and have them enjoy school, we will have happier, more productive citizens. But they need to be motivated, and feel successful.

Environmental education is a value, and is something intrinsically important to us. Coupled with that is a view of education as gentler, more holistic, and fun. Engaging students with their feelings, and emotions, will means students will stay focused, and will learn more. But how are we to do this? The next section of this essay addresses this idea.



Picture 22 – Author and dogs at Mount Riley summit, Haines, Alaska.

Earth

Earth is that part of education which grounds us, and is logical, and provides rules and ethics for living wisely. It provides the basis for looking at issues and questions in a calm, rational manner, and using set principles or rules, the framework for addressing life using common sense. It is the framework through which we develop life's guidelines.

Part 2 - Environmental Ethics and The Six Principles of Environmental Education

Saul noted that regular people need to live according to ethics, and that ethics needs to be an everyday activity. If we do not do that, ethics are nothing (Saul, 2001, pg. 87). You cannot discuss the value of environmental education, without acknowledging some of the underlying principles and ethics. Morality seems to be a difficult subject for education to address, but is pertinent for health and happiness. Rules and guidelines are not evil. Ethics, and ethics taught through school, which preserve our world and make us think about the process in which we do things, and how it will affect the earth's complex systems of relationships, are a just and fine thing.

I have discussed how environmental education has value, and while it is important for us to enjoy life, and have worthwhile relationships. However, I have not addressed why it is so crucial for us to reform the education system so that it includes environmental education. Orr (1994) says that "we are becoming more ignorant of the things we must know to live well and sustainably on the Earth," (page 11). In other words, our compartmentalized educational system has broken the world into answers, not questions, theories, abstraction (Orr, 1994, pg. 8) so that we are becoming more ignorant and less able to live well. Orr feels that the rapid decline of habitat is one reason to reform education. I would add that societal discontent with schools, student violence and suicide, divorce, and generally low educational levels and disinterest in the world (not just low test scores; some students really don't seem to be able to think) are also equally important reasons for change. As a connection to the natural world has been shown to have value, why shouldn't reform it with the earth in mind?

Arne Naess' Deep Ecology movement has developed eight principles as part of their platform. Together, Naess and Sessions propose that:

* The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth; intrinsic value; inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.

* Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.

* Humans have no right to reduce this richness and diversity except to satisfy vital needs.

* Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

* The flourishing of human life and cultures is compatible with a substantial decrease of human population. The flourishing of nonhuman life requires such a decrease.

* Policies must therefore be changed. The changes in policies affect basic economic, technological structures. The resulting state of affairs will be basically different from the present.

* The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.

* Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes.

While some of this may seem extreme to many, I feel that it is crucial that we become more aware of the Earth, and acknowledge its' importance in our governance of our society. That includes public education.

Fawcett (2000) comments that if we want to develop any sense of intimacy and compassion for the natural world, then we need to have direct, sensory contact with it. And, if we are going to make rational choices in the areas of environmental change, then we need to make these changes according to as large a knowledge base as possible. Through these experiences we will change our attitudes to be morally based, and not just driven by consumption. She advocates the use of narrative ethics; the telling of stories about the environment in a shared setting in order to solve the dilemma.

Orr proposes that we rethink education keeping these principles in mind (1994, pp. 12, 13):

* All education is environmental education, and teaches us what we need to know to live responsibly.

* Education's goal is mastery of one's person, which would involve people being aware of their strengths, weaknesses, and having a healthy self-concept.

* All knowledge must be used responsibly. This would mean that you have to study the impacts of what you are doing; we don't live in a vacuum.

* Knowledge is not useful until we know its real effect. No more theories or abstractions – how can we use what we know? Or if we don't know its effect, we don't use it anyway.

* We need to model examples. I know in my own class I have to be fair, and if I am not, I had better be ready to apologize. Once I am kind and accepting, my students invariably follow.

* The process of learning is important, but we need to have real situations, real experiences, in the natural world.

Orr feels that formal education is deadening the sense of wonder (1994, pg. 24). Naess has commented upon enthusiastic outdoor students, pursuing biology in college, then emerging at the end of their studies hating the topic. Our system of obscure facts, learned in isolation is not working. People feel fragmented and lost.

More recently, the Canadian government published a paper highlighting the need for environmental education, and giving its support to the cause, in 2002's Framework for Environmental Learning and Sustainability in Canada. The paper looked at the "big picture", or the long-reaching effects of environmental education, and how we need to foster "wonder and awe" (page 9) in our schools, as well as incorporating traditional knowledge and a sense of place. The document also focused on the need for sustainable living. While this is a very substantial improvement, there are have been other efforts made at the provincial level on incorporating environmental education into the classroom.

In 1995, the B.C. Ministry of Education published a document titled Environmental Concepts in the Classroom: A Guide for Teachers with the aid of several

prominent environmental educators. Its mandate (to paraphrase) stated that there is a growing concern about the state of the environment, but also that we could no longer look to science to solve our problems; that we must change our way of life to improve the environment – a responsible attitude in caring towards the earth. "Integrating environmental concepts within all subject areas promotes this change in attitude by providing students with opportunities to experience and investigate the relationships linking individuals, societies, and natural surroundings. Education about the environment provides students with opportunities to learn about the functioning of natural systems, to identify their beliefs and opinions, consider a range of views, and ultimately make reformed and responsible choices," (Ministry of Education, 1995, pg. 2). The environment is used to teach students critical thinking. They use morality to make wise decisions based on beliefs, values, and ethics.

For the next part of this essay, I would like to discuss this mandate in terms of environmental ethics. What can we do to change our present state? I have proved that the environment, and environmental education, is to be valued intrinsically. How can we go about adapting and changing our education system in order to do this? It would not be productive, however, to instill a feeling of fear. That encourages feelings of hopelessness, which is unproductive. Rather, what I would like to investigate is how we can be proactive in our efforts to change our society.

Environmental Concepts in the Classroom: A Guide for Teachers developed six principles and ethics designed to guide all educators in incorporating environmental awareness into their classrooms. These principles are:

There should be direct experience with the environment.

> Direct experience with the environment, both individually and in groups, are an important and vital way to learn. Such opportunities must be provided for the studies to be relevant, because they help provide students with a deeper understanding of natural systems and the impact humans have on these systems. (Uzzell et al, 1995, pg.179).

Note the word used is "studies", which implies that this information is note just applicable to the subject of science. We must look at being responsible to the environment as a whole, not a compilation of unconnected parts and topics.

There are a wide variety of ways that the classroom teacher can approach this. There are the more conventional outdoor sports, such as hiking, biking, and cross-country skiing. All of these give the student direct experience, but care must be taken to have students observe the environment as they partake in it. Teachers can also have their students do pond studies, depending upon the availability of ponds, flower samples, or even learn animal tracks.

Orr (1994, pg. 120) suggests the farm experience is an excellent way for students to learn about the environment, and what benefits we have from it. He also states that traditional farming practices teach students discipline, physical stamina, frugality, self-reliance, practical competence, hard work, cooperation, and ecological competence. Unfortunately, to truly learn from a farm students would have to be there year-round, so a school placed on the farm would be truly ideal. Baring that, it would be a good place for a year-long project.

Weston advocates a garden (1994, pg. 123), which would be a reasonable quest for a teacher to embark upon. He feels that a garden is a bridge between the "more-than-human" and our world, and a place which allows students to act upon it, and readily see the results of their action or inaction. The very act of doing it has an effect upon us as well. Pollan (from Weston, 1994, pp. 126,7) felt that a gardener's outlook was local, and accepted local viewpoints and expertise; taught people to accept uncertainty; and are active places. They allow students to learn the rhythms of life, and work with them. Raspberries bloom late summer, and if you don't take care of them, they might not bloom at all. But if you tender them, you can grow a bountiful crop. Wouldn't that be a wonderful skill for a human being?

The most important facet of this is to get students out there, getting dirty, being part of the natural world. It is interesting to note that First Nations people had no word

for wilderness (Weston, 1994, pp. 71,72, and 85), and yet our society sees it everywhere we go. There is an astonishing diversity of life to learn from right outside our door; yet we learn nothing about it if we rush past it, in climate controlled-cars. Have students use all their senses to describe their outdoor experiences, and to have them be truly in it, to make them feel alive.

Wilson Fromm (Weston, 1994, pg. 132) said that biophilia, the love of things that are alive, is a sign of mental and physical health. The only way to develop biophilia is to go outside. We are of the earth, and therefore have an affinity for nature; in fact, it's unhealthy if we don't get out and explore.

Students should learn about the many complex systems that the Earth depends on and is a part of. Environmental action "examines the complexities and interrelatedness of natural systems, and how humans interact with these systems. It also looks at human-created systems," (1995).

There are many, many systems that make up the fabric of human society, but one that many people forget when they think of environmental education is the ones that we create, and the many direct and indirect ties that they contain, and how they relate to the natural world. This provides scope for looking at how all of our systems are dependent upon the natural world. Our economy must be part of our world, but it is not the only part. We need to be more mindful of how it impacts the lives of, and other systems in, our world.

An interesting activity is to have students do a study on their community – who lives there, what they do, and how they live. Students could also study the effects of multi-use trails, so they understand the myriad of people that use our communities' services, how they use them, and where they come from. That way, students will see how and who interacts with our environment locally.

Picture 23 – A multi-use trail; the White Pass railway shares the same route as the Chilkoot Trail for trekkers.

Students could also study the use of a local pond or steam, both human and non-human, and over a school year, see what changes occur.

Responsible action is a learning objective and outcome of environmental education.

> It is vital for students to decide what constitutes responsible action towards the environment, and to practice it," (1995). Teachers can help instill this in students through discussions on the consequences of both action and inaction, discussions on how our belief systems (physical and cultural) impact our actions, and how organizations that regulate, influence, and govern human behaviour impact on our environment. But they need to look at all sides of an issue, and talk to people, and through discussion, come to a conclusion. "Imagination is crucial …Facts are (but) the building blocks of rationality, united by imagination, ethics, common sense, and reason (Saul, 2001, pg. 296).

They need to learn, discuss, and conceptualize, and use their entire prowess to do so. Only so will they deeply learn.

There are many consequences to our actions with regards to our environment. We need to develop a sense of environmental awareness.

> Studies about the environment provide opportunities for students to explore the environmental impacts of decisions and actions made at personal, community, societal, and global levels," (1995). Much of this topic deals with awareness that the environment will be here long after we are, and that we have an obligation to the future to leave a world that is fit for living. "Environmental education has the job of explaining environmental processes. Children, tomorrow's leaders, need to learn the importance of the environment, (Uzzell et al, 1995, pg. 178).

The most effective way for students to learn environmental education is at the local level, though. By taking real issues in their community, where they can visit, talk to people, and learn the cause and effect relationship, students understand the importance of thinking about their actions, and their effects. They can see the results. "Think globally, and act locally" is definitely effective (Uzzell et al, 1995, pp. 175, 179).

Students need to foster their own sense of aesthetic appreciation for the environment.

"Environment education helps students to develop a sense of respect and appreciation for the natural world resulting from study, physical challenges, and other experiences in nature," (1995). The document states that the environment can be a tool for personal fulfillment, and growth; that through it we can reach our full potential. The document also refers to the importance of environmental art: what it means to the religions and cultures it pertains to.

This is the point which I feel directly supports the need for this essay. How much would it cost to build a person? How many of us would like to think we our cost would be more than materials? How much is a dolphin worth? Why do we always measure animal or plant value in terms of economic benefits? We need to look at the being's relationship to the systems they interact with – all of them – to see the beauty of their intrinsic worth.

Aesthetic also means beauty and enjoyment. A fun way to use this idea in your class is to do "found art". Students collect natural materials, and create something from it, or use these natural materials with something else in order to create something with it. Nature photographer Andy Goldsworthy has created a series of books looking at natural

objects (trees, stones, leaves, ice) made into arches, walls, out in the Scottish countryside. His books would be a useful starting point for this sort of activity.

Students need to develop environmental ethics.

"Supporting students to take responsible action requires an examination of values," (United Nations Environmental Program, 1989). These are not just values for an environmental education class. Rather, much as the environment is all around us and is incorporated into everything we do (the air we breathe, the ground we walk on) environmental education should be encompassed by all of our education topics.

Developing environmental ethics, or a set of rules for the person to live with in regards to the environment, is a complicated process. Most wilderness, at one point or another, is now seen as an object of fear, or a resource. People are either scared of the monsters that live in the forest, or they were contemplating how to make money from the trees. Wilderness, though, can be seen as something that can mold character (Van De Veer, 1986, pg. 136). So we need to develop an ethic – a way of being in it and with it. It should include these concepts:

* concern for the welfare of living things;
* the environment is an entity possessing inherent worth;
* a principle of intrinsic value which states that, regardless of what kind of entity it is in other respects, if its part of the earth, it has value (Taylor, 1986, pg. 170).

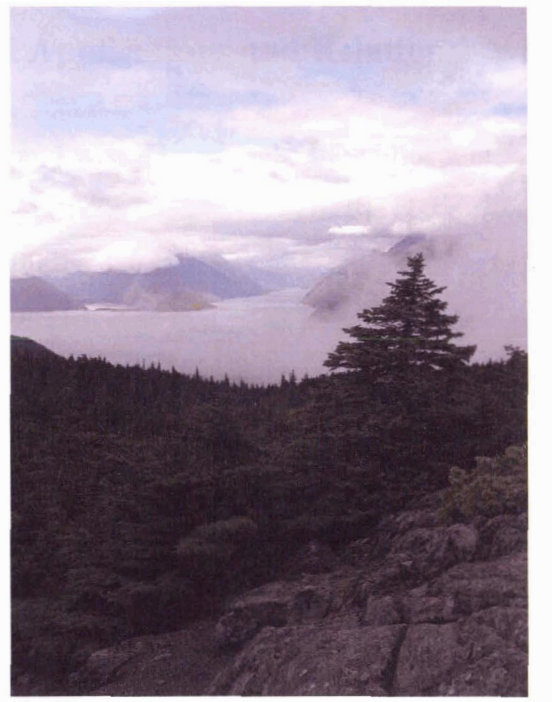
Finally, Environmental Concepts in the Classroom: A Guide for Teachers includes these ideas for student discussion on environmental ethics:

* Actions are generated by belief systems or sets of values.
* Value systems can change over time.
* The formation of values occurs in stages.
* How the environment is affected by specific actions is a scientific question, but the choice of what action to take is a question of ethics and of cultural, religious, and/or personal values.

- Human quality of life is influenced by environmental quality.
- Humans must recognize their responsibility to future generations.
- Mass media coverage and perspectives influence societal attitudes towards the environment.
- Print and electronic media have commercial implications and contain ideological and value messages that have societal and political implications. (1995)

Note in all of these the emphasis on the human relationship with the environment. Our internal values set a standard of view, which we use to act upon the world. Many things can alter our values and worldview, but through it all there is the great "other" which must play a role in our thinking, or we let down a good deal more than just ourselves. Students need to discuss this to enact "deep" thinking and understanding.

Picture 24 – Road up Montana Mountain.



Picture 25 – Looking towards Haines, Alaska, from Mount Riley.

Water

Water is in the earth, in the air, and even, through oxygen and suppression, has its connections to fire. It is in every living thing on Earth. It flows, and touches all geographical and physical points, and connects us all to one another. It is necessary for life. Just as water is inherent in all life, and touches everything on our planet, so it will be used to tie the threads of my essay together.

Part 3: Practical Applications and Relationship in the Classroom

In this final section, I would like to take the philosophies I have discussed and apply them to the structure (including physical) of the classroom, some techniques for developing relationships in the classroom, and discuss four examples of the wilderness classroom. Orr (1994, pg. 115) says that good learning places are places that feel good to us. They should be of human scale, should have nature in them, interesting architecture, natural materials and lighting, and white sounds. This will encourage ecological awareness, responsiveness, and civility, by bringing to the forefront our innate affinity for life.

However, you can't always change the school structure that you're in. While it is a simple manner to have a class pet or plants in your room, there are some other ways to have a complete integration of the senses, without building a new school. Weston (2003) has some intriguing ideas on incorporating wildness into our classrooms, which will promote empathy and connection:

You can eliminate a human-centered approach to your room by having pictures of wild animals (not domestic) on the walls (page 2). Another decorating idea is to use natural items, such as flowers, rocks, skulls (page 10 and 11) that are irregular in shape and carry a story with them. Make sure to use your five senses (Weston has his students eat flowers) with your students to really integrate these items into your students. Have a touch board, or a set of boxes along one wall where students can play Guess the Object.

Weston describes some exercises on touching (pages 8 and 9) which force people to acknowledge their bodies, which are, after all, tangible proof of our otherness.

Open the blinds (page 10). I recommend not using the lights most classrooms have, but instead using natural light.

Bring in animal artifacts – casts of prints, fur, or even just pictures or life-size diagrams.

Bring in your own pets. My dogs are both well-behaved on hikes and other expeditions, and the students make a special point of requesting them. I have spent a good deal of time training my dogs to be "safe" around children, and have found that students were more likely to express empathy for other animals after being exposed to their teacher, who was kind to her own animals in their presence.

Picture 26 – Kea in leaves.

The reasoning of this is simple. Our classrooms are artificial, separate from the natural world. "Ongoing work has no place there," (Weston, 2003, pg. 5). But perhaps if we incorporate wildness into our classes every day, however unstated, our students will begin to learn to accept it. If animals are incorporated, it would fulfill the mandate proposed by this paper.

Picture 27 – Tillei in leaves.

Fawcett (2002), from York University, has studied a number of animals in rather innovating ways. She studies where biology meets the social sciences, with a focus on animals as individuals with their own rights. Her research premise is that animals have both inner and outer lives, and focuses upon the relationships with children and animals.

She feels that one way to develop stronger inner-species bonds and empathy is to look at the stories of children. "Children's own stories are rarely heard, and as adults we can forget what we once knew," (Fawcett, 2002, pg. 124), and that young children demonstrate a level of biophilia we negate, and lose. Fawcett took examples of three animals – bats, raccoons, and frogs – and had school children from kindergarten to grade five narrate ideas about friendship across species, and concern about the animals state and freedom. She had her "subjects" discuss what they knew about each animal, and what they knew to be beliefs or fears about each animal. Then, Fawcett had her subjects tell a story with them interacting with the particular animal. Her studies found these commonalities:

1. The grade 5 students' stories were concerned with fear and harm between the two species, while the kindergartens' stories focused more on friendship and reciprocity;

2. The older students' stories reflected popular misconceptions about the animals;

3. The older students' stories had chasing in the story lines, and no direct experience with the animal, while the younger students reflected more contact and even conversation (Fawcett, 2002, pp. 130-132).

What changes in our lives to have students, only five years old, show fear between animals? Do they learn this in school, on television, or from adults? If you believe that biophilia is a sign of mental health, and it is a value to love the natural world, then this is a very disturbing trend. Fawcett states that part of being a "good Western citizen is to kick any feelings of anthropomorphism out of your head," (Fawcett, 2002, pg. 134) which is very disturbing in and of itself. She goes on to state that Western culture is teaching students to divorce themselves from animals, whereas that is harmful because the world would not be alive if there were no animals. It's healthy to love animals – children know this. We robotically and mechanistically, have lost this value.

How could you change your student's ideas about animals? While I don't think there is a malicious plot to separate ourselves from the natural world, I do believe many of the policy makers are misinformed. They haven't fully appreciated how important it is for us to learn to be in our natural world. I would begin to teach biophilia by instructing them about a particular animal – factual information. I would also bring in as many videos as I could from the library, from such organizations such as *National Geographic.*

After that I would have students become the animal. It is not a wise idea to bring students into direct contact with some animals, for obvious reasons. However, there are a number of things you can do to make students think about animals with their emotions:

a) Read/write stories about that animal. In her studies on children's relationships with animals, Fawcett has students write stories about their adventures with bats, and include themselves in it in order explore "the notion of the 'other' across not just class, race, and gender but across the species boundary", (Fawcett, 2002, pg. 133). Anne Bell (2001), after students had visited a wild space they were visiting in the school area, would have students tell stories about their encounters, and even illustrate a class book (2001, pg. 219). You could do this easily, with any animal as the topic. Or, you could

read a story or newspaper article about a bear, and have the student's retell it from the bear's perspective.

b) Many parks have interpretive centers, which can give guided tours on bear sites. At Kluane National Park, rangers will escort you to spots where students can see claw and rub marks on trees, and pick bear fur. This way, students are in the environment with the bears – just not together – and they can see for themselves that bears have lives, just like them. Jardine (1998) found that when he went into the places where birds lived, he learned so much more about them than just reading a book. "Such knowledge lives in the living, ongoing work of coming to a place, learning its ways and become someone in such efforts, someone full of tales to tell, tales of intimacy, full of proper names, particular ventures, bodily memories that are entangled in and indebted to the very flesh of the Earth they want to tell," (Jardine, 1998, pg. 78) Talk about the experience, or have students write about it in their field journals.

c) Role plays can be a fun way for students to actually become the animal. However, you should do this outside to make it real for the students.

We can also teach deep understanding through stories. The importance of storytelling as an emphatic learning tool cannot be overlooked. When used properly, storytelling brings in the imagination (Egan, 1986, pg. 5) and can be used to teach both concrete and abstract principles in fantasy, by allowing the mind to exercise, and connect previously disconnected ideas (Egan, 1986, pg. 13). Units could become merely a set of stories to be told (Egan, 1986, pg. 22). Children are, as anyone who has worked with them knows, very good at it. You could use the following technique for students to tell you about how a puddle become a raindrop, or how a bear gets its' lunch.

Identify what is important about the topic, and why children should know about it, what will matter to them about it, and what is affectively engaging about it (Egan, 1986, pg. 42);

Find binary opposites, which catch the importance of the topic (Egan, 1986, pg. 44);

Organize the content into story form, which will dramatically embody binary opposites (an antagonist and protagonist), in order to provide access to the topic (Egan, 1986, pg. 45);

Discover which content best articulates the topic into developing story form (Egan, 1986, pg. 46);

And for the conclusion, what is the best way to resolve the dramatic conflict inherent between the binary opposites? What degree of mediation of those opposites is appropriate to teach (Egan, 1986, pg. 51)?

Just as you have proven your mastery of a topic if you can effectively teach it, students know a topic if they can tell you a story, or do a role play or skit about it. By allowing students to use their emotions to learn, and get involved with the topic on a personal level, they will have learned it deeper than just by reiterating facts.

One topic that has not been addressed in this essay is the idea of teacher wellness. Just as for a healthy marriage, you need two healthy individuals, for a healthy classroom you need to have a healthy teacher. There is no doubt that our jobs are getting more complicated and demanding, yet we still have to be able to do them calmly and rationally. We cannot develop a healthy classroom, and have a relationship with our students, if we are unhealthy ourselves and unable to relate, or respond to, our own needs. We have so many roles, and so many jobs to do, that teachers wind up making sacrifices - many times in their own personal life, allowing their fitness and families to suffer. This leads to stress and related illnesses. None of this should be any surprise; yet how can teachers not become workaholics when there is so much to do? I would like to suggest that perhaps we need a new, more tolerant idea towards our classrooms, our students, and ourselves.

Weston (1994) explores a new approach to connecting the human world with the rest of natural society. One of his central themes is that, as a species, human kind has lost a connection with the natural world. Our society fails to see animals, plants, as separate worthwhile beings, worthy of respect and as possessors of their own unique communication and culture. In the chapter "Coming to Our Senses" Weston speaks

about a number of concepts that may aid humankind in rebuilding the bridge that connects us to the natural world. One strategy, as previously mentioned, that Weston proposes is the idea of gardening. He quotes editor and gardener Michael Pollan as describing gardens as a "middle space" between the utterly humanized and the wild, a more-than-human space in which we act and are acted upon (Weston, 1994, pg.123). I feel that if we use these principles of gardening for education, its gentle ideas on cultivation could be used for a more holistic educational experience.

Weston comments that "(W)hat you learn in a garden is subtle and not necessarily clear from the near side. It is probably harder to recognize than the values of quiet zones or earth-rooted buildings. But it is also crucial. And here too, it turns out, we are speaking of "contact", a possibility that is modest and once again right next to us," (Weston, 1994, pg. 123). One concept and theme, addressed by many in the environmental education movement, such as Orr (1994), Merchant (1992), and Curthoys and Cuthbertson (2002), is that we have lost all sense of harmony and relationship with the natural world.

Picture 28 – Trail at Mount MacIntyre.

However, there are several connections that can be made from the idea of humankind's fall from grace (the natural world) and the loss of meaningful education that many people see happening in our schools today. Weston proposes a number of ways

that gardening can be used to build a bridge with us to the natural world. I would like to take some of his principles and discuss how teachers, like gardeners, could use these ideas to cultivate and nurture ideas in young minds.

> Good gardening requires attentiveness. Attentiveness to the nature of the soil, to the smallest particles of place....Attentiveness to the patterns of the weather, planting crops with different could tolerance at the appropriate time in the spring, watching the frosts in the fall and the heat and rain in summer...Attentiveness, finally, to the needs of whole communities of living things, finicky and at times demanding: only at the end does the garden, quite literally, "bear fruit, (Weston, 1994, pg. 123).

Teaching requires a great deal of attention to detail. Not only with the paperwork, but also with the students. The folks who you are instructing all come with unique needs, ideas, and values, and as a teacher, it is important to acknowledge and validate these. One child, upset in your room, is definitely not learning anything, and could in fact become disruptive. By working with the student, you could perhaps aid them in solving their problems and in becoming a part of the classroom community.

You also need to have an awareness of what is happening in the greater community, what sorts of outside influences (such as Christmas, special events, or even tragedies) that could be impacting upon your students. When you try to create a balance in your room by acknowledging and working with the whole child, and the whole community, you may be able to teach. But don't forget that it does take a long time. I keep portfolios of student's work in September and look at it throughout the year (and share it in June with students) to remind myself of how far we have come.

> Gardens require care, on their own schedule and their own great cycles: welcome, ground preparation, planting, watering, weeding, harvesting, farewell, and preparation for winter. Growing two and even three crops of certain foods complicates the cycles and the calendar of imperatives still further. The very cadence of life is more-than-human: "a beat in step with the seasons, (Weston, 1994; quote from Dustin, 1991, pg. 123).

The first part of this quote is self-explanatory. Students have their own cycles of care, and will need different types of attention in September, when you meet them and

establish both a relationship and a rapport; December, when they are both tired and excited; February, when the days are short and have been so for a while; and June, when they are getting ready for next year, summer, and are working with little sleep, especially in the North.

The second part of the quote is a reminder to work through one idea at a time, and to do it well. Don't try to cover all topics in one day. Give students time to immerse themselves in one theme or topic, and take the time and the effort to do it thoroughly. Accept that you cannot teach everything.

> Even the best of gardens remains vulnerable to the extremes, to Earth's unpredictable forces...You don't need a retreat to the wild to feel nature's power. Holding the season's first ripe tomato in your hand, you feel a little as if some kind of gem fell into your hand, utterly improbably, out of some enormous heavenly contention, most of which you remain unaware of. Getting anything at all is a humbling gift, (Weston, 1994, pg. 124).

Many teachers, myself especially, feel pressured to be the doctor, the lawyer, the counsellor, and the Native chief. We cannot be all of these things to all of these people. There are so many other pressures, and influences ("nature's power") over these students that we cannot be all things to some people. There will be some students that we cannot reach, and as difficult as that can be, we have to accept it. But, one the other hand, we will reach some students, and be a positive influence in their lives. Indeed, most of our students will, if you take time to teach them and form a positive rapport and relationship with them, learn something from us. Focus on your successes. We need to learn from our mistakes, but not carry them forever.

> Still, the overall feeling, gardening, is not that the Earth stands at a distance, unpredictable and violent. Buried in dirt and horse manure, I recognize a richer truth. I am, again, *part* of the Earth, in the simplest and most concrete way, (Weston, 1994, pg. 124).

One of the most enriching experiences you can have as a teacher, I think, is to learn from your students. Not only facts and ideas, but also you can learn how to interact with people on a different level. Engage your students in dialogue, which allows for

"sharing information, exploring ideas, (and) an openness to emergent properties that flow from creative interactions, and the freedom not to be an expert," (Curthoys and Cuthbertson, 2002, pg. 224). Allow yourself to learn. Allow students to be creative, and express their own unique views, so as to see another perspective on a concept, issue, or even life. We are part of the learning environment, and while a key element, we are not the only component. As teachers, we sometimes forget that we are not the only experts in the classroom.

> And time. The domestication of plants was the beginning of settled civilization... Everything we now eat is a product of long practice and experiment, even world travelling and disaster, (Weston, 1994, pg. 125).

In that quote, substitute "eat" for "learn". There are two meanings to that quote. First of all, there have been countless events in our history from which to learn from. Second, and more to the point for teachers, we do not have to reinvent the wheel for every lesson. As Fullan has stated, we need to establish a professional community from which to draw upon for ideas, support, and lessons. Use your colleagues. Share ideas.

"Weeds are so versatile and familiar that Euell Gibbons became famous for insisting, plausibly, that American cuisine take advantage of them," (Weston, 1994; from Gibbons, 1962, pg. 126). Many teachers struggle with the fact that there seems to be a lack of academic emphasis in our society today. There is no ideal classroom. However, In feel if we try to branch out with how we measure academic success - is this meeting an arbitrary level of academic achievement, or is it growth and development? I also feel we do not look at the seven forms of intelligence, and try to incorporate different learning styles into our classroom. Perhaps the "weeds", or students who, by traditional standards, are less academically inclined, will have a chance to grow and "blossom", and be seen as worthwhile and important.

> Pollan draws what he calls a "new environmental ethic" out of the gardener's practice...First, a gardener's outlook is emphatically, persistently, necessarily local. It gives different answers in different places, instead of imposing some single overall model. Discovering them may take many generations, and they always need renewing. "Heirloom" (nonhyrid) seed growers encourage their

> customers to seek out neighbours and "old-timers" to help recover the local gardening knowledge that is being lost, (Weston, from the *Seeds Blum* catalog, 1994, pp. 126, 127).

We need to, as Curthoys and Cuthbertson have stated in their article "Listening to the Landscape", develop more local curriculum and draw upon more local resources (2002). For the purposes of their article, this would allow students to develop a sense of pride and place, but I also feel this would make what you are teaching far more real, and far more relevant. The curriculum and issues in Vancouver, while showing some similarities and having some ideas to borrow, should not be the same as the Whitehorse version. Whitehorse students will be able to relate to the needs of their community far more than the requirements and issues of Vancouver students.

The "heirloom" idea is also important for teachers. Many times we will try to present ourselves as the expert, but that is not always pragmatic. Bring in experts on particular topics, and draw upon community resources in order to better present lessons in the classroom. Engage the community in dialogue with your students.

> Gardeners also accept contingency, tolerate uncertainty. You expect wild variations of rain, climate, insects, sun within which you seek what regularity you can, (Weston, 1994, pg. 127).

There will be changes and events from the greater community that you cannot plan for or control, but you still have to work with these situations. A good example of this, from my personal experience, was the terrorist attacks on New York on Sept. 11. The worry and the interest that my class had about these events, and their heightened interest in world events, made for a very exciting year theme of current and world events, and heightened interest in multiculturalism. Yet it would have been very easy to ignore or gloss over these events, and not open up the classroom for research and discussion around them. I feel that my students would have been worried about international events, and had no way to absolve their worry through learning. They may have been distracted, making learning around about other topics difficult.. The immediacy of their concerns also made the learning material very relevant.

Gardeners are unromantic, (Weston, 1994, pg. 127).

By this, Weston meant that they are not idealistic places of beauty; that there is manure, dirt, pests, and other problems in them. Neither is the classroom. There are too many other influences upon it - society, the community, and the student's issues - for everything to run smoothly. If a teacher cannot accept this, and work with distractions, they will be setting themselves up for heartache and stress.

Picture 29 – Looking west on Montana Mountain.

> Gardeners are active … and optimistic, in the sense that gardeners must believe that their impact on nature can be constructive, (Weston, 1994, from Pollan, pg. 127).

As teachers, we must be active learners ourselves. As Fullan (2001) states, we must engage in professional development and keep our minds active. We cannot allow our methods and lessons to become repetitive and stagnant, and the expect our students to become excited about what we are teaching. We also must believe in what we are presenting to our students, and instill in them the value that what they are learning is important.

> And gardens, crucially, live in the "middle:" they are an "an indissoluble mix of our culture and whatever it is that's really out there," (Weston, 1994, pg. 127).

As I have stated earlier, schools have a great many influences upon them. Our students, as well, come from all areas of life and are themselves a product of our culture. Schools are representative of society - the positive and the negative aspects of it. But, because we change people from our experiences within them, we can also be a force of change, however slowly. "Making a difference in the lives of students requires care, commitment, and passion as well as the intellectual know-how to do something about it," (Fullan, 2001, pg. 14).

I have attempted to provide an overview of some of the professional stresses involved for today's teacher. Time plays a key role, for there seems to be too little of it for teachers to adequately do their job. It affects the resources we use, the way we use them, and the time we have with each student. Time has tremendous influence over teachers, and upon our society. I feel that it has an adverse affect on our practice as educators, by building stress in the workplace. We need to support students by slowing down, building a relationship with them and the natural world. I feel that if teachers, as a professional community, could support one another and provide time for one another to reflect upon their work, and enjoy it, we could become more effective.

Outdoor Education Schools

I would now like to discuss four schools that have incorporated environmental education into their mandate and learning philosophy. I will be describing them, and what is particularly effective about them. I was also be noting on whether the program focuses on soft-skills (those skills that focus on personal growth) or hard-skills (actual technical skills such as skiing or mountaineering). I found it interesting to note the variety of ways that people are incorporating wilderness as a classroom, and the mandates and services that they provide. I chose they four schools for several reasons: both Outward Bound and the National Outdoor Leadership School are considered prominent

in the environmental education field, and the North Vancouver Outdoor School and the Wood Street School are considered examples of innovative programming.

Outward Bound

Outward Bound is a commercial business. It is an international company with a head office for each country participating. Outward Bound programs started during World War 2, training sailors to survive, although the first formal school didn't open until 1961 in Colorado.

The programs are varied, but the main focus of all of them is to train people to be more self-assured and capable using the outdoors as a medium, so their focus is definitely soft-skills. You do not have to have outdoors experience or be an athlete to participate, so this program, like the NVOS, is designed to integrate people gently into environmental education. The instructor/ participant ratio is about 2/10. Programs in Outward Bound, like NOLS, run for about 3 weeks to 3 months and can cost from about $3000 up to about $9000.

For youth, OB runs leadership, mountaineering, sea kayaking, and winter programs, which can be used for high school credit. For adults, there are canoe, life renewal (for ages 30 and 50+, respectively), mountaineering, sea kayaking, winter, and general skills programs. OB offers a variety of First Nation, youth, women, and quest community programs for people in crisis or at-risk. These programs have a strong counseling benefit to them. There are also professional programs for corporations looking to build teamwork. OB also instructs all participants to do a solo – 2 days in the wilderness, on your own. Client success comes from their ability to overcome physical and emotional challenges in an exigent environment; and once they attain their goals, they enhance their self esteem.

National Outdoor Leadership School

Like Outward Bound, NOLS is a commercial business in many countries, with each country managing its own organization. There are 12 schools in total working on 5 continents (North America, South America, Asia, Australia, and Africa). NOLS is run non-profit, has been in business since 1965, and focuses on outdoor skills, leadership and environmental studies, although their key focus is hard-skill development in the wilderness. Skills range from paddling (canoe, ocean and river kayaking), mountaineers, spelunking, equestrianism, skiing, backpacking, rock climbing, and others. You can gain high school or university credit for some of their courses, and the age ranges from a minimum of 15, to a minimum of 25, and up, with program length in duration from 3 weeks to 3 months. Tuition ranges from about $3000 up to about $9000 CAD.

There are a myriad of adventure tour companies in operation currently. Where I think NOLS differs from these is its commitment to environmental education, and its desire to operate non-profit. The fact that you can take courses for credit makes its' mandate more believable. There is no better place to find out who you are in the wilderness other than being out in it.

Wood Street School – Experiential Science

The Wood Street School is governed by the Yukon Department of Education as a high school. Students (grade 11) apply to participate in its programs (there are four separate programs at the school, all experientially based) for one semester. Participants are selected on the basis of academic achievement and scholastic attitude. There is a cost of approximately $200 per student to cover food, transportation, etc., although instructors are paid by the Department of Education. There is a separate program budget set up to run it.

The objectives for the program are:

* a responsible attitude about learning, about themselves, about their role in society about the environment.

* thinking and problem solving skills through an integrated approach to academic subjects focused on the sciences.
* a knowledge and appreciation of the natural environment and different ecological zones in the Yukon.
* self-confidence, self-discipline, and rigor in science endeavours.
* a heightened commitment to nutrition, health, and fitness.
* skill and knowledge in a range of field studies.
* cooperative attitudes and habits through group interaction.
* leadership skills.
* communication and observation skills.
* skill and knowledge in a range of field studies.
* cooperative attitudes through group interaction.
* outdoor pursuit skills.
* skills in working with scientists and other community members.
* long-term interests in sciences and specific projects.
* friendships and positive peer relations.

Note the emphasis on "soft-skills", those leadership and self-concept skills that teach the participant how to function more efficiently in their life and with other people.

While in the program, students take Chemistry, Biology, Forests, Applied Skills in Field Methods, and Visual Arts for grade 11, and Geography and CAPP for grade 12. There is a substantial amount of fieldwork and community interaction in this program, in addition to a marine study component done in the Broken Islands off of Vancouver Island, using kayaks. Students raise the money for this trip.

I have heard from a number of student participants about this program on an informal level. While demanding, this program is viewed as being an excellent alternative to regular school, and the students who participate in it generally do very well

(higher than average) on provincial exams. Is this because of the program, or the screening process, or a little of both? It is also seen as being fun.

North Vancouver Outdoor School

The North Vancouver School Board administrates the NVOS. The philosophy for the program is learning that lasts a lifetime through participation. The program participants come from North Vancouver and from outside the district, and are elementary students from grade 2, 4, and 6, with high school students participating in a leadership role for them. Students spend either 2 days/ 1 night, 3 days/ 2 nights, or 5 days/ 4 nights at the facility, depending upon their age. The facility is quite extensive, with creeks, a park, and a sizable cabin system.

The program works in tandem to produce programming with teachers that subscribes to the environmental programs' philosophy, while supporting what the teacher is doing in their own classroom. Teachers will likely have to do some fundraising with their class to cover transportation and food while at the facility. It is a highly successful program, with over 5300 students participating per year, in addition to many private bookings.

The programs' teaching strategies are:

1. Create an emotional link between students and some natural thing, like a newly born chick or an ancient massive cedar.

2. Teach lessons in a real setting, an environment where all senses can collect information, such as a salmon hatchery or farm.

3. Have students work with enthusiastic teachers: role models with special skills in fields such as fisheries technology or cultural interpretation.

4. Equip students for exploration and inquiry with real tools, like binoculars, magnifying glasses, or bentwood boxes.

The NVOS offers programs in natural history, aquatic studies (a salmon hatchery), forest studies (a forest lab), agricultural studies (a farm lab), wildlife studies (a habitat lab), and cultural history programs with the Coast Salish. This is another program that is hugely successful, surviving even massive educational cuts from the B.C. government. This program also seems to focus on soft-skills, with the age of the participants meaning that hard-skill development would be minimal.

I found it interesting that both the commercial programs didn't have curriculum content listed on their websites, or in their brochures, while the schools did; possibly to justify their program. However, it was very evident from looking at them that there is a good deal of learning and especially self-concept building at all of these places. Outward Bound in particular was focused on helping at-risk people become "whole" again through their experiences in the outdoors. Evidently, outdoor experience does have value, for what is the cost of a whole person? It is somewhat depressing to note the high cost of doing these programs, but again is the outcome not worth it? From these models, we can learn that the outdoor classroom is valuable, and that its lessons can be used in many formats to teach people to love their world, and to test themselves, and grow, with it. Like water, which connects all living things, these schools' curriculum touches on many different subjects, allows for personal learning style, and also intellectual and physical growth.

There is absolutely no reason that we cannot teach all of our curriculum goals and IRP objectives through the medium of environmental education. As a society, we would be more fulfilled and happier if we did. Remember, biophilia is a sign of mental health. Can we afford not to? We are certainly not losing anything if we do. Instead, we are teaching our students intrinsic values, and through critical thinking, to find their own. We are allowing for morality, and value, and helping to develop ethics and valid beliefs. We are teaching through relationships, the connecting force in our world. We can incorporate all learning styles, so no one feels alienated. And – we are teaching biophilia, or mental and physical health. Is that not a worthy educational system? We do not need

a new religion, but instead critical thinking, more questions, and mindfulness; a more holistic classroom where growth and development is assured.

William Wordsworth has a poem I would like to conclude with. In it, he phrases one of the many ways that we as teachers can give the gift of the natural world to our students, and the benefits it brings to us and them through this connection.

I wandered lonely as a cloud

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a cloud,
A host, of golden daffodils,
Beside the lake, beneath the trees
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle in the milky way,
They stretched in never-ending line
Along the margin of a bay:
Ten thousand I saw at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced; but they
Out-did the sparkling waves in glee:
A poet could not be but gay,
In such jocund company:
I gazed – and gazed – but little thought
What wealth the show to me had brought:
For oft, when on my coach I lie
In vacant or in pensive mood,

They flash upon that inward eye
Which is the bliss of solitude:
And then my heart with pleasure fills,
And dances with the daffodils.

(Abrams, 1993, pg. 186)

Picture 3[illegible] Looking towards the coast from Montana Mountain.

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