"THESIS WRITING" AS A PRELUDE TO *LIVING* ENVIRONMENTAL

EDUCATION

By

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B.A., University of Toronto, 2005

A thesis submitted in partial fulfillment of
the requirements for the degree of

MASTER OF ARTS
in
ENVIRONMENTAL EDUCATION AND COMMUNICATION

We accept this thesis as conforming
to the required standard

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August 2008

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Abstract

As long as I am observed, I am a teacher. I sought to discover my curriculum through writing a thesis about writing this thesis. I scrutinized various things I did, or was expected to do, in order to complete it. I asked myself questions such as: what do these actions *do* in our world? What do I *teach* (myself and others) by doing them? What *could* I do instead to make these lessons better environmental education? The limitation I imposed upon myself, i.e. that I take my project seriously and make whatever sacrifices or alterations necessary to my "course", became my research methodology. I struggled with various topics, but was not always successful in disbanding what I believed to be my miseducative curriculum. This was inevitable. However, I tried to enact a methodological attitude that I believe is important for conducting environmental education (research), and I did become more skilful at directing my attention towards my ever-present curriculum and at modifying my actions based on it.

Acknowledgement

To all those Beings within and beyond myself who have created the conditions for this work to come forth,

To those creatures who have suffered or died for these words to appear now (I hope you have not given yourselves in vain),

To the Dream I hold to, that I can someday live, love and learn without destroying those around me,

I thank you.

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Introduction

1.

As I stand under the moon in this night, I wonder: how can it shine so clearly, reflect so much –it sheds light on all I can see. From it, everything emerges effortlessly into my view –how can we, who wish to shine, learn from this enlightening teacher? How can we, who create by destroying, who gain "bird's eye views" but through great expenses of energy, learn that giant masses can indeed soar so effortlessly high above? Tonight, I feel this light; I feel *lighter* –her gravity pulls me up and away from my grave-heartedness– and I can almost see this great tide turning, in this remarkable but still so frustrating time for our species.[1]

2.

But how rarely I feel that shine. How much heavier are the days generally becoming –it seems that with all this studying I have been doing about Our Planet, I have been teaching myself to laugh less often, to shed the poetry in my heart, to live in a future painted by all our most dismal possibilities. And with all of that, I am an "environmental educator", teaching people that the world is not only ridding itself of species and cultures, but, through my example, of merriment and magic. A decade ago, I had fewer facts and fewer theories but I felt that my ecological concerns were more infectious. I do not know how one can brush aside one's disposition and *become* a good educator, though I see people, often enough, trying to do just that.

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[1] The American Psychological Association (APA) 5th Edition Publication Manual explains: "Use the dash to indicate only a sudden interruption in the continuity of a sentence. Overuse weakens the flow of material" (2001, p. 81). But does this dash not feel appropriate here, like a little hand pointing back at what had just come before it? Is it not keeping the flow livelier? My use of italics was also questionable: "Use italics infrequently" (p. 100).

3.

I realized that I continue to teach as I continue to live, and that an "environmental education" (EE) curriculum was emanating at all times from my actions, whether I wanted it or not. I realized that there were some things I could do to make this curriculum more "educational", and even though I had no idea how, I thought I should begin to make my very act of researching and writing this thesis *better* environmental education.

Education "for", "with", "in", "through", "about" or "for being for" the environment? These intercontinental debates over the proper preposition for our "slogan" are as incomplete as the venue for which their theory is usually intended –the classroom curriculum. In our much more pedagogically rich and influential *everyday lives* (or we might say *lifeworld*), before any specific construct is given to our motives for acting, we have already acted, and therefore already potentially educated. Environmental education, in its barest essence, is how we *are* in the world. It is the choices we make or fail to make, what we talk about, and how loudly we do it. It is an omnipresent curriculum, springing forth stories, truths, and morals, from even the bed or grave within which we choose to take our sleeps. I believe that we, as educators, have as our primary task the long and hard work of taking responsibility for this fact, of gradually uncovering what our curriculum is, and of making it what we want it to be. It may be the continual stylizing of the Self that Foucault and Nietzsche talk about. So environmental education, in its barest essence, is how we *become* in the world.

To become a "better" environmental educator in part then simply means to live one's life "more environmentally". But it also means to live one's life with the conscientiousness and tact of an educator –the responsibility that comes with knowing that we are continually being watched by things that learn.

What it also means is that we commit ourselves to live in a perpetual, radically contradictory position where Balance hovers before us as a seductive, yet beguiling angel. It means accepting an unstable life lodged between supporting students in reaching their individual potential and imparting attitudes and values that we believe our furtherance and potential as a species ultimately hinge on.

4.

I cannot enumerate, list or describe what it means to "research ecologically", nor will I try to tell you what it means to be an effective "environmental educator". I do not believe it would be either "ecological" or "educative" to present such a summary. At the same time, I have framed my enacting of these twin challenges as the "topic" of my thesis. This thesis itself is a response to these parallel ventures, a response I can demonstrate but never fully tell[2]. In general, I am as wary now as when I started about the ecological effect of coating my inquiry with any lustrous varnish, with a meta-lacquer to veil the roughness of my woodwork. And this is exactly what an ontology, metaphysics, ethics or methodology that is *stated* would be: a smooth sheen you feel as you glide your hand across these pages. Provisionally, I would say that doing so would be counter to my struggle to *be*(come) bioregional, which, at this point, I see as crucial to *being* ecological.

5.

This is a Master's thesis, and so it will be assessed through criteria set out by my learning institution. But what sorts of relationships do these criteria dictate for me with/in my environment? Should they be accepted as "neutral" means to an end, or should they

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[2] I could say, for instance, that I have succeeded 'educationally' if I have spurred some sort of environmental change in myself and in those around me through writing this –but that criteria itself is uncertain as I could very well conclude that setting out to induce behaviouristic change is itself miseducative.

themselves also be committed to the "precautionary principle"[3]? Suppose, for instance, that my ecological research needs to be *poetic* –and there are some compelling reasons to believe that in some sense this is the case –what, if any, "table of contents" or "introduction" could serve to adequately set in motion such a work? If reading is intertwined with the very process of researching (which is also the process of writing, says van Manen (1981)), then what deception am I instituting by sequestering my scholarly influences under a section called "Literature Review"? All in all, there is a vast quantity of re-arranging, shuffling, distilling, extracting, truncating, and conforming that is asked of me in the thesis handbook prepared by my university (Royal Roads, 2007, hereafter referred to as "The MEEC[4] Handbook). All of these processes chop up the original research process to such an extent that it becomes something invisible, to be re-constructed as a second-order reflexive bugbear in the "methods" section. It seems that, if I am to take the call to "be ecological" in my research seriously, then I have to convince myself first that all these formal constructions are ecologically benign. I pledged allegiance to *looking before leaping* as an important kernel of my methodology but, when I found that I had already leapt, I tried to keep as still as possible to see what I had entered into.

6.

At our school, we recently hosted our first workshop for the villagers. The four-day subject was "grafting". I was excited about the subject, and I could see that many of

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[3] September note: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation (*The Rio Declaration*: Principle 15 - the Precautionary Approach; 1992)" (Perrings, 2004).
[4] The acronym "MEEC" means "Master's in Environmental Education and Communication."

the villagers were too. But, as the teacher began presenting the material, I knew that it was not just my eyes that were beginning to glaze over. Over the course of the workshop, attendance dropped dramatically. How had this teacher succeeded in destroying our excitement? The answer, it was clear, was his presentation. His voice was lusterless, his mannerisms weak. He spent long hours telling us all the details about how to graft (45 degree angle, 2.5 cm wide, etc.) before showing us, presenting the techniques as distilled and abstract *prior* to our becoming familiar with them in direct ways. He wrote far too much, even though I kept repeatedly telling him before the workshop that many of the villagers could not read and few of them had an understanding of technical Lao language. After a four-hour session, as an experiment, I went up to the nearby village and taught the technique that had just been presented to us (which I had, with some difficulty, *physically deciphered* with a student after the class). I took a knife, some cuttings, and went to a tree with one of the villagers. After *doing* the grafting once, and hardly speaking at all, I passed another cutting to her and had her do it by herself. She easily grasped it and was eager to learn more. The entire process took five minutes.

How many miseducative factors were at play in our teacher's lesson? What does the monotone voice *do* pedagogically? What does telling instead of showing do? Does reprocessing direct experience into lists, steps, and numbers make us more *able*? What implications does this have for the "Master's Thesis" *as* curriculum, and the presentation of "conclusions" that are expected of me?

7.

I handwrote the first draft of this thesis, and in many ways I still feel that handwriting is the form with which it should be presented to you[5]. They were beautiful,

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[5] In, of course, "12 point Times New Roman or Palatino" (Royal Roads, 2007, p. 42)!

quiet hours spent- mostly on the veranda of my hut overlooking Crocodile Stream[6], named after one of its former inhabitants. My old handwriting came back! It had been so long since I had habitually took up a pen; when I began, my letters were clumsy and crooked, my hand almost felt too big for the task, and my arm quickly became sore. When I told people I was going to seriously limit my use of the computer, and that I was considering eliminating it entirely, they tended to look upon me pitifully. I hope you will understand though what this little red notebook, within which this time was spent, now means: it carries a stage of myself, and a progression that I cannot undo or reorder. A process has been respected. It is this gift that I have been given. Whether or not the subsequent changes I made to it to produce what you are reading now are justified is not to me obvious; I am not sure whether what I have accomplished is a piece of writing in the service of nature, or, as Rigby writes, an inadvertent "argument for the subordination of nature to art" (Rigby, 2006, online). Master of Arts? Or: Art *as* the Master of Nature?

Book I.

1.

February, 2008.

My biggest worry while writing my thesis proposal was my heavy dependence on my computer (Affifi, 2007). Though I kept silent about it in that paper, I was already amassing a number of disparaging arguments against its use. Despite such uneasiness, I wrote the entire proposal using a computer, all the while *appearing* candid about the proposition that I make my actions more congruent with my beliefs. Deferring, I planned

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[6] *Houay Kapeu: Houay* means stream in Lao, *Kapeu* means crocodile in Brou (and several other Katuic languages). Foreign words in this thesis are all Lao unless otherwise specified.

to tackle the computer problem during the writing of the thesis. I shall defer no longer. Here I am now, and this seems like as good a place to start as any. At any rate, this is where I have already begun.

Computers require large amounts of energy to produce, dangerously mined materials to build, create a lot of pollution during both their manufacturing and their disposal, are made to fall apart quickly, produce electromagnetic radiation that is damaging to several of my body organs, and require continual inputs of electricity to run. Compared to what? Well, let's compare it to me writing right now with a pen in this blank day planner that I found in a recycling bin at Robart's library, at the University of Toronto, a couple weeks ago. For all the tools the wordprocessor confers, for all the access to journal articles and internet resources the web bestows, a heavy burden is imposed on my self and our world. I downloaded a timer program off the Internet and clocked the amount of computer-time I spent to write the proposal. It came out to well over 200 hours, a figure which is certainly too low as it does not take into account all the earlier drafts of topics I have long since buried now. Nor does it include the computer time I spent trying to become academically qualified enough to write a thesis (I eventually gave up on that goal, though I still suffer bouts of anguish over my decision). Most of these hours were spent writing in Mississauga, Ontario, where the energy fueling my laptop came from nuclear power plants.

On the basis of these concrete and quantifiable effects alone, I believe computers should be used as little as possible. It seems prudent to keep handwriting for now then.

2.

The direct environmental impacts of computer use, in terms of waste, energy use, and ore extraction is only the most visible fraction of a much greater environmental ruin that computers are associated with.

I live in a remote area of Laos, one of the economically poorest countries in Asia, where I work on education projects supporting rural communities. The youngsters at the school and my co-workers have all seen my face, alit for hours by the fluorescent screen, as I type away in my little hut by the river. I used to not own a computer because I didn't want to send the message that this technology was necessary for "development". But somewhere along the line, I fell. When I finally did buy one, I used to refuse to bring it out when Lao people were around, unless they came from cities or other areas where they had already been in contact with computers. I am not sure why that sort of qualification should have made a difference, but it did. Anyway, recently I have been much more open about my computer use, perhaps excessively so, in that I do most of my "homework" in front of it and in front of them. I have therefore been teaching the people with whom I live that this technology serves some indispensable function, should not be used carefully or with discretion, and that it is not worth vocalizing any environmental (or social!) concerns I might have with it. Writing a thesis on environmental education while living in a poor country is therefore not necessarily a great idea.

One time, I showed some segments of *Baraka* to a Brou[7] boy, from Salavanh Province, in Southern Laos. It was my first attempt to use audiovisual technology as a teaching aid here. I thought that the crowded visual images, the torture of the factory chicks, and the frantic energy, were clear and obvious signs of the madness of modern civilization –a lesson that would surely vindicate my use of a DVD player. However, far from being universally contemptuous, these images were truly delightful to the young

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[7] An Austroasiatic ethnic group that originally came from Ta-oi district, a remote and mountainous area on the Vietnamese border in Southern Laos.

boy. Having lived in a bamboo hut his whole life, never even having been to one of the bigger towns in Laos, he could not contain his excitement while gazing wondrously at the images. He kept muttering "beautiful, perfect, great!" at the clutter, the cement and the technology. At one point, he even said: "Oh, what a shame it is for me to have been born poor!" Of course, he may have already been 'prepped' for admiration through what was framing all these images: my slick laptop on which he watched.

It is risky for me to assume that the computer is a neutral tool to be used without social ramifications. And yet, it is patronizing to hide what I am doing from the villagers. It makes more sense for me to bring the computer out when and if I *really* need it, so that they can get a real sense of what role it plays in my life and work. Unfortunately, figuring out when exactly I really need it is not easy.

3.

This morning, I continued thinking about the effects of computers on myself and on those around me. I felt the eerie sensation that I had hardly scratched the surface of this technology, and yet, I already felt much better about my decision to continue handwriting. Do I need additional reasons? I do not think so, but I *enjoy* thinking about these things and am compelled to prod further. Perhaps I will gain a better understanding of when I should be using them.

If the direct environmental ills of using computers and the indirect ones of doing this in Laos were not enough, I realize that there are many other dangers associated with their use in the way that they modify thought patterns. In some ways, little can be said about this, because the type and intensity of effect generated obviously depends on the software one is using. However, a number of features universal to most programs could be uncannily funneling us into unsustainable mindscapes, and warrant investigation.

"Cut and paste", "delete", the system of organizing files within folders and subfolders, and many other attributes of computers today, all re-enforce some ways of thinking at the exclusion of others. For example, the "delete" button encourages experimentation, but also constant reevaluation, and it crushes the living sense of *consequence* that arises out of temporality.

When writing on paper, a thought cannot be erased without a trace. We can cross it out, white it out, even take scissors and cut it out, if we are so driven –but the thought will always leave its mark. Even with pencils, an imprint remains on the page and the feel on the paper changes as a result of the oiliness of the eraser. This physicality has a temporal lesson: we are continually reminded that we cannot go back and change the past because our past is still existent as the grounds for our current conditions. As a result, when handwriting, I feel my relationship with my thoughts distinctly change: I approach thought as more of a jazz improviser than a technician, with the feeling that *I've only got one chance, so I've got to listen to where I am going so I can get there.* This poise seems to be a more realistic approach to living with others, for developing meaningful and attentive relationships with others, and for developing more ecological ways of living. With temporality comes responsibility. By contrast, the ahistorical and inconsequential nature of word processors denies the importance of the past, rendering the "present" rudderless.

Thus, the potential environmental impacts of computer usage span several dimensions, and need careful scrutiny. I recognize that writing on paper is not a benign alternative, that the production of paper, ink, etc., can be damaging too, and that writing also makes me think in certain ways that I would not otherwise do were I to keep my mental ecosystem *oral*. However, until I write something as beautiful as the *Odyssey*, there is no reason to believe that I should even remain sentenced to penning sentences.

Orally? Perhaps this is how I should proceed on *my* odyssey? Most of the societies still sustainable on Earth, according to some authors, cannot read or write (Orr, 1992) (though this seems to me not a sufficient condition: most of those still illiterate are now unsustainable too). Marshall McLuhan (1964) pointed out that writing opens up a private and inward space where previously there had been none. Writing promotes individualism whereas speaking strengthens social cohesion.

Should I even continue to write?[8]

It might be objected at this point that these elusive sorts of messages are unlikely to be picked up any observers, at least not consciously, and are therefore not relevant to "my curriculum". However, an exploration such as this is, I think, still relevant, because my thesis question requires me to uncover some of the unintended aspects of my living curriculum –not just those aspects that can or are consciously articulated by observers. Take typewritten text for example. Among the mostly unconsciously normalized messages communicated through its use are the following: 1) meaning is (or should) be confined to the concept uttered, 2) emotional/expressive variations in handwriting do not exist or are merely bothersome or irrelevant, and 3) that the same word can be reproduced in exactly the same way more than once (and that there is therefore a raw, acontextual, eternal, meaning, a Platonic Idea, continuous throughout its iterations).

4.

After reading what I had written so far and scanned to send to her, Antoinette Oberg, my thesis supervisor, asked me: "What about the capacity of the computer to provide for a means of exchange (even with oneself) that is closer to the informality,

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[8] I did not explore this question in any detail this paper. I expect that interesting work could be done in exploring oral, pictorial, and maybe even sensual ways of researching and communicating research.

spontaneity, and immediacy of the oral than to the formality, premeditation, and distance of the written?" (A. Oberg, personal communication, February 14, 2008).

This led to a rather long response, which, after a bit of a tangent, hones in on some important insights. I shaped up the grammar a bit, so this is no longer a direct quotation:

"The way computers affect writing probably depends on several factors –some of which can vary from person to person, others which do not. For example, I suspect it is true for (almost) everybody that writing on a computer is a bilobular activity whereas handwriting is not. I am not sure what might result from this difference, but I do think that the mere fact that computers are a physically bilateral experience is likely to produce a different mentalscape because I believe that there is a close and continuous correspondence between how we use our body and how are mind minds.

"Another major difference is writing speed. Handwriting has an upper limit – though it seems I can always learn to write a little bit quicker, I still seem to be asymptotically bound to some threshold that is slower than the speed I think in in oral space. This is not so when typing- in fact, sometimes the reverse is even true: I can type the beginning of a sentence quicker than I can speak it, so I sometimes "get ahead" of my thought, causing me to draw a blank. Those with faster minds (or slower typing skills) might not have this problem, so there are obviously some contextual factors that should caution me against universalizing here too. Nevertheless, I believe it is accurate to say that the range of speeds for typing is greater than that for handwriting, and that this will have some effect for me and others who use these technologies to generate thought.

"There is a sense in which some aspects of the computer are more informal, spontaneous and immediate than handwriting –but does that make them closer to the oral? If we take the examples of chatting, emails, and blogs, a number of distancing

conventions in writing have been abandoned –particularly as regards to the attention paid to spelling, grammar, and formatting. I would suppose this has to do with the de-visualizing nature of these media: the unique and constant creation of a visual pattern of oneself through handwriting is absent in typed text. Thus, users of typewriting tend to focus on content –and the other visual aspects, such as formatting, tend to slip away from the forefront as well[9]. (Perhaps the advent of "spell-check" and "grammar check" has freed people who would otherwise not feel comfortable to write").

"It seems to me that oral communication is often more formal and less spontaneous than either handwriting or computer use. Orality requires a commitment to the thought, idea, emotion one has begun expressing –and is therefore similar to writing and not wordprocessor use. It is a unique and constant creation of the aural pattern of the self, corresponding to the visual dimension of handwriting, and again absent in typing. Every time I go back on a thought I am developing, alter it or change tracks, this becomes a part of the manifestation of my unique "pattern" and is identical in this respect to writing. Were I to change my mind about something I was writing right now, you would gain more knowledge about me (i.e. my hesitations, internal contradictions, uncertainties, etc.). Not so with most computer usage (with chatting a possible exception): instead, every time I go back on myself, you gain less information as I employ the backspace button and disintegrate my history. The "track changes" option on the computer could alleviate some of this if used creatively (incidentally, would APA accept a thesis with "track changes" visible?).

"When I wrote that handwriting requires me to be conscious of how my "now point" is contextually bound into a process that includes my past ground as well as a future with consequences (in a way that wordprocessors omit), I was not suggesting that

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[9] September note: No. This is certainly inaccurate. Typing can also lead to an excessive attention to formatting details.

handwriting was more "pre-meditated" as an activity. I feel that, although it is not "rudderless", it is still spontaneous –the past constrains the range of possible now-point choices, but in so doing, merely refines the thematic, stylistic, and developmental choices we have. It feels as though something similar to Maturana and Varela's notion of "structural coupling" (1987) is at work here. In the process of writing, two interacting systems become structurally fit together through mutually influencing one another in a series of recursive interactions. When a thought is just beginning to be put into words, the variance between the mental ecosystem and its linguistic expression is wide and the range of possible futures the thought can take appear vast. As I begin to write, each one gradually accommodates the other: the shared history of my thoughts and their interactions with the words on this page converge on a tighter range of possible actions precisely because there becomes less and less futures that can be integrated convincingly into its continually enriching context. But this does not mean that spontaneity is not possible or desirable at every moment leading right up to the final full stop at the end of the sentence.

"I see this process of structural coupling occurring in oral modes too (but they are more complex because they are more likely to involve several co-interacting minds). This historicity is, I think, what allows ecological as well as social systems to exist, and is an essential part of the "now". In my mind, any philosophy espousing "living in the present" must acknowledge this.

"One could argue that handwriting (and the notion of historicity in general) is a Western, linear, imposition on time that may not be shared by those in other (actual or hypothetical) cultural traditions. Usually "circular" notions of time are brought forth as examples of these. However, it does not seem to me as though "linear" and "circular" conceptions of time are mutually exclusive. The concept of linearity here, as I see it is

this: there is a "past" that once was but now is only left in traces, there is a "future" that will become a "now", and in so doing, a part of the past. There is also some notion that some past events occurred before others, and that some projected future events will happen after others too. For the same reason that our linear concept of this flow does not conflict with our awareness that there are "seasons", it is quite easy to imagine some sort of Grand Cycle within which we are submerged –but which we experience linearly.

"Regardless, even if there were other constructions of time that were so foreign to me (who is structurally coupled with English) as to be inconceivable, this does not mean that the potential ahistoricity at all times present when working on a wordprocessor presents us with a livable way of existing. No matter how our language creates our perceptions of temporal experiences, it cannot take away from the pre-linguistic fact that we cannot just "go back".

"Ecological thinking, as well as my awareness of the ecological crisis, are based on linear notions of time. Bowers (1993) criticizes "linear time" by equating it with notions of "progress", but progress seems to me more like a valuation and not necessarily a part of the concept of linearity. To put it another way, my awareness that there is an ecological crisis is based on an understanding of "how things were" and what appears to be "coming", and that my range of choices about how to live is bound by these conceptions. Handwriting follows this. as its nature is a linear one in some sense. But this does not mean I think things are going to get any better."

5.

While in Canada, I ordered a copy of Chet Bowers' *Let them Eat Data* (2000). I was familiar with his biting style through some of his essays on liberal educators, and I felt sure this one would be an absorbing diatribe almost certainly relevant to

understanding the relationship between computers, environmental education, and sustainability. I have spent the last few days reading it. He met my expectations.

I agree with many of his criticisms. There are some inconsistencies and hypocrisy, not to mention a general tendency to polarize issues, but on the whole the book provides me with some more ammunition with which to defend my resistance to using the computer at this stage (do I need ammunition? Am I engaged in war?). I also agree with many of his proposed solutions. However, he did not provide me with what I quickly realized I was looking for. He failed to show whether and how he himself tries to avoid the very technologies he is so accustomed to dissecting. Most obviously, he does not mention whether or how he himself is justified in using computers to write critically about their usage, which he is firm to point out are destructive *independently* of the purpose for which they are being used. There are many other omissions of this type: he criticizes the individual-centeredness of Western languages without attempting to redraw the "I" in his own writing. He directs what seem like personal attacks against those who fail to see that the mind is a socially and ecologically embedded system. He faithfully depends on the ironic, computer-age metaphor "language encodes culture". In short, and to use a term that he is very fond of, he engages in a number of devastating *double binds* in his very attempt to call attention to those of others.

How can we take his messages and struggles to their meaningful conclusion? It is the failure to bridge theory and practice that is absent in environmental education discourse –even in those that expatiate on the necessity of praxis. McKenzie (2004), Payne (1999), and Robottom (2006), each provide poststructural, phenomenological, and criticalist discussions of the importance of praxis in EE research without themselves being praxis-written papers. This separation of living (which includes researching) and

writing about it suggests an important bridge is *playing truant* from our curricular

discussions. *When*, I ask them, are we *not* engaged in environmental education?

6.

To dispute referencing other works seems to run against the very essence of

academia; a long list of virtues of this practice is well known to scholars[10]. But not

documented are what seem to me its dangers. I believe that the following assumptions

tend to be re-enforced by the act of referencing, and that they can each propagate

injurious behaviour in social and ecological systems: 1) knowledge is not a localized,

nested, bio-regional activity so thoughts, ideas, or pieces of information can be separated

out from their original contexts, 2) that we can separate ourselves enough from our

unique contexts to enter into that of another, 3) that other people's positions are fixed

enough that they can be summarized, added to, deconstructed, or superseded 4) that all

points that we have not referenced are original thought, 5) that non-humans need not be

referenced, and 6) that there is a clear distinction between original and reference-able

thought. There are obviously other points to be added to this list.

Myths, poems, stories and music –despite being equally composite in nature– do

not share the atomistic psychology that is required now for writing "scholarly" work.

Within these forms instead lies an indissoluble connection between the parts and the

whole –which I believe is more likely to reinforce ecological patterns of thought. What

would academia look like if this practice were with a great deal more discretion? It seems

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[10] The apprehensiveness you likely feel right now at this seeming *non sequitur* is of
significance: what you are yearning for is a Grand Narrative that will thread my thesis
writing experience into a tale. However, temporality is not so simple; this is the thought
that arose after writing about Bowers in the preceding paragraph. Perhaps I was
influenced by my urge to reference those EE researchers in the last paragraph?

to me as thought the centrality of the ego, which is readily apparent as the 'real' argument being defended in most debates, might be quietly put to rest[11].

7.

And do I need to throw away the great theorists too, that Bowers holds to the fire? I would like to re-interpret some of the liberal theorists that he clashes with. Freire's (1968/1972)[12] concept of dialogue can be extended to include relationships with/in our environment. We can engage in a pedagogical relationship with nature too, but the system is of such sheer complexity and variance, that the intimacy between teacher-student and student-teacher cannot come about through the experience of nature that one lifetime provides, thus requiring the oppressive "culture" and "tradition" that he was so eager to fell. Dewey's experimental approach (e.g. 1933/1991) also need not be thrown out if we keep in mind that traditions already contain a great deal of "data" (though not in the abstract, decontextualized current sense) of past experiments. Living ecologically means then (perhaps): being a Deweyian thinker without trying to rediscover what we already know[13]. It is the acceptance that the *very conditions* for us to be able to

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[11] Was I not defending my ego in some way through my terse gauging of McKenzie, Payne, and Robottom's work?

[12] Antoinette Oberg asked me: "What could we do to avoid the "atomistic psychology" of which you describe?" (A. Oberg, personal communication, February 14, 2008). I do not have an answer yet. But I do know that my mind has already become partially atomistic and that when I wrote this passage, I really was addressing Freire's isolated point as though it could be re-arranged from "over here". I have not yet learnt from my critique of referencing.

[13] *Socratic legacy*- Since Socrates, an increasingly populous legion of dangerous thinkers has sought ways to, and has been enthralled with, rupturing their societies' conceptual fabric from the inside out. This rebelliousness later spread to the arts, while simultaneously refining itself into "science", but the consequence was always the same: what was formerly accepted, perhaps even unconsciously, lost its luster, and "tradition", its en*compass*ing power. Consumerism, with an engine fueled by change, is but a late manifestation of such a self-propelling along this trajectory. Ultimately, what is produced is a costly reenactment of our steps, perhaps as a multi-millennial Cartesian Meditation, finally inscribing a pathway from "universal doubt" to re-affirmation of

experiment have already been experimented on and the individual gains of repeating the exploration are not without dire cost.

8.

The assumption that "change is progressive," which Bowers intensively critiques, is also pervasive across academia. A Masters or a dissertation usually requires "evidence of originality and creativity" (Royal Roads, 2007 p. 36), with those of top quality being those that make a novel contribution to a field of study. This built-in demand for innovation, like its materialist-technological ally, discounts the possibilities of our stabilizing human behaviour within ecosystems and living simply according to born out ecological traditions. But this does not mean that writing an "ecological" argument is an impossible endeavour altogether. For example, new knowledge can contribute to a negative rather than a positive feedback loops, in acknowledgement of the overarching limit imposed on our creative aspirations by our biosphere. This criterion, however difficult to achieve, should be no more objectionable than the current requirements that research not contribute to physical or psychological damage on the part of its participants, not exploit or discriminate based on race or gender, or any of the other issues prominent in research ethics reviews. The fact that ethics reviews are not required for research that does not involve human subjects directly points to a short-sighted anthropocentrism that scholars, wishing to promote inquiry that keeps our world living, are required to take in its absence.

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traditions long extinct. The value will not lie in how it has helped us live better; instead, it will be as an articulated self-consciousness of a tragicomic, earthly drama. In this later stage, the philosopher, whose liberal spirit has for long been so dangerous, now seeks to liberate us from liberalism entirely, which by that point has become so successively sedemented into consciousness that conservative thought seems almost heretical. It is at this point, after escorting us to such harrowing ends, that freethinking finally gains the will to salvage. But it does not have the means. Or does it?

9.

All interactions between living things exist in four simultaneous pedagogical modes (teacher, student, teacher educator, and student teacher). I realized this while writing the thesis proposal. Then, when reading a used copy of Bateson's *Mind and Nature* (1980), I considered that this describes, through an educational lens, a Batesonian extended sense of "mind". I do not think it is trivial to conceive of these modes as existing in our relationships with non-human people either, as other life forms are learning systems as well, as a condition of their being (which *is* their becoming).

A Batesonian understanding of "mind" recognizes that mind is a property not of an individual, but instead of an individual *in* an environment, and so provides further criticism to what I would argue is the "naïve" conception of standard academic referencing practices. Any idea I have must come from the interaction between my self and my context. This context includes not only humans, who continually influence me in ways I am forever but scarcely aware of, but also all sorts of other life forms and inanimate objects that most scholars would consider absurd to "cite". Standard referencing practicing enforce not only the assumption that "I" *can* generate ideas, that I can *own* them in the sense that my authorship is a case of complete individualism, but also that written ideas either come from other humans or from oneself- but this promulgates an anthropocentric conception of creativity, and the notion that non-human relationships do not play an important enough role in one's intellectual development to require acknowledgement.

Perhaps an ecological work would seek to abandon this cynosure, to wrest human predominance out of the credited foreground by finding innovative ways to cite these non-human influences –but this also obviously requires that the researcher observe his or

her engagement in the world in a new light. Referencing, following Bateson's concept of mind, could become an activity for *attuning* our ecological awareness. However, there still seems to be something dissatisfyingly about this solution. The deeper problem was never that there was a finite number of unmentioned sources behind our current thought that deserved attention. It was rather that our influences are actually an evolving web of indiscrete relationships and that referencing, while giving the appearance of transparently revealing one's foundations, in fact cloaks them, while furthering the construction of the reductionist narrative. I am not saying that such identifiable causality does not occur at all, but that it does not occur nearly as frequently as we think it does[14].

10.

In the MEEC handbook (Royal Roads, 2007), there is conflicting information as to whether APA 5th edition formatting is required. On page four, it is written: "If the content and form of the document is such that these guidelines are inappropriate, consult with your thesis supervisor and the Program Head for approval of alternative formatting" (p. 4)[15]. However, the would-be researcher might be forgiven for not seeing APA as a voluntary choice, considering the strong language otherwise peppered throughout the document regarding its usage (e.g. "learners must produce a thesis in accordance with the APA 5th edition publication manual" (p. 4), "the thesis should be formatted in accordance with the APA style guide as noted in Section 1.6" (p. 16), "the table of contents helps the researcher organize the dissertation and ensures that the correct APA headings have been used throughout the document", "the different levels of headings

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[14] It seems to me (upon rereading this section) particularly important to not go out of one's way *after* one has written to find a document that will support one's claim. This gives a false sense of the historicity and tempo of the knowledge.
[15] And yet, why does it feel acceptable to quote the MEEC handbook, in spite of my criticisms of taking an idea out of its original context?

make the dissertation more easily read, reflect the relationship of topics and sections to one another, and promote internal consistency within the document" (p. 18), "RRU requires that the thesis... conform to the APA style guide 5th edition" (p. 27). In the section entitled, "Thesis Quality Standards", the *first* question listed under "Production Quality Considerations" is: "Does the thesis layout and format conform to the APA 5th style guide?" (p. 25)).

Alan Bleakley (2000), noting APA formatting's "arid and overdetermined stylistic conventions", addressed the dangerous presumption that form and content were separable when he observed that "flat, literal, instrumental and technical-rational writing will produce similar styles of reflection" (p. 12). Is this why I find so much writing on education so boring?

Is this the only danger involved with this format?

As I read the APA 5th edition publication manual, I found a number of biases and conventions that have significant environmental and educational implications. Because this issue has been so scarcely attended to in the literature, I do not feel that it is adequate to simply make a quiet appeal to the Program Head to use some alternative formatting. Instead, I think it is important to raise these issues in an academic context so that other scholars can contribute to uncovering the formative influences of APA as well. This is not a well-documented area of inquiry. I am concerned with the influences of this format on my Self, my self as educator, and my self as environmental educator –though, as you know, I do not hold a 'real' separation between these terms. However, in saying this, it should be clear that I do not naively suppose that any other alternative or unconventional sort of formatting is 'ecological' even if a couple of reasons are put up in its defense. The age-old political dilemma of working 'within the system' albeit with all its limitations, versus working outside it, full of ideals and inexperience, resurfaces here.

Whatever I do, I must do it carefully.

11.

In the Chapter entitled, "Expressing ideas and reducing bias in language", the publishers at the American Psychological Association seem to be clearly, however unwittingly, revealing their own biases. I will address some of these, explaining what role they could have in propagating un-ecological thought and behaviour.

Leaving aside the fact that the belief in bias-free writing is itself biased, what else does the Association expose of itself in this chapter?

It is very human-centered in its ethical considerations. There is a preeminence paid to advising researchers to write in a neutral way "to avoid perpetuating demeaning attitudes and biased assumptions about people in their writing" (p.61), with fifteen pages devoted to making exact what language is currently acceptable as regards gender, race, ethnicity, disabilities, age, and sexual orientation. I have no qualms with these concerns. What is lacking here, and what forms a part of the APA's "null curriculum" (Eisner, 1985), is any suggestion of what "ecologically appropriate" writing should or should not look like, or whether the writer should strive for it at all. The environmental implications of what we do or do not write are, by extension, irrelevant. However, even from an anthropocentric viewpoint (like the one the APA writers are steeped in), this is misguided: reinforcing environmentally destructive thought patterns can be just as damaging to people and their communities as insensitive labels –and in many cases, a great deal more so.

In fact, the only mention paid to non-human life forms at all in this chapter does not appear in the subsection on reducing biases in language. It is mentioned several pages earlier, in a passage that advises researchers on ways to write "more clearly". With the

semblance of utmost apoliticality, the authors recommend the following use of language:

Incorrect:

The rats who completed the task successfully were rewarded.

Correct:

The rats that completed the task successfully were rewarded.

Used neuter pronouns to refer to animals (e.g. "the dog... it") unless the animals have been named:

The chimps were tested daily ... Sheba was tested unrestrained in an open testing area, which was her usual context for training (p. 48).

Besides the fact that the passive tense is used consistently here (while being emphatically rejected in other sections of the text), as though the objectification of animals were acceptable (while being dissuaded when used with humans), notice how laughably Skinnerian is the content of these sentences. The types of studies indicated are conducted within a paradigm that sees consciousness as irrelevant. While this psychological outlook has now been discredited in human studies, it still appears alive and well here: animals and plants as complex stimulus-response machines –dust from the Cartesian storm[16].

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[16] June note: Ah!! I caught myself in the act: Descartes is over-demonized in current writing. Over the past few decades, it has almost become a ritualized practice that respectable environmentalists must hold the Cartesian Dualism up to the flames, and do their little bit to destroy his legacy. It does not occur to them that Descartes, like Newton, Galileo, and others who are similarly cast as icy, myopic, surgeons of the soul, were

This denial of the subject is further endorsed in the instruction that we not use the pronoun "who" when referring to rats and limit our use of "he" or "she" to "it" unless the animal has been named. These linguistic constructs are biased against animals, inclining people to conceive of them as more similar to inanimate objects (that we universally refer

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driven to explore their worlds by the deepest sense of awe and inspiration. Their spirituality lay in their reverence of patterns, abstract deities not visible to those without subtle eyes. And it is this that led them to problems then and now. Berry and Tucker (2006) provide a recent example of the line of attack that has become repetitive to the point of absurdity. After pinpointing the 'devastation of the planet' as a 'direct consequence' of our loss of interaction with the non-human world they write:

> This reached its most decisive moment in the seventeenth-century proposal of Rene Descartes that the universe is composed simply of 'mind and mechanism'. In this single stroke, he devitalized the planet and its living creatures, with the exception of the human. .... The thousandfold voices of the natural world became inaudible to many humans. The mountains, rivers, wind, and sea all became mute insofar as humans were concerned. The forests were no longer the abode of an infinite number of spirit presences but were simply so many board feet of timber to be 'harvested' as objects used for human benefit (2006, p. 17-19).

Are we really to understand that 'in a single stroke' such a 'decisive moment' struck, thereby legitimating an instrumental view towards non-humans, thus ushering in the era of destruction? Were these forest spirits not already long ago slain by monotheistic religions? Was non-human life not instrumentalized for millennia before him, in preparation for war, in struggles for honour –even in agriculture? And conversely: was human-life suddenly *non*-instrumentalized after Descartes? Did slavery or prostitution end because of Descartes pronouncements? Would it not make more sense to say that instrumental thinking towards other life forms has always been with us, as one of the modes of interaction we can have with others, that it as is necessary for our survival as it is in its varying forms in other animals, but that it is destructive when it casts away our other, necessary modes of interaction to assert its own supremacy?

The bias of 'conceptual' explanations over 'technological' ones is so prevalent that deep ecologists who place such heavy emphases on Descartes' infamous dualism are blind to the fact that their 'holistic' formulations have not prevented them from being even more ecologically-destructive than that poor, French mathematician. It may in part be laziness (thinkers find 'paradigm shifting' much more fun than lifestyle changes), in part a tendency to value 'mental' over 'material' explanations (and hence betraying their subconscious Cartesian allegiance), and in part their narrative faith that a 'cause' for this seemingly irrational 'stage' of human behaviour that they have identified, can be provided.

I am not suggesting that a material explanation alone suffices either. However, the fact that a material explanation is an 'explanation' indicates that it has at least kept mind and matter integrated on some level.

to using "it") than conscious beings (as "he" or "she" imply)[17].

One last comment: the APA permits "he" or "she" as long as the animal *has been named*. In some ways, I find that more frightening than any of the other things they are seeking to normalize.

Ironically, the only other mention of animals in the book occurs in a section warning us not to anthropomorphize them (which, in itself can further anthropocentric thought: if we can say nothing at all about their thoughts, ideas, feelings, then we are prone to think that they do not have them) and a section on guidelines for their ethical treatment, requiring researchers to "acquire, care for, use, and dispose of animals" (p. 394) according to the law and professional standards, with several indications on what "humane" [*sic*] behaviour would entail in the case of conducting surgical experiments or terminating the animals' life.

Again, the contrast between this section (6.20) and those it directly follows (i.e. a long series of ethical guidelines (6.06-6.19) pertaining to humans) is striking. In these sections, the detailed, familiar world of ethical reviews comes into view, and researchers are asked to consider rather subtle and sensitive issues such as when and how "deception" is justified, how data should be shared with participants, what sort of information the participants need to be told of the study in advance, how to establish informed consent, and how to avoid producing misleading results.

It seems to me as though a number of these concerns could not be extended to animals precisely because the APA insists that we not anthropomorphize them. If we lead a mouse to believe that he or she is being cared for.—only to thereafter conduct some dangerous experiment on its life –is this not "deception"? To argue that killing animals in

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[17] September note: Martin Buber (1970) differentiates between I-thou and I-it relationships. He considers the later based on purpose, or instrumentality and to be primarily directed to inanimate objects. The former, by contrast, is based on love.

order to confirm an established theory is unjustifiable on account of the pain they feel, or the fear that they would have to go through, or their rights to life, etc., is to anthropomorphize them and is therefore, according to the APA, unwarrantable. This position essentially frames animals as beings that exist instrumentally in order for humans to further our quest for knowledge –and not as co-existing beings co-creating a biosphere.

Further, there is no mention of ethical treatment of plants, ecosystems, cultures, endangered languages, or even of one's Self in the text. The ethical limitations of the APA seem more or less identical to the legal dimensions of lawsuits. My thesis does not require an "ethical review" because I apparently have no human participants. I may have none that can easily sue the university, but I am engaged with people constantly as I am writing this thesis and the ideas generated through writing this change the way I relate with them, for better or for worse. But, and more significantly, the amount of airplane trips, paper, coffee-chain coffee, books purchased, energy used, etc., need not be evaluated nor limited in any way –and all can and do play detrimentally in the life of both human and non-human life forms.

I will not follow the APA's guidelines on writing style as regards non-human life, nor will I limit the ethical review I am conducting upon myself to the criteria they set out.

12.

A callow realism towards language is consistently projected throughout the APA publication manual. The authors advise, for example, that we "make certain every word means exactly what [we] intend it to mean" (p. 36), explain that "scientific writing must be precise" (p. 32), that we avoid vocabulary that "encumbers the communication of information" (p. 35), and that the method we use be described such that it can "be

replicated from the description provided" (p. 30), and lastly, that the conclusions be "unambiguous, valid" (p. 30, see also p. 62). All types of science that do not accept that a one-to-one correspondence between thoughts and language is possible are dismissed in favour of a narrow range of inquiry that explores only that which can be rendered uncontroversially into symbols. These limitations seem unacceptable for psychology, but perhaps even more so for education.

Like a composer writing a piece of music, we can improve the style of our writing, the relationship between the parts (as when we seek to use terms consistently) – but the more we do this, the more our description becomes something artistic (in the sense that it was fashioned according to our aesthetics instead of our direct experience). Does a term ever have a precise meaning, as called for by the APA, when used in the process of living? What a falsification to require precision, an elaborately constructed architecture, from something as elusive in origin as the fluctuating lifeworld! Small wonder that the word *praecidere* from which 'precision' is derived means 'to cut off' or 'cut short'!

The irony of the APA is then that in its struggle against "artistic writing", against "setting up ambiguity, inserting the unexpected, omitting the expected, ... suddenly shifting the topic, tense, or person" (pp. 32-33), against "embellishment and flowery writing" (p. 35), "colloquial expressions" (p. 37), "heavy alliteration, rhyming, poetic expressions" (p. 61), "metaphors" (p. 61), "italics for emphasis" (p. 102), it closets scholarly writing from the very tools that we can employ in order to, if not describe (which I hesitate at being able to do), then at least show life and experience.

13.

Historically, no abstract concept (and it is these that are of most interest to

scholars) has had a fixed meaning. Their shiftiness is their charm. The meanings of the

words we employ are everchanging, distending or dwindling, with associations or

relations made and broken, divided or subsumed –continuously. It is part of an aesthetic

sense (shall I call it the *scientific aesthetic*?) that strives for semantic constancy

throughout the duration of a text. This leads scholars to define their terms in simplistic

and acontextual ways at the outset of their work, as though once we have our building

blocks, and we know how they fit together, we can begin constructing our edifice. It

seems to me that Nietzsche, without being "unscientific", provides the clearest alternative

to this sort of scientific aesthetic: besides his excessive use of italics and dashes, of

metaphors and poetic expressions, his mastery of suddenly changing the subject for the

sake of contrast, or his art of slowly revealing connections between themes, he also did

what so few other philosophers dared: he openly used concepts in only very locally

precise ways. One picks up that the "conscience" he is describing in one part of his book

is clearly not the same "conscience" he describes in another part –or are they different

layers of a rich, *living* concept? Either way, he has no hesitations about it, and steadily

reveals the multi-leveled, contextual nature of concepts, and the intellectual

impoverishment we suffer by insisting on constancy. Thus, the great influence on Freud,

who remarked that Nietzsche's "premonitions and insights often agree in the most

amazing manner with the laborious results of psychoanalysis" (quoted in Kauffman,

1974, p. 182-183), writes in a way that is totally unacceptable to the American

Psychological Association. But, then again, in all likelihood, so did Freud.

The psychological depths to which we can plumb our being by not insisting on the

APA's constrictions are vast. The APA could recognize all the potential that they are

cloistering us off of, of a caliber and acuity embodied in the works of the great novelists,

poets, philosophers and scientists of all ages. It should come as no surprise that the same

sensitive interdependence between the flowing parts of a system –whether or not those "parts" are people, or parts of people- should also follow for the languages we use to describe these situations.

And so such fluidity is also required for the way in which we speak of ourselves as "parts" of social systems and ecosystems. We are quickly discovering that there is no universal "way" of being environmental. A technology that appears benign in one context can wreak havoc in another. Climatic, geographic, biological, and cultural factors interact continuously to create continually evolving, locally specific relationships. A language that remains constant and universal is a harmful interpretive framework for understanding the fluctuating and diverse world around us.

I am going to look again into the work of influential poststructuralist education researcher, Patti Lather. She is known for proposing various forms of "transgressive validity", such as "paralogic validity", which seeks to be intentionally self-contradictory so that no overarching explanatory framework is erected and so that reason is not given monolithic authority. This may converge with my concerns about words and meaning in a way that I have not yet found amongst environmental education researchers. She also has a chapter in her book, *Getting Smart* (1991), called "Research as Praxis". I would like to see what solutions she enacts.

14.

Bredberg (1998) writes critically of psychology and education scholars who fail to follow the APA's recommendation to avoid the passive voice when writing. Her main critique is that the passive tense is used rhetorically because it appears to give universal and objective authority to written statements. This is a reasonable supposition, however it does not express the breadth of the tense adequately: Milgram's writing "the subjects

were administered 'shocks'" (1963) may have been more a matter of wanting distance from the act, in the vein of Ronald Reagan's famously craven confession, "mistakes were made."

On the other hand, Bowers (2001) remarks that my sense of being an autonomous individual marginalizes my feeling of being a part of a community. He openly criticizes the naïve use of the "I" (but never refrains from using it). And perhaps he is right. The "I" fails to express Bateson's conception of mind. In some sense, an I-point exists, but is more of a convergence of various intertwined factors –or it could be thought of as how the universe expresses itself at the place and time "me". And while there is a sense of autonomous agency, it always feels tempered by various biological, social, cultural, and linguistic factors, so that the actual range of possible "free" choices I can make is actually but a small shred of what my agency feels like in my imagination.

Wait.

It is the phrasal construction that imposes this sense of autonomy: I choose "x" - this description is quite different than that of Latin, in that a sharp distinction between actor, the act and the context are all made. Because Latin would express a verb without a subject, but instead through conjugation alone, the doer and what is done is also united. Further, agency, at least as it is thought of through active voice constructions in English, does not take predominance in Latin. Descartes' "cogito ergo sum" is incorrectly translated as "I think therefore I am". It is more closely something like: "*Thinking therefore being*" with the gerund qualified so that we have a relational sense of where the utterance is coming from.

The passive tense does appear to have some benefits over the active tense in how it avoids inscribing the incomplete supposition that a subject instigates a verb. But, as Bredberg and Reagan have shown us, this is also its weakness. The question becomes: if

we take seriously the claim that our conceiving of ourselves as autonomous individuals is contributing to the environmental crisis, is it better to 1) use the passive tense instead, 2) write in a different language, or 3) modify our use of the active tenses so that they are more indicative of our socially and ecologically embedded nature? What would this look like?

One possibility that "I" thought of would be to enclose the first person pronoun in quotation marks, a trick favoured for various purposes in academia. However, doing this calls the word into question, but does not necessarily embed it, which is what we need for the active tenses to be an improvement over the passive ones[18]. Further, it does not address the role of the word, as subject of the verb in the English phrasal construction.

Another possibility might be to borrow or derive a new word from another language, one which highlights the relational nature of "me". This technique is also favoured in academia, although in our case it is not clearly feasible because the problem does not lie solely in the connotations assumed in the first person pronoun chosen, but rather in the relationship between the pronoun and the verb. Many languages exist that do emphasize relationality, however, they often concern one's place within human communities rather than biotic ones. When I have taught English to Lao students, the notion that separates conjugation exists for verbs acted by "I", "you", or "she" is particularly perplexing, not because they do not conjugate in their own language (they don't, but this problem is surmountable), but because the distinction between first, second, and third person is not made in Lao. For example, if a youngster is addressing me, he would never call me "you" or himself "me". Instead, he would say something like: "Can older brother come with younger brother tomorrow?" If I said, "yes", and he recounted our conversation to his mother, he would then say: "Older brother is coming

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[18] This has the same deficiency as Naess' capitalization of the letter "S" to indicate the ecologically-embedded Self (e.g. 1990).

with son tomorrow." As you can see, all of these relational terms can be used interchangeably for first, second, or third person, although, as words, they would be classified as the latter in English.

What this means is that one's place (in one's social setting) is continually acknowledged. There is a word "I" but it is almost always considered less polite to utter, unless to address people of the same age. What this also means is that one's self *as* situated or embedded in a social context is continually reinforced.

(Note: need to research: are there other languages where our ecologically situated nature is reinforced in our use of pronouns?)

BOOK II.

March, 2008.

1.

How can I start to write again? For two weeks, I have been submerged in work and have not managed to write so much as a sentence. I would, in my very brief interludes between building the girls' dormitory of our school and cooking food, finding fuelwood, watering the garden, and meeting with district officials, start re-reading passages from Abram's (1996) text, which I knew was an important in my analysis of the ecological impacts of writing this thesis. But I was too distracted worrying about how ecological my real-world life was and could not "get into" his writing as I had the first time reading it. I worried about the oncoming rainy season and the impact it would have on the adobe earth-building technology I had introduced to the area as I looked hopelessly at our still unroofed buildings. Why contemplate whether writing was "environmentally destructive" *now*? Wouldn't it be even more environmentally destructive for me to not address these immediately pressing concerns? The urgency I

once felt for fitting Abram's discussion of literacy into my philosophy dissolved into irrelevance. "And besides," I figured, "suppose I take his apprehensions to heart –then leaving the text behind for this time becomes all the more justified."

Finding wood to support the thatching for the dormitory roof was disheartening. At the school, we had made the decision that it would be more "sustainable" (do I mean "ethical"?) to find the wood from villagers instead of the government sawmills. Were we to buy from these sawmills, the wood would have arrived weeks ago and the building would now be almost complete. But the government takes away community forests to find wood, and uses the profits to fund a number of projects, which, according to some villagers, in part includes logging and the increased surveillance of communities living off of forests through increased police presence. Of course, deforestation is a consequence of any wood we choose to buy[19], but many of the communities in this area are quite poor and have been forced out of a relationship with their own land. We agreed that there were strong grounds economically, socially (and probably) environmentally, for supporting the local community instead –even if this means that the villagers illegally cut wood late at night when the police are not circling their land, making the entire process frustratingly slow.

2.

Daily, villagers have been asking me: will the adobe bricks stand up to the rain? I answer, with my *very* limited experience building in Thailand that they will, but that they need to be well covered. I doubt my trepidation is well hidden. So now, in my attempt to support earth-building (as an alternative to deforestation), I am potentially hijacking my chance of success by refusing to promote the government-led, centralized deforestation.

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[19] *Especially* that of fast-growing tree plantations.

Isn't this the same demon reappearing again in new cloth? By refusing to use writing, or APA, or computers, or government-run sawmills, am I potentially destroying my ability to really "make a difference"? Am I making a mockery of the very concept of an alternative?

With this hesitation emerges the victory of *strategy* (and logic) over conscience: "the ends justify the means." But isn't my desire to *live my curriculum* a battle against such despotic thought? But the usurper sneaks in so quietly, especially when I am feeling frail and incapacitated. Chet Bowers: I need a computer to tell you that computers are destructive. David Abram: I need an alphabet to tell you that literacy is destructive[20]. Me: I need to destroy forests to build a space where we can teach that we shouldn't destroy tropical forests. Can I move away from this trap in this thesis? Can I erect an ecopedagogy that I can live, rather than one that dies on the paper it is written on?

Gandhi, when did you *bend*?

3.

It seems the skill I was trained in most successfully throughout my undergraduate degree (in philosophy), and of which "scholarly" writing seems so much to depend, may itself be of only limited value for "ecological inquiry". The skill of which I speak is that of detonating arguments. This skill uses logical categories to break apart falsely made logical connections –and places undue respect and legitimacy on the timeless certainty of logic. By contrast, if we know that even logic originated as a bioregional language, that any logical principle can be cracked by widening its purview of application, and that (anyways) consistently rock-hard logical forms do not make a given argument either

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[20] Abram finds a way to sacralize and naturalize writing, and insists that it is possible to write such that it transcends the critiques he voices against it. However, I still find this argument much more unconvincing than his attack on it.

"truer" or more "ecological," then the desire to utilize such approaches loses appeal. It may be that even internal contradiction is, within some bioregional contexts, sometimes more "true". For instance, it is impossible to give a strictly logical argument to defend why life is worth living or the biosphere worth protecting, and any attempt to do so is bound to be defeated –like all those defenses of the "intrinsic value of nature". But that does not foreclose the necessity of our current struggle.

4.

I have noticed how frequently I have been using the verb "to seem". This has been fairly unconscious an activity. I do have ethical as well as epistemological reasons for wanting to qualify my statements in this way –the second skill I honed at university was the art of building arguments. To say, for example, that a given decision "seems" ecological rather than saying that it "is" ecological can allow me to make perfectly truthful statements (which is still a continual fascination within the university, often becoming even *more* intriguing for those familiar with all the well-known problems about describing "things-in-themselves"). It positions the statement from within the context within which I am an observer, but at the same time, neither eternalizes nor generalizes the perception. "Seem" originates from the Old Norse language, whose words from which it ascended mean "conform" and "befit". Fitting indeed!

5.

Let's revisit Antoinette's question: "Can you imagine another spirit other than the atomistic psychological frame you criticize in which academic writers might cite or reference each other?"

There seem to be ways that could reconcile some of the concerns I had. Let me re-

examine the issue: In some cases, I am directly influenced by another author and am conscious of the particular passage of text that struck me in some way. In such situations, I could mention the passage and at least frame my being influenced in a way that does not make it seem that I claim to know what the author "really" meant. Instead, I can focus on how that writing interacted with the ecosystem of concepts, feelings and actions that is "at" me.

The need to criticize the logical construction of an author's argument becomes superseded by the requirement that I consider how, if I take my interpretation of the text seriously, it might affect the way that I am living in the world. The "correctness" of another's assertions becomes subordinated to these concerns.

However, the dialectical nature of the interaction cannot be shown so easily in the static nature of "written" theses. There is no one *way* in which any idea makes me *be* – while some idea may temporarily re-enforce some sort of unsustainable behaviour, in the long-term, it may (though I am not claiming to be a Marxist here) do the opposite through the eventual effect that that unsustainable behaviour had and the subsequent reactions it caused in me. Or, an idea could re-enforce one pattern as it interacts with me now, but a different pattern as I re-interact with it at some point in the future (which includes some later draft of this thesis as well). These types of things can be shown in writing, but there is always the danger that I may wish to conclude, provide a meta-narrative, and thereby fix the type of interaction that is occurring. The dialectic does not tend towards any Hegelian absolute, towards any overall improvement, but merely reflects the never-ending chain of interactions of which a thesis, at best, can only be a "snapshot".

However, even in these cases, something artificial is happening: not only am I not giving proper acknowledgement to the myriad undisclosable influences that caused me to interact with *that* idea in *that* way *then*, but I am still not engaging in my interaction in a

way that is truly dialectic (which is to say, dialogical) –in other words, I am not really

letting the author respond. Of course, this is unavoidable for those who have passed

away. But perhaps letters and even electronic communication could open the kind of fluid

space, the kind of dynamic feedback loop that constitutes relationships, and which are the

fundamental components of ecological systems.

6.

When Heraclitus pondered whether or not the river we stepped into yesterday is

the same river that we step into today, he illuminated an important question for living

beings too: In what ways should do organisms' niches within ecosystems change and in

what ways do they stay the same? Although it may be unwise got us to learn how to be an

ecological by mimicking other species, there may nevertheless be something profoundly

important in what they tell us that also needs to be referenced in some way. Is it not true

that, although every species learns and changes in the course of its lifetime, that they still

fix on "truths" by which they come to live their lives? Is the difference between us and

them a matter of scope or rate? Is the amount that we can change at any given time,

compared with other beings, the major cause of our instability? Or is it that we change

the wrong things too fast and the wrong things too slowly?

It now seems to me that other species make major changes almost exclusively out

of necessity, whereas we have economic and cultural engines that catalyze abrupt non-

essential shifts (and with it, possibly, the construction of "free will"). And yet, despite our

skills at unmooring ourselves from our cultural patterns, it seems that this dire moment

evermore before us as a species, with all its surmounting evidence, cannot mobilize us to

change. The sensory extensions provided to us by science, adding confirmation to our

direct perception of the tangible liquidation of the biological landscapes surrounding us,

has still not yet provided the impetus for us to change paths. My friend, Ryan Hall (personal communication, 1999), once suggested that perhaps we are no different from lemmings running towards a cliff. As a species, we are beginning to see the cliff in front of us, but our momentum is so fast, and our reactions just slow enough, that all we can change at this point is the velocity with which we hurl ourselves into the air.[21]

And perhaps "sustainable resource management" is, in the end, not a human activity at all, but rather *population management by resources*. In the classic fox/rabbit consumptions cycles so often cited in ecology textbooks, did the foxes ever effectively manage themselves to avoid overpopulation and the subsequent crash in their food source? The textbook example is mechanical and simplistic –the foxes would move on to some other, less tasty, but still edible species[22], or move away altogether. The shift to bamboo technology, as seen in the cutting boards, parquet flooring, towels, etc., in recent years, is a good example of this: it was not a consumer-choice that led to the changes so much as it was a resource-led necessity. The higher quality woods that were formerly sought out have become too expensive or scarce.

In my experience in Laos, the softwood species, Mai Bak (*Anispotera robusta*) went from being considered "low-value" a mere six years ago to being considered "good quality" now. Of the remaining large trees in the degraded forests today, it is now superior (indicating the rapid deforestation over the past decade). Much of the wood we

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[21] July note: I have been back in Canada for 2 days. A CBC *5th Estate* episode my brother was watching this evening explained that this well-known lemming behaviour was actually fabricated by Disney. Then perhaps we (along with the mitochondria powering us!) really are alone.

[22] The villagers of *Houa Khoua*, where I live, often provide an interesting explanation for their reasons for moving from their original habitation, several hundred kilometers northeast. Apparently, a staggering increase of tiger attacks occurred within a very short time, impelling an exodus. An ecologist later explained to me the plausibility of this story: it was likely that the wild deer and other fauna that the tiger was accustomed to eating had grown scarce from their overhunting. The tigers thereby sought other less delectable food sources.

ended up finding for the rafters of our earth-buildings was just this.

Resources ultimately manage populations, and essential non-substitutable resources kill races and languages, species and genera. Nevertheless, the way I keep falling back on this issue is like this: even if it is extremely unlikely that we will be able, through agency alone, to move towards sustainable ways of living, we will never be able to prove that this grim future is a certainty. We can always act on the principle that the future is open-ended. Even deterministic arguments can lend our sense of agency a function: we have evolved a sensation of agency, which, in turn causes us to act in certain ways. Whether or not we actually have agency is irrelevant. We must act as though we do simply because it is likely that we have co-evolved within our contexts based on behaviour that relies on this assumption[23].

7.

Much has been made about the so-called "electronic community", both in praise and condemnation. I have been, until now, receptive to many of the criticisms and concerns put forth against this concept as I have felt them coincide with my own reservations. But then I came across this thought: Isn't referencing or citing another author's published works even more disembodied and artificial a community[24]? What if I instead referenced online conversations I had had with living scholars as my main mode

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[23] September note: Bateson would agree with my idea of co-evolution (he notes that consciousness is "an important component in the coupling between" people, society and the environment). However, he warns that "it may well be that consciousness contains systematic distortions of view which, when implemented by modern technology, become destructive of the balance between man, his society, and his ecosystem" (1972, p. 440).
[24] Upon reading a draft of this thesis, Rick Kool, my program head, commented: "Citing an author brings them alive, in some degree, to me... brings them into a room with the writer and reader, and if the writer has done a good enough job of understanding, can be very present to the reader." (R. Kool, personal communication, August, 16, 2008).

Yes, but I am still bringing into the room a fixed snapshot of an author who has not responded "live" to me.

of engaging with academia, while still writing this thesis using a paper and pen? How would Bowers or Abram respond to an email within which I voiced my interpretation of how their work affected me?

Then how do I become bioregional in my writing? I am living in Laos, with a constellation of foreign ideas in my mind and in my library downstairs –ideas which I suppose have become local by virtue of their being here, but which perhaps require computer internet services for me to interact with in a dialogical manner (even if I decided to telephone Bowers and the rest of them, I would still need to use the internet to find their telephone numbers).

While scornfully mocking myself all the while, I feel strongly sympathetic to this quote that I found *online,* in an article by Wendell Berry called "Why I am not going to buy a computer"[25]: "I would hate to think that my work as a writer could not be done without a direct dependence on strip-mined coal. How could I write conscientiously against the rape of nature if I were, in the act of writing, implicated in the rape?" (1987). As receptive as I am to this, the notion that "the ends don't justify the means", as indicated here by Berry, can easily be demolished simply because it is *physically impossible* for most people to live in environmentally-neutral ways. We are all tied into infrastructures, land-use patterns, and knowledge-types that are killing the planet –and which would kill us if we were to abandon them outright. As emotionally inspired as I am by Gandhian no-compromise positions, I do not see how selectively choosing certain pro-environmental behaviours to carry out without reservation (at the exclusion of a multitude of others) will do us any good when we are submerged in such an encompassing problem. To be more specific, I cannot see the dividing line between Berry's ecological *satyagraha* and his ecological violence. And yet, I find the logic of strategy shameful. Perhaps the

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[25] I have since even added the quote to my "Facebook" page.

question can more successfully be framed: does this technology, this knowledge, or this change in infrastructure lead us towards, what permaculturalist, David Holmgren, describes as "a graceful and ethical descent" (2001, p. xxix)[26]?

Perhaps we can look at it in this way: at any time there is a generally accepted range of social behaviours, of varying degrees environmentally destructive. There is also a range of non-normal behaviours that are feasible from within our current infrastructure but not practiced (for various reasons), that move us towards less destruction while also being less destructive. To try to become more ecological means to try and discover what this range is and base one's actions within it. Once an activity has become mainstream practice, it means that an infrastructure has developed to accommodate it and that I can begin re-exploring again to find the new feasible range of non-normal behaviour. A good example of this is the growth of organic foods. What was once a rather difficult commitment to make has, through the normalizing efforts of a small minority, now become an acceptable and commonly spoken about consumer-choice. The time is ripe for a commitment to genetically diverse cropping systems, grown in local agro-ecosystems, for a refusal to eat foods processed or cooked using non-sustainable energy sources, or packaged using non-recycled materials, and so forth, on top of organic foods. We are still living in a time when one who says the following would be looked upon strangely: "No thank you. I can't eat these crackers because the manufacturer hasn't confirmed that the packaging doesn't come from old growth forests." And for this very reason, it is all the

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[26] The permaculture approach can perhaps answer some questions as to whether or not a given approach should be pursued: "in general, the best use for non-renewable resources and technology should be to establish a system, rather than to maintain or harvest it, even if the "establishment" process is a gradual one that takes place as a transition over a lifetime (or even generations) (Holmgren, 2001, p. 48). August note: In this thesis, it seems I am establishing some systems (say, for example, an "environmental education research methodology") but am maintaining others (the academic tradition, etc.). It would be useful in future research to look into this issue more closely.

more essential that some brave souls continue to stretch the realm of human behaviour into this dimension. The great artistry that is required here is that the speakers not portray themselves as ethically superior, overly eccentric or overbearing –but rather that they commit to the parallel requirement that they live within non-normal spheres of action while simultaneously making attempts to discover more and more appropriate ways of communicating such choices. Whether the observer is attracted to or repelled by one's rationale depends on factors much unrelated to the quality of one's argument, making pedagogical approaches more fitting to couple with non-conformity. What should above all be avoided is defense, which is a clothed form of attack and a tool for polarizing rather than leading.

So, some criteria are beginning to emerge by which I can investigate whether or not a given approach to thesis writing should be pursued. Firstly, one may ask, is it possible to *live* what is being proposed? Secondly, is it a substantial step *towards* ecological living (or, how much does it break with established behaviour-)? Thirdly, can it be enacted in a way that is pedagogically appropriate?

.8.

I still have not established a means of differentiating between approaches I should severely limit and those I should abandon altogether, nor have I come to any conclusions as to when it is appropriate to articulate *what* I am doing. I have also not tackled the problem that immediately arises out of my prior discussion of non-normal behaviour: should I attempt to push beyond accepted boundaries in *everything* I do? But *every* word of *every* sentence is already an action, as is the fact of writing itself. Should all of these things and all of these instances be pushed? For example, my using ink, my using this notebook, my using English, my using words and grammar- are all "normal" behaviours.

Should they all be challenged in this essay? (By "challenged" I do not simply mean "problematized", but investigated, and if need be, replaced or removed). If not, then how do I decide what to treat? In my thesis proposal (Affifi, 2007), I had written that my selection of topics would arise on its own –but how does that prevent me from tackling rather superficial aspects of thesis writing, under the semblance of ecological rigour while leaving more important underlying ecological issues unexamined? Even, perhaps somewhat dishonestly, unmentioned? To be more specific: if I am putting forth the notion of *being ecological* as a research methodology, then how can I assure ecological "validity"[27]? Or, at the very least, evaluate it?

9.

Perhaps, after writing my thesis notes by hand, I will compile and then edit them by hand and only use the computer to type the final draft. As far as Internet use is concerned, I would, as far as possible, only use it to communicate with my supervisor and with a small selection of authors that I have read and feel the need to interact with as *living* beings. I would try to find their telephone numbers so that I could speak with them directly. And what about online journals, databases, e-books, etc? Although I already have an enormous quantity of downloaded files on my computer, can I actually commit to not using it to seek out other relevant material? And what sorts of limits should I put on the material I have already downloaded? And would it be more "ecological" to print out those relevant documents or to read them on my laptop? And would academia accept a thesis that did not "sufficiently" engage with existing literature for ecological reasons? And if not, should I accept, and try to enter into such an academia?

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[27] In this essay, I use the term "ecological validity" in a sense more parallel to Lather's (1991) "catalytic validity" than to the way that "ecological validity" is usually defined. Ecological validity here refers to the extent to which research or a given aspect of research was conducted in a manner that is ecologically sound.

These are important questions. It is considered scholarly practice if I make reference to all those before me who have thought about the issues that presently concern me. The MEEC thesis handbook is quite explicit about this, advising researchers to follow this guiding question: "Have *all* key resources (i.e., books, articles, ERIC documents, dissertations, internet information, etc.) relevant to understanding this topic been found?" [italics added] (p. 20). In the section on "Thesis Quality Standards" it is further posed: "Did the literature review consider all appropriate sources of information?" (p. 25). Perhaps there is some researcher out there who has already researched *as a thesis topic* about how many hours it would take for the average social science scholar to "consider all appropriate sources of information". Having just now considered this possibility, should I now try and discover whether or not someone has already done that? Such comprehensiveness means, in practical terms, more trips to the library and more hours on the internet. And in the end, the search is bound for failure because almost everything can be relevant to understanding everything else. Knowledge is not to be partitioned, and it is the very art of great scholarship to bridge fields formerly approached as unconnected. Nevertheless, in an attempt to appease whoever is judging these "quality standards", the infinitude of the task is quietly not considered, and the researcher can spend more fossil fuels to add (hide behind?) one more name on this or that page of their essay.

But can't mastery of a subject be shown without connecting every one of one's thoughts to other scholars? In fact, can you even think of a single great writer in history who has utilized this strange, fragmented format that has nearly become ubiquitous in the academic world? While this technique, which I call "hyper-referencing" has exploded since the late part of the twentieth Century; even most of the influential postmodernists avoided it. I do not think that this practice has been accompanied by an increase in

interesting, relevant ideas or dynamic writing. With the explosion of academic writing, the academic process has become more and more one of "knowledge management" and the final result almost invariably seems to me, to borrow a common expression, "a mile wide but only an inch deep".

And often enough, a breadth of review distances us from the unique insights that our particular situation can afford us. After praising Nietzsche's psychoanalytic instinct (as quoted above), Freud qualifies: "I have long avoided [reading his work] for this very reason. After all, I was less concerned about any priority than about the preservation of my open-mindedness" (quoted in Kauffman, 1950/1974, pp. 182-183). In our new language, this means that reading works of those on similar paths as our own can channel us away from what is so unique about our context and can always therefore be a potential threat to bioregional inquiry.

Still other hyper-referencers are less attentive to comprehensiveness than with politics. Patti Lather, I am noticing, is just one such example. She writes: "In my own writing, the accumulation of quotes, excerpts and repetitions is also an effort to be "multi-voiced," to weave varied speaking voices together as opposed to putting forth a single "authoritative" voice" (1991, p. 9). In her description of the importance of *bricolage* in writing (which she defines as an "oblique collage of juxtaposition" (p. 10)), Lather cites "pastiche, montage, collage, bricolage, and the deliberate conglomerizing of purposes" (p. 10) as *characteristic* of postmodernism.

Of course, I have just argued that connecting what was once seen as separate is a sign of being a good ecologist as well as a good scholar. But can the already frail ecosystems handle the acontextual, non-historical and erratic behaviour that comes out of the "oblique collage" of ideas of which she speaks? I agree with Lather that the objective, cool and rational, unified voice of a Newton or Kant is a masterfully portrayed rhetorical

strategy that needs to be dethroned. However, I do not see Lather's hyper-referencing or hyper-quoting as being the only, or even as being a desirable way of going about this. Even if she had written the *entire book* as a series of quotations one after the other, she would still not have succeeded in repelling the very terms she wishes to avoid (such as "the Great Interpreter" and "the master of truth and justice", after Dreyfus and Rabinow (1993) and Foucault (1997) respectively), precisely because her interpretation, and her sense of truth and justice would all have gone into the selection of the quotes comprising the book. But, more importantly, the very act of couching oneself in the company of a latticework of influential names seems to me to be above all purposeless. We come at another's work from a unique bioregional historicity. What need do we have in skimming through weeks and months worth of writing in order to extract quotes that superficially converge (or even superficially diverge) with what we are in the process of enacting? How will this practice help develop knowledge? How will this practice help us recover the path to ecological sustainability? It seems to me that a few, carefully chosen writers can provide a sufficient "shoulder" for us to stand on. Of course, it may be argued that, at least for Lather, she truly is engaging in "making explicit [her] authorial agenda, [by] subvert[ing] those responses by foregrounding how they were induced" (Lather, 1991, pp. 10-11), and that her thought really is made up from a collection of isolatable quotations. I am sure that some academics really have reached this diseased state, one that sees a unidirectional causality from text to mind, and one which humans are capable of articulating. Regardless, many Master's students, including myself, have not yet come to believe that our minds have been (or should be!) birthed almost completely as a result of a weaving together of prominent academics words.

And, even if some sort of "weaving together" has indeed occurred to bring these words to life in front of you now, humans are epistemologically bound to be poor

accountants on this front. I have mentioned this already —we are trained to value some influences over others, while reconstructing the building of one's mind according to logical schemes and temporal orders that need not bear any similarity to how we now have the mind we have. The very process of trying to reconstruct a story of this weaving together smells of the same ink as that of the Master Interpreter, the same epistemological fallacy that assumes that what *is* and what can be talked *about* are the same thing, and that rejects tacit, subconscious, or even forgotten influences.

The requirements that the academic sources be thoroughly sought out and responded to is not only elitist, but 1) an inaccurate portrayal of our influences, 2) an energy-intensive activity that rarely leads to long-term meaningful advances for humanity, 3) disruptive of the poetic nature of the text (which is not only miseducative, but also dismissive of the ecological principle of temporality), 4) gives a false sense of humanly achievable completeness, 5) re-enforces the assumption that words and ideas can be taken out of context (dismissive of the ecological principle of nestedness (and if meaning really has changed by my choosing them, or by you reading them, then why reference?)).

10.

Hyper-referencing, which is part of Lather's writing method, requires computer use to cut and paste together, which explains her acknowledgement to "the goddess of wordprocessing with whom all things are possible" (1991, p. xiii). This is because hyper-referencing requires that we go back to various passages each time we come across some other source that we can fit in. The essay gradually grows heavier from the inside out: with wordprocessing, there is a hole between every word, within which another citation can be continually inserted in retrospect. We could say, alternatively, that computers

created hyper-referencing[28].

While a hand-writer also accumulates "stuff" to insert into a later draft, the physical nature of this process, both much more paper and time consuming, tends to limit the gusto with which this is undertaken to a select number of essential points. The cramping hand will simply not allow too much unsettling.

11.

There seems to be a language that social science writers feel that they must conform to in order to prove that they have reached the necessary sophistication to tackle "postmodern" problems. I have noticed myself trying them out often enough. A few of the words that appear with almost industrious frequency are the following: contested, inscribed, disjuncture, foreground, totalize, disrupted, undergirded (this totally ugly word probably originated through scholar's boredom with the earlier, overused "underpinning"), problematized, diaspora, interrupt, displace, liminal, informed, rhizomatic, reification. The prefix "post" becomes quintessential even *as* writers make much of the myth of "linear time". Licentious use of slashes, such as fact/value or power/knowledge, and parentheses in order to (de)legitimize selected prefixes are also common. A predominant concern with "representation", with "positionality", with "textuality", or with "foundational uncertainty" has ascendancy over all discussions of "power".

Because of an assumed though unrecognized belief in cultural teleology, today's

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[28] Rick Kool pointed out here (personal communication, August 26, 2008) that the Talmud was heavy hyper-referenced and yet came about long before computers.

I think there are many examples of works that were gradually written by numerous authors over time that become more and more referenced. If we consider the evolution of knowledge as a whole, it is also incredibly referenced. However, individual authors working on individual pieces have tended to reference more and more heavily as the means of doing so has become easier.

researchers working outside of the positivist tradition tend to use this type of language, to respond to the likes of Foucault, Derrida, Lyotard, and Baudrillard. The "textuality" of one's being is assumed, and those wishing to pursue other pathways are generally considered "naïve", having to argue their way out of textualism as though it were something unquestionably primordial (hence apologetic manner of many phenomenologists and critical theorists).

While I accept that my mind has been historically conditioned, it has certainly not developed in the ways that accord with the overall movement of "Thought", and I see no reason why their concerns need to be addressed to produce novel and important work defying what we now call "modernism".

12.

Suppose I chose to quote this passage:

Scholars, who at bottom do little nowadays but thumb books ... ultimately lose their capacity to think for themselves. When they don't thumb, they don't think. They respond to a stimulus (a thought they have read) whenever they think –in the end they do nothing but react. ... The instinct of self-defense has become worn-out in them: otherwise, they would resist books. Nietzsche (1992, p. 709)

By quoting this, I would add one more dimension to my analysis of modern writing practices, which surely suffer from the deficiencies that this author brings to our eyes. But what else have I done? I have associated myself with Nietzsche (which is always dangerous) and with *Ecce Homo* in particular, which is one of his last and most egocentric books -before the collapse of his sanity. This quote was found after I decided to draw out some concerns I had had with scholarly material earlier today. The quote

certainly adds a provocative dimension and certainly complements my previous mention of Freud rather nicely (it even begs us to wonder whether Freud was all that "open-minded" even in his tribute). It is easy to connect how, if indeed bookworms suffer these shortcomings, reading can thereby train our sensitivities to be narrow, blunt, oppositional, and inappropriate when interacting within the complexities of socio-ecological space. Reading can get in the way of living.

But would I need this extra push, that extra line of attack? Has it made, or could it make my paper stronger by inserting this foreign idea, threading it into my argument, and ignoring the context from which it arose? As long as we accept "bricolage" as a helpful practice for scholarship (in whatever "moment" Lincoln and Denzin now say we are "in"), we are depending on *strength in numbers* –in the number of people we cite, and in the number and type of arguments we give.

But the ultimate judgment of whether or not *anything* can continue to exist rests in its survival skills. For academics, who have never had an argument last unrefuted for very long, despite all the elaborate buttressing they have been fastidiously trained in, this might mean taking a completely novel approach. It might require asking: "What does my evolving idea need to become in order to survive for 100, 200, or perhaps even *1000* years?"

Such questions require one to think about the interactions of that idea in the world, where the weeding-out process does not merely occur through academics finding holes in arguments, but which is instead conditioned upon living situations, which may require, resist or modify the "truth" under question. Nevertheless, it seems clear to me that a "truth" that does not promote ecological stability (in a sense I will leave you to decide) will not be believed in 500 years, no matter how compellingly airtight the author has presented its logic and foundations, nor how up-to-date is its epistemology or

terminology. For that reason, I question the need to pursue academics-as-usual. I found a passage in David Abram's book that eloquently describes the goal I have in mind here:

> A human community that lives in a mutually beneficial relation with the surrounding earth is a community, we might say, that lives in truth. The ways of speaking common to that community – the claims and beliefs that enable such reciprocity to perpetuate itself- are, in this important sense, *true*. They are in accord with a right relation between these people and their world. Statements and beliefs, meanwhile, that foster violence toward the land, ways of speaking that enable the impairment or rumination of the surrounding field of beings, can be described as false ways of speaking –ways that encourage an unsustainable relation with the encompassing earth. (Abram, 1996, p. 264).

Alternatively, persistence may be exactly what we are trying to avoid for some of our new truths. It may even require the evolving idea to evolve itself into obsolescence upon doing what it was required to do.

For some, my work may appear as just another "orientational" methodology, and I am sure there are those who would argue that I am just trying to expropriate epistemology from its rightful owner, to which they will counter: "Yes, but how do you *know* that your ethics are "right"?"

First of all, I do not believe "ecological inquiry" is an ethical issue in the slightest, and that to reduce it to such immediately curtails its potency. There are a great number of scientists and other thinkers who see ethics as a constraint that prevents discovery, with its only relationship to epistemology being that it imposes restrictions our ability to know. Ecological concerns are not of this nature because the very possibility of our being able to *discover* and *know* rests on the precondition that we are alive, which in turn requires

ecosystems. Thus, *protecting ecosystems is an epistemological act*. Of course, ecosystem protection is even more fundamentally an ontological affair- to put it bluntly, ecosystem health is a matter of life and death. However, the fact that our "license" to know is held in such high esteem that it is allowed to damage the very foundations upon which our existence is based indicates an extreme epistemological error as well that needs to be rectified[29] (in the spirit of such an enticing change, let me put forth a catchy, though possibly lame pun: *being is becoming*![30]).

Thus, I understand that pursuing inquiry, whether quantitative research steeped in positivistic methodological assumptions, or openly ideological and value-laden social science, the question of ecological sustainability needs to be addressed and the struggle towards its resolution enacted within whatever distinct research situation arises in each and every context. I am not promoting Lysenkoism for the ecological era: what concerns me is the possibility of science not the politics of it. This is because the ecological issue is pre-epistemological (and therefore pre-discursive) and pre-ontological.

13.

My goal in this thesis is to make some steps towards living the essay format as an "environmental education curriculum" that I am presenting and to move towards making it a positive one. Through doing this, I hope I can train myself so that I can, in the future, better conduct either quantitative or qualitative research with greater ecological sensitivity and awareness of the pedagogical aspect inherent in it. But I also hope to teach something. Lather writes that we should "consciously use our research to help

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[29] Such absurdities have their philosophical face: epistemology is valued over ontology everywhere. Kant himself demoted Being to a category of understanding that was not necessarily in the world itself. He did this in order to secure the foundations of our knowledge.

[30] Or, as Rick Kool (personal communication, August 21, 2008) suggested after reading this, the more alliterative albeit normative, "being better be becoming".

participants understand and change their situations" (1991, p. 57) and she spends a great deal of her first book trying to find out how to do this in ways that will not assert her authority or hegemony as a researcher. To take the spirit of this quotation in its proper context and use it for my present purposes, I could perhaps try to emancipate my readers from their insufficiently theorized and exploited positions as consumers and destroyers of our natural world. In this case, I could frame my argument such that Capitalism, Eurocentrism, Patriarchy, Grand Narrativism, or whatever else, is presented as the "exploiter" from which I am seeking to "free" or "liberate" my readers. Their enchainment could be established by citing "ecopsychologists" who point to the spiritual dearth and existential malaise instigated by the decline of our natural surroundings. In the end, though, I would be caught up in the same dilemma that Lather continuously toils with: the emancipator cannot emancipate. However, my project is different. What I hope to teach is simply that the struggle is necessary, especially so for people explicitly labeling themselves "environmental educators", and that the struggle involves trying to figure out what it means to *come to know* in one's unique bioregional context. I do want to help my readers understand and change their situations, but whether or not this is described as a process of "liberating" is not my present concern[31].

14.

There appear to me two general types of "environmental solutions" that people ascribe to. The onus for environmental change is either placed on the self, or on the self's context. The first case is exemplified by liberals, capitalists, Judeo-Christian religious groups, and by the Enlightenment generally; the latter by Marxists, fascists, technologists and scientists who see the universe as "deterministic". The infirmity that is caused by

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[31] Antoinette (personal communication, 1 August, 2008) suggested I think of my task as being "to provoke" in the sense of *calling forth.*

focusing on one or the other reveals the inadequacy of unidirectional thought. The bridge

between these is potentially best achieved by systems thinkers who accept the causal bi-

directionality between us and the systems within which we are nested as a first premise

underlying any framework of understanding. I say "potentially" because most systems

thinking does not really promote the kind of radical flexibility of thought between self

and context, and generally fall back on one or the other as an eventual, if not explicitly

stated, meta-assumption.

15.

'Language speaks through us' as we speak through language. We can choose a

particular writing style on the basis of how we perceive it to transform us. What does this

mean? Between us and our worlds lies the eternal paradox which defines humans, and

once again appears before us as a problem that we need to somehow solve: we are always

both free and unfree; *autonomous choosers* condemned by our linguisticity and

historicity. Perhaps this is the fate for all beings on Earth, though it is ours alone to know

it, and to live this paradox that becomes increasingly liberating and oppressive the more

we think about it. But let's just take it as a fact now, i.e. that there is at least the

unshakeable appearance of bidirectionality at the root of our continual 'becoming', and

let's leave the task of describing the particular nature of this relation to another. For now,

let's assume as our working hypothesis that our historicity creates our decisions and vice

versa. For the task of 'becoming ecological', we can work from either angle: 1) directly

choose, fully embracing the sense of agency inscribed in our grammatical constructions,

using pre-existing and pre-available given world structures to achieve given aims (which

we may also accept as historically conditioned, if we wish), or 2) re-form our language so

that subsequent history unfolds differently.

16.

Those who claim that everything has been mediated by language and that concepts such as "nature" are therefore "socially constructed", speak as though it is impossible to find anything that has not been in some way "humanized" (Blühdorn, 2000, is an example of this).

If we grant for a moment that this is the case, we are at least encouraged to admit, when we think about our relationship to language, that it was not *us* who chose to construct grammar in this or that way, it was not us who decided that a concept such as "nature" should exist, and exist as something that is thought of as Other (i.e., conceived as something not wholly conceivable); indeed it was not us who birthed the very possibility of language, society, or the elusive dance between "culture" and "nature" in the first place. Rather, all of these apparently human projections are in fact projected *onto us* –isomorphic with the old existential dilemma: 'we are condemned to be free'. What it also means is, that at our very core there is a deep wilderness, an Other that "we" are in relationship with, can revere or fear or ignore, but can never understand.

17.

I expect that, should my paper "succeed" pedagogically, various discussions will arise. One of these would be the debate as to when it is acceptable to do something "unecological" for the long-term goal of being ecological. This would surface out of people's rejections of my position concerning "means" and "ends". If others reach different conclusions, so be it: what is crucial is that the debate about the issue be brought into the open and that we collectively begin confronting the academic prejudice that favours ends over means. On the other hand, a failure would above all mean that its influence be confined to debate, as my irrepressible drive is to connect thought with action and to share this reunification. Such a response would be more tragic to me than

no response at all.

18.

Scheurich (1996) criticizes Lather (1991) and others' attachment to forms of validity that dualize, by creating a group that is valid (in her case, "sufficiently" emancipatory) and a group that is "invalid". He connects this tendency to what Foucault calls "regularity" and to Nietzsche's insistence that a "will to power" fuels Western production of knowledge. What can I say here about "ecological validity"? Does it fit into those postpositivist types that he claims have not distanced themselves far enough from classic, empirical science, and its tendency to control?

I do not think it is necessary to even use the words "ecological validity", though they may serve as useful metaphors for tracing out ecological inquiry. However, in the preceding pages, I wrote some ideas about what it might mean to "be ecological" (Book II, 7). I asked myself, "is it a "substantial" step?", which itself poses the regulative and hegemonic dualism he speaks of –maybe. If I only claim to use this sort of either/or logic to propel myself towards new ways of living and teaching, and not to assess others, then in what ways is this term hegemonic? I do, of course, think that others should establish working definitions of what it means to become ecological in their contexts as well, but I am incapable of speaking of what forms those thoughts will take. Scheurich's "multiplicity" corresponds with the ecological need to create "bioregional", or "locally-appropriate" knowledge constructions. My comments on the writing of others, and their comments on mine (at least with respect to such ecological considerations), can only serve to suggest or broaden perspectives –not to discredit. The "collaborative" nature of inquiry becomes a longer term strategy then what typically concerns action researchers, who are chiefly interested in the collectively that occurs within the borders of a given

study.

BOOK III.

April, 2008.

1.

Ends justify the means- and even in this great issue, which is probably the greatest puzzle ahead of us on our path toward eco-logical living, the "prisoner's dilemma" emerges again as our chief challenge[32]. If all scholars chose to unanimously abandon unsustainable practices, academia would blossom forth in new directions, and the "sacrifices" or "constraints" we made on our (short-term) ability to know would scarcely be suffered. However, as long as there are some, who feel their articulable message is of such importance that it can "make up for" the short-term damage it has caused, perhaps in their view by providing a "key" to the future –then academics who wish to carve out this new path of living are at a "disadvantage". The "seriousness" of such a work would still, in such a scenario, be gauged against those who argue their theses according to pre-ecological epistemological and methodological modes. And since the predominant concern of these scholars is to win logical jousting matches, the rhetorical push of their arguments will probably keep academia thoroughly pre-ecological for some time to come.

2.

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[32] There are several different versions of the "prisoner's dilemma", discovered in 1950, by Dresher and Flood of the RAND Corporation (Hofstader, 1985, p. 715). The basic idea is like this: you and an accomplice have each been thrown into separate jail cells and cannot communicate together. The prosecutor offers you each a deal in private: if you both claim innocence, you will both get 2 years in jail. If you admit guilt and help prosecute your accomplice, you'll get out free, while your accomplice will get 5 years. But, if both people admit to the crime, each of you will get 4 years. What do you do?

A marriage of "means" and "ends" – Each time I reflect on the actual or potential outcomes of my actions in my quest to "be my ethics", what am I in fact doing? Sometimes I begin to perceive some longer-term effects of an intended outcome and, by accommodating this new knowledge, begin to act towards these effects as a *new* end. In other words, I recognize that what I had thought of formally as an "end" was actually but a "means" towards some other end. Other times, I might begin to recognize that the "means" which I have been using to achieve a given "end" are themselves the sources of effects reaching far beyond the scope of my intended goal. In such instances, I must modify my "means" so that they align better with my desired ends. Since "time" is conceived as non-ending in the first situation, and infinitely divisible in the second, this reveals an irreconcilable divide between the finiteness of human goals and the unboundedness of temporality. Such reflections may lead us to see that every possible instant is always both a potential "means" and "end" -confronting the metaphysical dualism that has formatted our conscience and our ethics for centuries.

3.

What seems a most cherished goal in academia is that of establishing one's individuality –and to show how this individuality came from, and yet goes beyond that of all other thinkers previously concerned with similar things. Perhaps for the same reason that Chomsky (1986) showed that there are infinite number of utterable sentences- the "generative grammar" of our own language guarantees that there will be a limitless number of positions, differing in degrees, or shade, or hue –so that those needing this type of uniqueness are virtually guaranteed of it, given that they have enough endurance for the task. However, there is an even better reason to seek particularity than that of creating one's identity: our thought *should* be individualized by our bioregional contexts.

This already necessarily occurs, as we see in the diversity of languages, religions, farming practices, etc. However, and this trend has been going on since long before the era of so-called "globalization", the opposite push to standardize thought (and behaviour) across greater expanses of space has also been occurring. Within the "fact" of language itself, with, on the one hand, its words re-enforcing the appearance of generalized meanings across time and space (and hence the foundations for the appearance of linguistic communication and understanding) and, on the other the continually splintering, realigning nature of meaning, we see these two forces in persistent, dynamic tension. Thus, the goal of becoming bioregional is not realizable completely, indicating that "bio-regional" is itself an idealized (and hence not bio-regional) concept –which cannot exist in its pure state for those who have learning, memory, or symbols (all of which are shortcuts where we impose the pattern of another time and place onto the present). That being said, the movement towards bioregionalism seems to me the required historical shift to remedy our ecological imbalance. But how do we (or should we) avoid ushering in the misunderstanding, potential intolerances and disunion that arises through re-tribalization (and which is a part of academic bickering as well)?

<center>4.</center>

I have had several strong urges recently, as my page notes are becoming lengthy and unruly, to amalgamate what I've got so far on the computer. It virtually felt like homesickness. I almost began doing it yesterday, when, in a fantastical fit of technological nostalgia, I thought about how clear and organized the progression of my thought could become, how much more polished and appealing I could make my words and sentences, and how much fresher my perspective on where to go from here could be. Then, I remembered the second draft of my grandfathers' incomplete manuscript, his

commentary on Ibnu 'l-Arabi's Sufi text, *The Bezels of Pure Wisdom*[33], that I had been reading during the summer of 2007. He had handwritten the first draft, and from that he compiled a second one, which he had typed on a typewriter, and annotated with additional handwritten comments in the margins. Drafts in this era were of such a different affair than they are now. I feel completely untrained for the task, having used computers for essay writing since high school. Nevertheless, a notebook was given to me during a meeting the day before yesterday, which I envision is appropriate for my second iteration (and whatever exactly it is that I end up "allowing" myself to do at that point). The journey back to my real home requires courage. What I lack in experience I must supplant with resolve.

5.

It is difficult to imagine that those reading this thesis will not expect me to make some sort of assessment eventually as to whether my research has been "environmental education". Suppose I say that it hasn't been adequately so, then doesn't this mean the "thesis writing" is not complete yet because that very assessment means I have realized other steps I should take? Suppose instead that I eventually find the entire task unattainable –in this case, why did I even bother finishing it, caressing in all my final-touches into a work I knew was against life?

Or, suppose I say that I have succeeded (that I have let myself believe in a concept called "ecological success") –isn't that precisely the kind of complacency and self-satisfaction that I have been fighting against?

And yet, I have already concluded that others will not be able to properly assess how "ecological" I have been, their living in different bioregional contexts. I myself may

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[33] Written as the Fususu'l-hikam, unpublished text by A.E. Affifi.

not be able to assess such things either --what I once was, I am no longer. So perhaps the question as to whether or not I have succeeded is the wrong one. But what is the "right" one?

6.

Twin boys, discussing how we should live, fell into dispute. In an attempt to resolve it, they sought knowledge from the voice of the forest, to which they pled. The first one asked: "Why must a term be defined once introduced? I realize that this practice encourages critics to pick apart unreasonable or lavish usage, and it also allows the writer to perhaps shed some of the reader's preconceptions. I also realize that for the researcher, it allows a framework with which to recast other phenomena, and is therefore a generative activity. It may also display some sort of "intellectual honesty": the clearer a concept is defined, the less likely the author is able to come back after criticism and deny that *that* was what he or she really meant. But, having said all this, I also know that no concept remains static over time, so it is already artificial to suppose that a thesis should require such constancy. This constancy means that the paper has become "atemporal"- it is trying to crush the specificity of each changing moment into something that has duration- and so may be thought of as 'ecologically dishonest.'"

But before the forest had a chance to reply, the second one broke out: "And yet, is learning, which all animals and plants can be said to do, not a movement towards generalization, to what the psychologists call creating "schemas" --and therefore no different in kind from concepts, with their orderly behaviour? Niches, without which no "ecosystem" could be said to exist, are in part the very predictability that life displays and also comes to expect. Could an ecosystem even form without schemas? What makes *words* so different? Couldn't it even be said that the open-endedness of language, with its

capacity to generate ever-new conceptual possibilities, holds for us the promise of truly letting "each changing moment" be what it is? In this case, are we out of sync, not because our words are too sluggish, but because they evolve too fast?"

7.

People are now accustomed to state their genetic and social context when writing "progressive" research. But instead of simply hearing that someone is a "white, middle-class, heterosexual, female," isn't there contextual information that is perhaps even more relevant? How about: "I took three airplane flights, fueled my research with plantation coffee, at times valued my research more than my children, etc." This information would lay bare the social and environmental costs of the research, as opposed to being a mere invitation for readers to categorize us according to the very same concepts that we (and the poststructuralists) are seeking to de-essentialize. And such a "laying bare" would expose our contradictions to ourselves while inviting others to do the same.

8.

I would like to add a point to Scheurich's (1996) association between postmodern and positivist conceptions of research validity. Popper's (1963) notion of "refutability" is alive and well in both of these types of validity: even the postmodern researcher still seems concerned with the need to outline under what conditions their work would fail – he or she often prescribes the types of validity that they see as "relevant" to their study, and spend a great deal of time showing why this is so. I don't see why "ecological validity", if it should be allowed to exist, need follow this type of practice –at least for the present study. Instead, and in keeping with the great works of art and thought, "ecological validity" (and, though they aren't really separable, "educational validity") needs no

argument: such works will be affirmed by how they interact in the world. Only its outcome is a condition of refutability.

9.

Since "thesis writing" is an educational activity, it is also an aesthetic one – because we are concerned with how it *stirs*, with how it "means" non-textually. Our writing style evokes such meaning on levels we are often unaware. Referencing by putting the author's last name and a date in parantheses, as is required by the APA, has a type of aesthetic different from footnotes (and different again from earlier writers who simply mentioned the author's name, and let the dedicated reader go and find where and what book it was in). APA requirements, for example, *force* us to know what date an idea was published as soon as we have read it. This fact alone is not without consequences in that it gradually constructs a linear, historical presentation of "the field", but it also propels scholars into a race to be the "first one" to say something. In any case, the number also suggests precision (which is compounded often enough with page references as well), and the *lesson* that such precision is of some urgency, as it was allowed to break the flow and continuity of the sentences it was inserted into. But what am I saying? This type of referencing does something much more transformative that simply "breaking the flow" –rather, it changes the flow entirely as trained scholars begin to think their sentences out ahead of time in ways that are APA-positive (while novice ones restructure them retrospectively).

And while breaking with these (extremely recent) traditions is itself "poststructuralist", I will not pursue such an activity on that account alone (since there are a great number of "structures" that have evolved culturally and linguistically for important reasons). What I should engage in, however, is an analysis of how such

structures are and are not "ecological", how they aesthetically help or hinder my environmental education curriculum, and how these two factors are related to one another by virtue of the very *form* the content of what I do takes. In the meantime, I will abandon this form of referencing. From this page onwards, the authors I cite will be referenced in detail in an Appendix found at the end of the work.

10.

Perhaps, along with a qualitative researcher's disclosure of his or her race, gender, and sexual identity, the scholar could also briefly mention authors or artists that touched on him or her in the past, but which are not cited in the present work. For example, I was, at one time or another in my life, drawn to Dostoyevsky, Lewis Carroll, Lynn Margulis, Bill Mollison, Sartre, Michael Ondaatje, Darwin, Aldous Huxley, Spinoza, Kant, Dr. Seuss, Mae Wan Ho, Leonard Cohen, Douglas Hofstader... Even though it is from his so-called "Early Period", I find Beethoven's Pathêtique sonata in its' entirety quite brilliant.

I cannot tell you, except by constructing a story, how any of these people contributed to the words I am writing now, though I feel confident that their affect is foundational to my thought today. However, from the point their works directly affected me for the first time to the present moment, their influence "went subconscious" somewhere along the way and thus the manner in which they operate in my mental ecosystem is not accessible in the same way that more recent writers have been. In this latter case, the influence is recallable but more superficial –or rather, recallable because it is more superficial- so, for example, I can cite Lather or Bowers and perhaps even find some ways of connecting their ideas together through the thought of Abram, but I will still not know in my building what influenced me to be interested in these authors, what

made me choose precisely *this* aspect of Lather's work to comment on or to connect to Bowers, or what caused me to interpret them in *this* and not *that* way. But these factors are the foundation of the edifice, which would be fictional if erected as though they didn't exist –but which equally so cannot be accounted for without fiction.

11.

Between the ages of 24 and 30, I gave up writing. I do not know my real "reasons" for doing this, but two thoughts kept coming to mind throughout this period: 1) what right did I have to sacrifice this paper, this ink, this electricity, etc., for *my thoughts*? 2) how could the effect of writing possibly be beneficial for my mind –when it forces me to visit thoughts and thought-patterns at a tempo, ratio, and manner I would not do without it?[34]

I also essentially gave up drawing and painting as well during this time, largely for what I considered to be "ecological reasons". I would only permit expression through media such as body language, conversations and musical instruments, all of which did not require a constant input of resources to fuel their development.

12.

I "decided" to start writing again when I decided to pursue a Masters thesis. I let myself believe that the "ends would justify the means". And, after a year of deliberation I finally allowed myself to begin dabbling in watercolours (which, I concluded was the least destructive of the various painting media –some of the pigments are at least from common natural sources). I compromised my eco-logical position that art *of the future*

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[34] July note: I felt then that there is a process of natural selection that is continually operating, weeding out ideas and thoughts, through a continual feedback relationship between my inner and outer worlds. Writing, I concluded, selectively chooses items of the former and magnifies them at the expense of the latter.

should only be made from locally-available, easily-renewable materials that I have produced myself (such as blue ink from indigo, etc. (notwithstanding the socio-economic problems caused by the commercialization of indigo in the 19th Century)). What right do I have to be eco-illogical here? The truth is: none; and the fact that I took a step away from sustainability to write this thesis often feels indefensible. I am still at a loss about how to handle this issue –I have been on the verge of concluding that I shouldn't be writing any longer and abandoning it altogether. But I am also driven by the hypocritical, yet incessant *feeling* that this work is necessary; that *if* I succeed, what I am trying to do really would be pedagogically transformative. Doubtless, however, legions of other environmental education researchers share these convictions as regards their own work too, and so I re-ask (in light of our collective failure to transform) what gives me –or you –the right?

13.

Perhaps we can look at this problem in a different light: we know that both species and ecosystems adapt and that they have adapted to "deal" with our technologies in the past. What prevents adaptation is the rate of increase of, and rate of change in the type of technologies we use. If computers were distributed within the human population in such a way that it was unnecessary for every household to own one, and if they were assembled and designed in such a way that their hardware and software were not requiring continuous upgrading, then it is possible that the overall effect computers have on human behaviour reaches a steady state –thereby giving the rest of nature (maybe) the chance to catch up. The Marxist credo, that technology is neither good or bad, but becomes one or the other depending on *how* it is used might contain some truth if we re-conceive this "how" as referring to factors such as duration and intensity of use (rather

than intention) –but dialectical materialism did not have the ecological underpinnings to consider these possibilities.

14.

Writing this thesis causes me pangs of guilt from time to time. While I wrote that ecology is an ontological issue first and foremost, I have physical responses telling me that it is still ethical too.

Perhaps, to cleanse myself of the sin of this exploration, I could spend another 6 years after I finish this thesis not writing again. I don't see why the possibility of "rainchecks" shouldn't be permitted. Were I to grow my own bamboo or pulpwood for paper, there would surely be times when I didn't have writing material, and other times when I did. If I plant a couple trees now, I'll see to it that I won't start a dissertation until they are harvestable. But what would I really have to say? Even if I grew my own paper next time, this fact alone would not permit me to conduct any old research. Would there be any ecological point in continuing or refining this prelude in the "thesis format"?

15.

But even dissertations are rarely cited. Why spend all this time and energy on a curriculum that will reach so few people? It is possible that there won't be more than 15 people who will ever read this, and most of these won't even be "environmental education researchers" (at least by profession), who are the primary target[35] for my education. Further, most of those 15 people are my friends and family, who know me well, and will probably just see this thesis as a natural and obvious extension of my personality –without recognizing what exactly it is that I am trying to teach. A much

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[35] July note: Military term, consider revising.

more "effective" route might be to prepare a paper for *Environmental Education Research* or *The Canadian Journal of Environmental Education*[36].

But why do I think it is my task to teach this lesson? There are probably a hundred environmental scholars right now, all with much more academic experience and clout than I have, in the process of reaching similar conclusions (I don't mean this in a cultural-deterministic sense that arguments, such as those citing the convergent discoveries of calculus by Newton and Leibniz, assert. But the notion of "walking the talk" has been floating about in our culture for centuries and is a frequent debate amongst environmentalists. It would be surprising to me if no one tried to apply this to research, to writing, to *living* as a writer and researcher-). What do *I* hope to gain by pushing this venture forward? Yes! There is egoism there, there is a "will to power" –that is not buried deeply underground even when I acknowledge it. But there is much more than that too.

These twins –ecoism and egoism- are they like Abel and Cain or are their identities combinable? But didn't Cain finally make Abel a part of himself only once he had killed him? So which of the twins will eventually be Cain?

And listen! Aren't they even the same word? To make the "ego", I need merely to "voice" (as the linguists call it) the letter "c", which in effect means that I make the word more internal (or that I make the "innerness" of the word louder) –But enough! How deceitful of me to use poetry as an argument –but isn't logic also just another form of poetry? One that appeals to the aesthetics of "logical types"?.

16.

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[36] Antoinette (personal communication, 16 May, 2008) asked me why don't I do that? I have thought about this question from time to time since I wrote this. But should I give you a/the reason(s) why I haven't? I don't yet believe the reasons I have been giving myself!

So long as I approach "thesis writing" as a pedagogical activity, then I would say

that any "honest" move to convince you should be fair game[37]. Eisner is known to have

famously proclaimed that a novel could be an education dissertation –but now I am using

Stanford, the AERA, and his stature, as arguments -which is neither artistic nor honest.

17.

So, I am writing this directly for about 15 people, perhaps as *training*, perhaps as

preparation, but it seems clear enough that those who are learning the most from my

curriculum are those around me day in and day out. I took almost a month off writing to

help build the boy's dormitory, but for the past week I have devoted myself, almost

completely to the thesis. We have some new workers and, from their point of view, I

surely appear as an absent "boss", sitting in my office (hut) doing office stuff, while they

are labouring in the dirt and rain. Occasionally, I *descend* to make a tour of the grounds,

inspect the progress at the dormitory and the compost toilets, and comment on the work

being done. Were I not writing this thesis, I would be more engaged *with* them and the

project would be much more collaborative.

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[37] After sending this passage to Antoinette (personal communication, 16 May, 2008) asked me: "education as rhetoric rather than educare"? When I initially prepared this draft, I revised this paragraph so that it did not include this wording. However, I eventually decided to keep it, partially as an invitation to you all to consider how often outcome-based education still plays a part in your thoughts. Can it, -or should it- be banished completely? I prefer to recognize it as a thought process that will continue to play a part in all of our thinking, but one that is ultimately just as unsustainable as its opposite (which Summerhill showed). Instead of settling on a foundational pedagogical framework, I am accepting that I oscillate between an indefinite and changing number of ways of conceiving my relationship with others. However, any attempt to try and grasp this movement is itself bound to be, with its specific tempo and flavour, just another conception in time.

Responding to this Rick added this point (R. Kool, personal correspondence, August 26, 2008): "A teacher is all about convincing, even at the best convincing someone about the importance of the investigations…inasmuch as a teachers job is, in my opinion, to help to reveal things that are hidden, part of the job too is to convince a student that there are things that are hidden from their view (and recognizing that there are things hidden from the teachers' view too)".

Thus, "thesis writing" can be non-ecological in the way that it, as an activity, takes away from time that could be spent involved in regenerative, social and ecological activities. How many hectares of forest might I have saved from Vietnamese rubber plantations that are spreading across Southern Laos if I had spent more time fundraising to buy land and develop a project to manage it within our community? Or, what campaign could I have continued against the development of genetically modified organisms (which, I must say was almost *the* issue that consumed the first five years of my "twenties") if I had not taken time for this introspection?

But, from another angle, this concern is immaterial, perhaps ringing of the metaphysics of "scientism", with its assumption that a "most effective" activity exists – when in fact it might be that we are simply immersed *in situations*, not entirely of our choosing, but which we can improve through sensitivity and dedication. To answer an earlier question (from this angle): I will continue the thesis because I began it, it is only from being immersed in living in this situation that I can fully realize the difficulties in "thesis writing".

The first thing I could do is talk to the workers (why am I using that term? In Lao language, I only ever call them my brothers and sisters?), explain why I need to be sitting up here in my hut, and why I feel guilty about it.

18.

I took a couple days off writing to read the first half of *The Moral Life of Schools*, by Jackson, Boostrom, and Hansen. There are many points of intersection between their project and mine –starting with their writing methodology, with which they sought "to enact in [their] own writing the same kinds of reflective processes that the book as a whole seeks to encourage in its readers". In other words, the authors recognize the

pedagogical nature of their text, and attempt to enact its curriculum.

The book is predominantly concerned with the moral nature that is continually expressed, for the most part unintentionally by teachers and their activities, and which is summed up evocatively in the Emerson quote that they are fond of repeating: "Character teaches above our wills. Men imagine that they communicate their virtue or vice only by overt actions, and do not see that virtue or vice emit a breath every moment."

However, despite their awareness and intention to make their text pedagogical by *doing* the kind of thinking they want to teach others, their modeling misses its required depth on one crucial fact: it shows us how to identify "expressed morality" in others, not in our own self. To show this, the authors would have had to examine the "virtues and vices" continually emitted in their own text. It is this reflexivity that I hope will separate my project from theirs.

They provide a "solution" to my previous dilemma of *what* to analyze (see Book II, 8), which has been plaguing my conscience since the start. If we indeed continuously project a morality, within which I am including an environmental attitude, then how can we know what to cast our eyes upon? To answer this question, they introduce the language of Umberto Eco, stating that ubiquitous phenomena like "morality" are *open* because they are multi-layered and there is always more that can be said about any given situation. By observing the teacher, we can gain insights into what they express and its moral significance, but by talking about it further, or by having other observers observe the same or different events, we can always gain richer perspectives.

I can look at the "environmental attitudes" projected by another person and will therefore glean different insights from you. When our insights are contradictory, it does not mean that one of us is "wrong"; rather, it may simply be that environmental attitudes are complex and contradictory affairs. In any case, our two perspectives do not negate

one another in any simple sense – rather, they complement each other in a way that adds information, and which is described in Bateson's chapter, "Multiple Versions of the World". What all this means is that for these authors it doesn't really matter what we choose to focus upon: what anyone observes is a valid and meaningful layer.

However, when I choose to observe myself, and the environmental attitude I emit with every breath, two things occur in parallel. On the one hand, I introduce a perspective (that you, my reader, will hopefully complement as you read this), an interpretation that provides insight into aspects of myself that I may not have realized prior to putting on this lens. As a "first order" affair, my activity makes meaning, trains my self to delve deeper, and (hopefully) teaches you too –and is thus a modified form of what these authors are engaged with in *The Moral Life of Schools*. But… the fact that I am analyzing my own actions and writing about their ecological significance means that *what I choose to write about* also projects or emits an environmental attitude and so I will have to examine this on a "second order" as well (and I guess I have been). The authors admit that "weighing the moral significance of every act would consume so much energy that we could not get on with other things we might want to do" –however, what we choose to pay attention to, and what we choose to ignore is perhaps doubly significant. Their solution does not necessarily apply to self-analysis.

BOOK IV.

End of April, 2008.

1.

After making the "decision" to make do with whatever resources I have with me – to accept this constraint as my ethical limitation on research, as the rhyming pattern that will draw out creativity, I opened up the most recent addition of *The SAGE Handbook of*

Qualitative Research. I had purchased this book online in Canada, back when I thought that being thorough with respect to the literature was more important that living bio-regionally. In fact, during this brief time back in my hometown, I spent several weeks ordering a great number of books from Abebooks (which I considered a more enlightened choice) and, when necessary, Chapters or Amazon. Each time I return back to Laos, I essentially doubled my weight in books, and have now successfully architectured my locale so that it is a vast and luscious garden of foreign species. Of course, in spite of doing this (and in spite of also downloading hundreds of journal articles on various subjects that I perceived as either directly or tangentially related to my research), I still have access to just the smallest fraction of the field "out there". And, as inevitably happens, whatever I choose to read points my curiosity almost immediately to sources outside of itself, perpetually feeding my insecurity, my feeling that I don't yet know what I need to. Or: that my bioregion doesn't have what I need.

Towards the end of the book, I found that interesting article by Richardson and St. Pierre, entitled "Writing: A Method of Inquiry." I was already familiar with Richardson's CAP methodology and had cited her in my thesis proposal. But this article seemed to even more closely align itself with the way that my thesis had been proceeding. Later on, I went to an Internet shop to see if Antoinette had emailed me back with comments about some writing that I had scanned and sent to her. While I was there, I forgot about my vow to not search for any more literature online, and decided to find some more articles by St. Pierre, who I had not heard of until that point. It was only after downloading an article from my university's online library that I realized what I had done.

But how hard-lined should I be about this matter? St. Pierre's article is now (like countless other ones I've downloaded but still not had a chance to carefully review) in a bioregional "purgatory" of sorts –it is now saved in my computer, its abstract is now "in"

my mind, but I have not yet *let it into* my mental or physical ecosystem. Should I?

There was something consumerist in my thoughtless craving to acquire that article, that zest of novelty, when I still hadn't read that article in the SAGE handbook carefully. There was also something lazy about it: I did not fulfill my desire for novelty by producing it myself. I feel like this method of inquiry is like going to the zoo –in a brief period of time, I can experience, in a totally decontextualized state, a small aspect of a hundred different animals, when, to fully understanding any one of them would take me much longer than the span of a lifetime –and even then, I would still never know what it is to *be* that animal.

2.

From a pedagogical perspective, what does this action communicate: I wrote an email to Antoinette over a month ago, explaining that I would prefer to discuss her responses to my writings by telephone rather than email. However, since that point, I have not called her and have only continued to send emails. Further, I have not communicated my reasons for not following through with my own desires (did I have "reasons"? -Okay, I did not communicate my acknowledgement that I was still using emails).

3.

A[38] ~~major objection that will be raised against this thesis by logical minds is this:~~ ~~"how can you claim to be trying to "do research ecologically" or to "live education"~~ ~~when you haven't even defined what these terms mean?"~~

~~Perhaps the task I have set before myself is like that of trying to learn a musical~~ ~~instrument that hasn't been invented yet –perhaps it is even I who have to invent it. To~~

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[38] This section was crossed off in my original notebook version.

do so, I have to make sure that it is *playable* while I am constructing it and that it can generate tones that I, as its inventor, would like to hear. But I can only really alter these characteristics according to my needs after I have already built something—and that I have begun learning to play it before it has been built.

But how apt is this metaphor? Playing and building sequentially influence one another (and can then be said to be in a dialectical relationship). But the relationship between my research goal and my means of getting there is not of this type. When I say that I am, at all times, projecting an environmental attitude, though not necessarily a positive one, it is more like I am always playing the instrument regardless of whether I can hear the melodies that I am generating. My task is more like this: I am trying to hear these melodies so that I can make them sound better. But what is this "consonance"? Answering this question also has its own melody. Anyway, dissonance is not merely an subjective aesthetic concept, it depends on a basic physical fact, related to how the periods of the different wave frequencies overlap. Living environmental education is the same.

4.

Self A: But not everything needs to be overtly ecological!

Self B: How so?

Self A: There are meaningful experiences within the human situation where it is *inappropriate* (and perhaps even *un*ecological) to suggest, defend, articulate, describe, question, etc., the eco-logic of a particular experience. Inasmuch as there appears the current pressure to try to re-colour everything I do in an *environmental education* dress, I may be overcompensating in the way that Lather suggests feminists sometimes need to do. The explicit self-consciousness, or reflexivity, that drives autobiographical qualitative

research also pulls me towards such overemphasis.

At times it seems almost *heretical* for me to be continually discussing the relations of my self in my world. The nature of "being ecological" often seems to me to be above all, something that should be talked about *rarely*, because the way of life which it calls for is sacred, and, like all things holy, also fragile.

I wrote in my thesis proposal that my goal was to relieve the incongruence between my intended and unintended curricula. I wanted to "write ecologically", and wrote about this, making that desire explicit. Until now, I have spent time struggling to pull apart various things I have been doing to examine how they relate to my desire to "be ecological". I have been assuming until now that what I *intend* to teach is the same as what I make explicit (though I did recognize that distinction while writing the proposal). Perhaps my goal should be refined (note: overuse of the word "goal"; itself ecologically questionable) —to reduce the dissonance between what I want to show and how I do it may not even require me to talk about what I am doing at all! But this literary technique (of showing not telling) is probably more at odds with current academia than any of the other issues I have raised so far.

In the end, even if future research addresses some other intended end, as long as it seeks to be "environmentally neutral" (assuming the role of advocacy to be temporary or at the very least not a universal requirement) then the research process can be conducted in an ecologically appropriate manner without this aspect ever being voiced.

Self A: No! There will always be the rare occasion which requires articulation – the tool by which we identify our slipping-away from eco-logic, hone ourselves back in, and the tool with which we teach others also. Yes, the sacred cannot be heard through all our chatter, but if we keep completely silent it will not be voiced at all.

Self B: But isn't it possible to imagine, at least in principle, a world where

ecological thinking has become so internalized, that we live "in balance" like the animals and plants in natural communities? Is it not just another anthropocentric line of thought that presents this as an "impossibility"?

Self A: The question is more like this: how can we expect to live "in balance" if none of the other species do? Destruction, catastrophe and extinction are phenomena that are not only *naturally occurring* but probably even indispensable for the "ecological balance" of which you speak, which is a statistically inferred concept at best. To this, I would say that living "in balance" or "living ecologically" are as anthropomorphic as any allegedly non-ecological ways of living.

Self B: Be that as it may, as a human construction such a motto could just as easily be indispensable for our survival as well as that of our world's ecosystems. It does seem odd now, doesn't it, that we appear to have shifted positions! I now find myself bulwarking the notion that we *should* use language when just a moment ago it was you who was defending its use! By why insist on consistency here? Our issue has changed and with it, our positions. Well, then. Perhaps our goal is not to live according to nature, but rather to construct a uniquely human way of letting nature continue. I am reminded of a quote:

> "According to nature" you want to *live*? O you noble Stoics, what deceptive words these are! Imagine a being like nature, wasteful beyond measure, indifferent beyond measure, without purposes and consideration, without mercy and justice, fertile and desolate and uncertain at the same time; imagine indifference itself as a power –how *could* you live according to this indifference? Living –is that precisely wanting to be other than that nature? Is not living – estimating, preferring, being unjust, being limited, wanting to be different? [note: Bateson: information is the "difference that makes a difference"] And supposing

your imperative "live according to nature" meant at bottom as much as "living

according to life" –how could you *not* do that? Why make a principle of what you

yourselves are and must be?

Self A: So you see. This quote reminds me of another, from Leopold's *Sand

Country Almanac*:

I have read many definitions of what is a conservationist, and written not a few

myself, but I suspect that the best one is written not with a pen, but with an axe. It

is a matter of what a man thinks about while chopping, or while deciding what to

chop. A conservationist is one who is humbly aware that with each stroke he is

writing his signature on the face of the land. Signatures of course differ, whether

written with axe or pen, and this is as it should be.

I find it disconcerting to analyze, ex post facto, the reasons behind my own axe-

in-hand decisions. I find, first of all that not all trees are created free and equal.

Where a white pine and a red birch are crowding each other, I have an *a priori*

bias; I always cut the birch in favour of the pine. Why?

Leopold's "reasons" for such a bias are a combination of ecologically driven

choices and aesthetically guided observations:

Under this pine will ultimately grow a trailing arbutus, an Indian pipe, a pyrola, or

a twin flower, whereas under the birch a bottle gentian is about the best to be

hoped for. In this pine a pileated woodpecker will ultimately chisel out a nest; in

the birch a hairy will have to suffice. In this pine the wind will sing for me in

April, at which time the birch is only rattling naked twigs.

Answering why he prefers one tree to the other by indicating what shrubs and

birds each of them hosts merely defers the question: why does he prefer pyrola to bottle

gentian?

(more on this later).

Self B: Bioegalitarianism, ecological balance, anthropocentrism, ecocentrism, - and bioregionalism too- what all these words have in common is that none of them can be lived fully. They are all dead abstractions laced onto reality when they are not accepted as merely particular schema whose truth does not exist outside of the particular instance within which we enter into their "ideational grasp". We will all sometimes be bioegalitarians (why not be? There is something so beautiful and blessed in feeling its truth!) and other times not be, and the transition between these states will be almost seamless, quietly corresponding to the flow of thoughts and the world around us, to which they stand in continuous relation. As much as it is the case that I am trying to move towards living an environmental curriculum, I have to realize it as just that –a "moving towards" that stakes no claim upon what the particular footstones along the path will be. Perhaps it is the flow between these different schemata that constitutes (the conceptual portion) of our melody, and "consonance" relates to how well the melody moves with the world around it. But this view itself is now asserting itself as having epistemological supremacy, and, as you will see, this is a fraudulent propping because soon enough a new context will cause me to *reflect* something other than it.

5.

I have a copy of Deleuze and Guattari's *Thousand Plateaus* at my parents' house in Canada. Were I to write this thesis in an "academically rigorous way"[39], I would have them mail it to me because in it is both an explication and a demonstration of "rhizomatic" writing, a strategy sought to avoid such "epistemological supremacy". I am not fully comfortable with how I see this metaphor being used, in part because rhizomes

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[39] This "Academia" that keeps coming up is more like a mode of my self than an actual external body.

themselves depend on "arborescent" structures to exist in the biological world, a fact that has been ignored in what I've read about the rhizomatic nature of ideas. Nevertheless. I am opting for an overall architecture to my thesis that may, in some ways, be non-hierarchical, which suggests I explore Deleuze and Guattari's work. However, I already know that rhizomatic thinking is definitionally interminable, and that once I have begun reading their text, twenty others will come into view as appearing completely indispensable. Thus, while the "tree of knowledge" may not be a tree at all, I choose to make my venture into it at least somewhat hierarchical according to the following tentative criteria: 1) the most significant sources of knowledge are myself, and the people and things[40] in my immediate surroundings, 2) next are the books I physically have with me, 3) next the books and articles I have in electronic form saved on my computer, 4) next, the knowledge I could but haven't yet accessed online or at reachable libraries, 5) next, the books I would have to have mailed to me to read.

I believe this progression loosely equates to the "embodied energy" (or "embodied waste"!) that my thesis might be said to contain. Rhizomatic thinking is operative in my mind within this aborescent framework, as an organelle.

6.

A keyword search on my computer reveals the word "rhizomatic" in 31 documents in contexts not related to agriculture or forestry (67 in total). It is a craving for "the most", whether it is the most authentic source, profound understanding, or rigorous thesis, that has pitted my valuations against these local resources and towards those which I do not have. And it is upon this feature, which my deep-seated impression of academic requirements buttresses with my consumerist striving for novelty based on

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[40] Into which category did I include non-human life?

created insufficiency, that I hold with the greatest suspicion. And yet, I am still not immune to its' pull. I have a story about what happened a couple days ago.

I remembered an Aristotle quote which has great relevance to my task at hand – the one about how we become noble by doing noble acts, temperate through doing temperate acts, and brave through doing brave acts. By an extension of this line of thought, I felt I should resist my desire to fetch *Nichomachean Ethics* from the internet and become abstemious by doing abstemious acts. But, after mulling about it for several days, in a fit of weakness I went to an Internet shop and downloaded it. The whole process took less than a minute, so many would consider me daft to presume it in any way beneficial to deny myself such an important intellectual resource that "cost" so little to acquire[41]. And, I might be in complete accordance with this if Aristotle's book were the only thing I felt I was missing. What I worry about is that my decision to download this book will now set a precedence, in a sense re-allowing me to develop my energy-intensive, globalized rhizome. I still have not decided whether or not I am going to read his book. I asked for advice from Sophavanh, my wife, explaining the problem in some detail, and she said that I should. We talked about setting limits to the number of articles I

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[41] A few months ago, I went on the internet to find information about using lemongrass to control erosion. There is a swidden field just above my hut that suffers from flash-flooding, which brings a soupy, brown stream of soil to the river every time it rains. The concept of creating contour hedgerows does not exist here (except in my mind), although lemongrass is commonly grown in gardens. I decided that spending twenty minutes searching for how effective this particular plant is (I was guessing it might work based on the type of root system it has) and the correct spacing of the initial planting, was "worth it". Actually, I didn't decide this at all, I just did it from habit and it was only when I was in the process of searching that I realized what I was doing –and quickly justified it to myself[41]: "although the computer probably has aluminum parts from an open-pit bauxite mine, the computer is there at that internet café anyways –and besides, there is nothing more important ecologically that the protection of the soil, each inch of which takes nature hundreds of years to make." The truth is, my use of the computer in this situation could have been more beneficial than it was destructive, if I frame it in that way. But the problem is this: even if everyone has their own reasons for using computers, each on their own are earnestly for some social good, the inescapable fact remains that *collectively*, all of these individual actors destroy. This is the face of the prisoner's dilemma.

download instead of rejecting future downloading completely, and I decided this

probably had merits over not doing so. Future articles would have to be considered on a

case-by-case basis.

7.

It is interesting how easily a metaphor can spread across the intellectual

landscape, not unlike *Imperata cylindrica*, whose impenetrable thicket of rhizomes has

prevented the regrowth of millions of hectares of tropical forest worldwide. And here too,

the decentered weediness of rhizomatic thinking does not permit thought to take root and

develop in any one place, overturning one type of hierarchy with another, less visible,

subterranean one. The "rhizome" was taken up, after Deleuze, by Lather, who, with a

long list of followers, shifted its' meaning into something scarcely appearing a

"rhizomatic system". Lather eventually grew "rhizomatic validity" out of this, which, in

an almost ironically *clonal* manner, I continually see described as "when a text presents

multiple voices defining the situation differently" (Reason 2001, see also Denzin, 1994,

and Gough et al., 2003[42])[43]. While their manner may be rhizomatic, their definition of

rhizomatic validity seems far from it. It is the nature of rhizomatic propagation that it be

clonal, monocultural, presenting a single genetic "voice", so to speak. What it could be is

that another inappropriate metaphor has been selected and has spread "rhizomatically"

reminding us of what Gregory Bateson pointed out: "There is an ecology of bad ideas,

just as there is an ecology of weeds".

8.

If we were to select an organism or part of an organism as a metaphor for the

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[42] In this case, I believe that it is important to see the list of influential authors using this definition, so I have kept APA style referencing.
[43]Incidentally, I can't find (at least in the four articles I have by Lather in my computer) any description of rhizomatic validity as such.

growth of knowledge, it seems to me much more sensible to choose *Rhizobium*. *Rhizobium* is a genus of nitrogen-fixing bacteria that form synergistic relationships with certain leguminous species by infecting their roots. A metaphor for the growth of knowledge of such a sort would emphasize the importance of collectivity between different modes of knowledge (but also, between different species and kingdoms). Moreover, it would draw attention to the ecologically regenerative attributes of *living* knowledge (because nitrogen-fixation is necessary for soil regeneration, which is why all terrestrial ecosystems have some leguminous tree or shrub growing in them, and why degraded soils tend to have even more of them. The heavily disturbed soils of our school site are infested with *Mimosa pudica*, which, by pairing up with *Rhizobium*, can produce the missing nitrogen necessary for their own survival, while in the long-term, reintroducing nitrogen stores into the system as a bi-product (which thereby optimizes the conditions for other plants to grow)).

However, I am skeptical of such a metaphor as well. I would be more willing to stick (for now) with the original "tree of knowledge" image so long as we recognize that the boundaries around which we define "tree", however compelling they may appear through our visual perception, are completely misleading. The "tree" is not an independent unit, because it can only exist when paired with certain animals that help disperse its seeds; mycorrhizae that help it source out soil nutrients; soil flora and fauna that make the soil; other trees, some of which (such as leguminous ones) provide it with nutrients mined from the air, etc. If hierarchies do indeed exist in specific locales, they are not independent ones. The "tree of knowledge" appears artificially separated from its context.

The fact that the growth of knowledge is fueled by increasing food, energy, and material requirements, which, unlike the resources mined by trees, are not recycled back

into the system, means that the growth of knowledge generally follows the same "growth without bounds" progression that human development does at large[44]. This is not surprising, considering these inputs are not prevalent in the metaphors we choose to describe our knowledge, which, as we well know now, not only describes but inscribes patterns of behaviour.

9.

When I spent this morning pulling out Nya Haew Mu (*Cyperus rotundus*) grass out of my garden, I began thinking again about rhizomes. This "weed", which I admit is a disrespectful word considering it does help control erosion on some steep slopes and even has some medicinal value for kidney stones, spreads prolifically across areas whose soil is not kept well covered. It destroys local biodiversity, not merely through crowding out its neighbours (which it does do admirably well), but also through producing allelochemicals that chemically hinder their growth. It spreads by seed, but its prime means is vegetatively (rhizomatically) in farms, where the stalks are usually kept from seeding through weed cutting.

The first thought that came to my mind was that some knowledge does indeed spread rhizomatically. However, so do many other things, such fundamentalism and

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[44] Rick Kool (personal correspondence, August 26, 2008) asked: "isn't knowledge being recycled back into the system all the time, for good or for harm?" I agree, but the food, energy, and material requirements to produce that knowledge are not.
In addition, I had originally written here that the growth of modern societies was cancerous (and along with it, the growth of knowledge), to which Rick commented: "I hate it when we use negative biological or medical metaphors for aspects of people or groups of people that we don't like. The Nazi's did it, the Hutus did it against the Tutsi in Rwanda…" My knee-jerk reaction was to promptly erase this metaphor. But last night, while trying to fall asleep, I got thinking: is not the limitless replication of cancer cells, with its increasing demand on resources, within a finite body *really* like our behaviour after all? The Nazis and the Hutus used metaphor to separate groups within the population into "Good" and "Bad". As long as I consider myself and everyone else a part of the problem, perhaps it avoids the rhetorical evil Rick is alluding to. However, comparing us to a disease which is generally thought of as terminal may have the debilitating effect of immobilizing our sense of agency, serving as a mechanism to ensure a self-fulfilling prophesy.

multinational brands. I realized that the arguments put out in favour of rhizomatic ways of conceiving "knowledge" and against its competitors, such as arborescent conceptions, were themselves mental *alleloconceptuals*, if I may be allowed the play on words.

We might even say that the original "tree of knowledge" metaphor itself spread rhizomatically too, as it reached into new mental territories and delegitimated existing conceptualizations. The "truer" an idea is, the more generalist it is as a mental species, and the more able it is to displace locally-adapted, context-specific knowledge when struggling for the same conceptual niche. The sciences in general, but also monotheistic religions, tend to have this power to assert themselves and weaken others precisely because their acontextuality is their weapon. What sorts of truths will I (or you) place upon this thesis and what local variations will they displace?

10.

This leads me to my considerations earlier (Book II, 12), when I spoke of the "truth" of some idea as ultimately being subject to an evolutionary process of selection, and based on its survivability within the world rather than the sharpness or cogency of its logic. However, in the paragraph above I explained that mere survivability can also be its most destructive feature. Bateson reaffirms: "It is commonly the most generalized and abstract ideas that survive repeated use … to become *premises* upon which other ideas depend, … [and can] become pathogenic when implemented with modern technology" – but this tension between what is sustainable in short, medium, and long term sense is crucial to the definition of sustainability and is ever-present in issues as varied as health, economics, agriculture and even love!

Regardless, it is easy to see that an idea (or cluster of ideas) that spreads in such a way that it reduces the diversity of ideas around it, that operates as though it was separate

and in conflict with those in its context, ultimately weakens itself (while doing considerable damage in the process). Let's say that some explorations are conducted rhizomatically (in however varied those senses may be) and others arborescently, but that exploration, as an overall human endeavour, is more an integrated phenomena. The closer we come to realizing what this integration is, the more ecological our research choices become. Our "individual" research (if we still, by force of habit, still call it that), as a specific node in a knowledge-producing ecosystem, will appear differently and will represent the exploration in general therefore differently as well. This is what I mean by bioregionalism (which, as you can see, is a completely specific meaning that is not at all similar to the one that Noel Gough and Leigh Price take issue with. No regional policy making measures could ever come out of such nodalism).

11.

Bateson: "The very fact that I am monologuing to you –this is a norm of our academic subculture, but the idea that I can teach you, *unilaterally*, is derivative from the same premise that the mind controls the body." Is it possible to write a thesis where I interact as co-teacher and co-learner with you, my readers?

To an extent, this should happen most with my thesis supervisor, Antoinette, though for a couple of reasons (mostly related to my geographical separation and my experiments as a Luddite, but also because of her intrigue with research that develops itself –autopoietically, as she calls it), this hasn't yet been happening very much[45]. I suspect that I could also increase the "multilaterality" of the finished product by inviting people to read the drafts, or segments of them, and discussing it with them. But none of this can much change the pedagogical nature of the published thesis, which will still be of

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[45] August note: it may well be happening, but it is not being voiced.

the form that it is coming from me to you. I understand that you will interpret this as you read it –in a sense, your understanding will re-write the text- but this interpretation will not be fed back to me. Journals, books, theses, or conference-proceedings might, if I am lucky, provide some participation but, from a systems point of view, there seem to be some difficulties preventing this format from being the optimal for interchange.

For instance, the size of the thesis is already too big to permit others to respond in an interactive way (this is also a problem with my interactions with Antoinette –I tend to scan and send her elephantine chunks of writing). This forces the reader to respond to particular segments only, or to the whole only in a very general sense, but it also means that I solidify my "position" too thoroughly, having thought about it on my own for so long. I would suspect that responses which might be playful conjectures in a conversation then become "personal" –the time spent thinking about the issue now needs *defending*.

Consider the lag-time between the thought and its response in a journal or book. Donella Meadows describes this well-known factor: "delays that are too long cause damped, sustained, or exploding oscillations, depending on how much is too long." Like the shower on the fourth floor of her London hotel with the heater in the basement, it seems that delays in responding to publications can also lead to their own overly hot or cold reactions. I gain new experiences, and hence new feelings, knowledge, and thought patterns, in the time between I write this and I read your reactions. Bateson also wrote about this. When describing physicist Clark Maxwell's analysis of a steam engine governor, he explained: "But whether the corrective change will precisely correct the changes that the load induced is a question of some difficulty. After all, the whole process occurs in time. At some time 1, the load was encountered. The change in the speed of the flywheel *followed* time 1. The changes in the governor followed still later. Finally, the corrective message reached the flywheel at some time 2, later than time 1.

But the amount of the correction was determined by the amount of deviation at time 1. By time 2, the deviation will have changed."

"After all, the whole process occurs in time." Consider how neglected this wisdom has been in the way most teachers teach and in the way most research is presented.

Now obviously the quality of reaction you can provide me is neither "corrective" nor quantitative, but nevertheless the basic feedback problem Bateson describes applies to communication between you and me as well. Were we to speak in a "live conversation", there would be a very small lag time. A longer one would follow in email discussions, and a much longer one still in academic published discourse.

Secondly, the academic requirement that a thesis have a "conclusion" creates or establishes a more serious type of relation to one's work, a defense of a paradigm, even if it is a post-paradigmatic one (how forced some of these poststructuralist attempts seem to be! Couldn't we escape conclusion in the same way that a book of poetry does?). This also prevents dialectical growth, or co-teaching/co-learning. An idea that has solidified itself enough to be concludable in this way is scarcely alive anymore. Nietzsche described this *death* so beautifully, and yet so remorsefully in the last paragraph of one of his books. He had, in his loneliness, not discovered the value of co-origination: "Alas, what are you after all, my written and painted thoughts! It was not long ago that you were still so colourful, young and malicious, full of thorns and secret spices –you made me sneeze and laugh- and now?"

12.

As misleading as it is to think of "knowledge" as a unity, or in this case, as an "ecosystem" (for the same reasons that totalizing "society" (as Luhmann and others have

done) is repeatedly attacked), it is also just as false to think that complex systems involving networks of homeostatic systems are incapable of developing any macro-structuring. The problem wasn't necessarily in comparing knowledge to ecosystems, as there certainly seem to be many similarities between these two concepts, rather, it was in supposing that something called an "ecosystem" exists to which knowledge could be compared to. This does not mean, however, that knowledge isn't "ecosystemic", but it does mean that the boundary defining what is and isn't knowledge is just as elusive as the boundary of an ecosystem, and with it the associated question of what organisms can be considered to be a "part" of it. The University's quest for knowledge does not commonly contain, for example, non-denotative, boundary notions such as Lyotard's "savoir-faire, savoir-vivre, savoir-écouter" and other tacit or embodied ways of knowing.

And what about all the things we know, but don't know that we know? Or the knowledge we gain from finally knowing that we do not know? If "knowing" in its most general sense is something equatable to the "somatic changes" Bateson describes as occurring in our lifetimes, bounded by our genes but ultimately just the eternal complement to "our behaviour", then knowing is ecological in part because ecosystems themselves owe their continued coming into existence on "knowledge".

13.

My goal (why do I keep writing that? And each time I write a different thing!) is to present a thesis that displays a "methodological attitude" (as I wrote in the thesis proposal). If this really is so, then editing is a process for which I had better be extraordinarily careful lest I introduce an attitude that I did not really engage in and is thus not enactable. This is where the question of pedagogy is put into sharper focus. I don't doubt that I can more successfully communicate certain procedural aspects of my

thesis writing to you by editing what I've written. But, for every step that I gain, be it through re-writing sections, adding references, moving various passages forwards or back, information is lost –and it is all those aspects of my thesis writing that I am least aware of that will be silenced in favour of distilling a selection of more consciously articulatable points. The act of editing is a move towards recognizing deliberate aspects, that which is not tacit, which may amount to not allowing the whole to be greater than its parts.

But here is a possibility: That which I edit is, for those of you who do not see this [*sic*] draft, neither a part of my intended nor my unintended curriculum. It is rather more like a lesson plan that I quietly draw our at home the night before a class. If my goal is to reduce my "unintended curriculum" then perhaps heavy editing is a good way of going about it –I can take control and manufacture more and more aspects of what I am doing. But… as soon as I do that, a thousand small splinterings of clues reveal themselves in the style of my writing that teach about the importance of form, of control, of manicuring spontaneity. These values will be revealed to the careful reader, and my awareness of this does not reduce my "unintended curriculum" either –it just puts it underground one more level.

But, equally importantly is that no matter what I do, I always have at least one observer. Downloading Aristotle and breaking the rule I had been forming was a lesson that I taught to myself –my "metaself", if you will, that comes into existence each moment I observe myself and separate myself as teacher and learner. I need not have told you, my reader, about this, but I think that there are several reasons why it is good that I did. Writing down the experience opens it up for me, distances it further, strengthens the fleetingly formed metaself, and allows me to penetrate more deeply the qualities of this auto-pedagogical experience. But it also exposes to you some of my dilemmas and

attempts to solve them, which, however much I cannot prove it, I hope will reveal an authenticity that is important in curricula of any kind (but especially in living curricula). My other reason is that I would like to hear other people's ideas on this –I would like to open up spaces where I can be taught. What would *you* do next time, should you feel it is temporarily imperative to download *The Republic*? Such interaction is worthwhile, not so that we can teach each other into Habermasian consensus, nor so that we engage in Lyotardian combat and fight out new ideas. Instead, we can enrich each other's places in diverse ways. I can see how another's perspective makes sense from their bioregional context and how it can be a partial perspective on my own without confining myself to agreement/disagreement binaries.

14.

It is true that editing processes my thought and thus takes away from my relationship with you, but this is also a misleadingly incomplete picture. "Editing" has been the very counterpart to my "moment of inspiration" since the beginning. An idea is floating around in my consciousness or subconsciousness for some time before I write it down –during which time it may thicken itself, perhaps associate itself with new things, perhaps strip itself of some or the other presumption. Nietzsche's quote has its limitations –by assuming that that glorious, momentous thought destroys itself by being written fails to account two possible scenarios: 1) sometimes the initial thought becomes improved through my engaging with it through a relationship with my editing self, 2) other times it is destroyed even *before* it is ever written, 3) sometimes the act of writing spontaneously adds something to a thought (no matter how well ruminated it is beforehand) and can therefore bring the improvisational realm of possibilities back to a thought that has become entrenched. This "adding" may sometimes be a "taking away", but it can also be

just another colorful resting post –if we write it that way.

Book V.

June, 2008.

1.

The process of handwriting these notes in this notebook, scanning them and sending them to Antoinette has run into a difficulty. She explained her recent struggles in an email.

> Reading handwriting is much slower than reading typewritten text. I am willing to spend the extra time, but my eyes do not always cooperate. I must print out the scanned pages because they appear sideways on my computer, and even if they did not, spending time reading text on the computer is something I avoid at all costs. ... [When printed,] your pages are either cut horizontally or vertically, with parts on two different pages. ... Finally, there is the difficulty of my not being able to insert comments and questions into the text. (A. Oberg, personal correspondence, April, 26, 2008)

This email halted my writing process for a month, and I am thankful for it.

If I choose some hardships, as they might be called, in my quest to research ecologically, what right do I have to impose these hardships on others? Am I eco-pedagogically failing if, by writing by hand, I am presenting this as an unappealing option to Antoinette, the key "observer", and "interacter" in the textual component of my curriculum? If I believe handwriting (at least at the "first draft" stage of the thesis writing) has greater ecological validity within my particular context, then what sorts of changes do I need to make for it to seem more desirable?

Through re-reading sections that I have already sent, I see that sometimes I wrote too quickly and have made parts of the text confusing. For example, a number of times I have written "the" instead of "they" and "an" instead of "and". Rewriting my text, either by typing it into a computer, or by carefully handwriting it onto another piece of paper (that is the appropriate size for Antoinette to print out on a single page) might relieve some difficulties. I do still feel like I want to continue producing my "raw data" in this notebook, at least at this point.

Supposing I rewrite it then. But won't my whole research process thereby change? It seems certain: the knowledge that I will have a chance to rewrite this again before it gets to Antoinette will itself change the care which I put into writing this version. It might make me more uninhibited (though I haven't felt constrained in that way) but it might also make me sloppy. It is not necessarily "bad" that my writing quality changes resultingly, but it is worth noting. This is because the tempo and inflection of my writing comes out through the interaction between my mind and the medium it is expressing itself in. I will not be able to go back and massage this writing into a style conformant with the rest of what I have been writing. The integrity between parts and whole cannot easily be maintained through post hoc transpositions.

The promise that methodological constancy be somehow adhered to throughout this process is not itself an incontestable academic virtue. I believe that I cannot and should not decide the proper course of action on my own.

2.

The issue of food is one that I haven't yet written about in depth, but one that I have been thinking about considerably. University students are renowned for eating lots of fast food, junk food, drinking lots of tea and coffee, etc., often somehow convinced

that not taking care of their bodies "saves time" or allows them to "put more energy" into their study –as though the mind and body were separable. I myself am guilty of enacting this –though not by eating too much junk– rather, I tend to eat too little. This often happens because I consider my "morning brain" most productive and don't like to waste potential insights by spending that time lighting a fire, cooking rice, gathering vegetables, cooking them, etc., a procedure that can sometimes take close to two hours. Cooking rice requires that I first sift through it for stones, mice droppings and rice husks, which we try to remove prior to steaming. Lighting a fire often requires finding dry and dead kindling, or at the very least, cutting found wood into thin, easily flammable pieces. Sophavanh, who is not writing a thesis, often does this, but I feel guilty that I am not helping (and that I am re-enforcing a gender stereotype).

So I often spend the morning, in a somewhat uneasy state, writing. By the time my mind is no longer crisp, it is often noon and we find ourselves preparing breakfast when most people here are making lunch. I have thought of cooking food the night before, but since we don't have a refrigerator, it often goes bad, and even if it didn't, it strikes me as a disrespectful practice to the living things who died for my meal, whose vitamins and flavours I let decay. Recently, I have taken to drinking Lactasoy™ soymilk beverage occasionally in the morning (that I buy at a market 11 kilometres away). It is made by a Thai company that (while at least not using genetically-modified seeds) packages their product into 300 ml tetra-packs, of which I have now amassed a considerable quantity. I have tried using them for growing seedlings with some success, but they can only be reused once in this way.

Were I not writing this thesis, it is unlikely that I would be drinking these and supporting a non-local, non-organic, heavily packaged protein source. In fact, it is probable that I would have found time to make my own tofu as we have been growing

soybeans.

This implicit supposition that mind and body are separable is akin to the notion that humans and human well-being is unrelated to our physical surroundings. The similarities are striking enough that they are worth describing. I find my thoughts progressing in similar ways whenever I think about these two issues. Here is one particular progression:

Our language allows us to talk as if there is a separation (e.g. "I" scratched my itchy food, or "I" cut down the tree). This parsing may have arisen because on a scale, or at some earlier time period, it was beneficial to think of ourselves as individuals and as controllers of our bodies. However, it does seem that I do have some individuality and some control over my body so it is more likely that language is describing this phenomenological experience. However, in so doing it overemphasizes the separation (which is in fact no separation at all. Instead there is probably a bi-causality between body and mind, and between person and environment, in that each one influences the other and each one can be the source of change in the other. That being said, the body is a precondition for mind, as environment is for person.)'

Eating "junk food" damages the body, which is to say that it damages the mind and the environmental as well.

3.

Since I began writing this thesis, I have found time to grow my own long beans, black beans, peanuts, leafy greens, papayas, pineapples, and herbs, so the foods that I have been purchasing has dropped to rice, eggs, tofu, tomatoes, salt, sugar, and oil. Tomatoes really have a hard time in the climate here. Villagers give most of the fruit that we eat to us. Of these purchases, it is unlikely that any of them are "organic", which is

not yet a developed or certifiable concept here in Laos. However, nothing I eat comes from anywhere further away than Thailand, so the total distance is well within that of a single Canadian province.

I have become much more aware of what I can grow and when. For example, I now know that Chinese mustard greens will be totally demolished by aphids and grasshoppers if grown in September. I am learning to grow what is appropriate in my ecosystem during each season and am making do without certain things when I can't grow them. The villagers[46] have a lot of knowledge regarding this. I am being careful in my experiments. I look back now and see that I am becoming the modified Deweyian I described early on (Book I, 7).

4.

Coffee. I have been using coffee from time to time to generate insights. Although doing this, on one level, at least pays homage to the interconnectedness of my body and mind, to my mental corporeality, on another level it disrupts it. In spite of recent pushes to market coffee as an excellent source of "antioxidants", its negative health effects have been for a long time already established. What bothers me most are the claims that caffeine overworks the adrenal glands, eventually disabling them somewhat[47]. I do not know how true this is "biologically", but "phenomenologically" (which is probably not the perspective of the woman who told me this) it does make some sense. Who could deny the similarity in feeling between an "adrenaline rush" and a "caffeine high"? I take it as something I have lived and felt, as well as experienced through the changes of others, that any drug handicaps the very thing it temporarily enhances. People who are

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[46] September note: I feel so uncomfortable with these words, "the villagers". It is so common in "rural development" language. But why is the residence of any matter to us? And what do I falsely debase and falsely glorify with such a term?

[47] I used to hear this often from my friends working in the health food industry.

accustomed to daily caffeine consumption are more tired without it than those who don't regularly ingest it. It makes sense that, by repeatedly controlling when the adrenal glands are active or not, caffeine prevents them from interacting in the world in a way that is responsive. It is a triumph of technology over the body, a definitive move towards the "cyborg", and an unacknowledgement of the inherent wisdom of the body (and the body-world co-determination of when I am going to experience these sensations). In the long term, I may be preventing myself natural adrenaline–rich experiences, experiences which I already associate with youth.

(Side note: a new strategy for writing the thesis could be: continue writing in this book, send note summaries of it to Antoinette, compile an eventual "first draft" [*sic*] on 8.5 by 11 (handwritten) and a second draft using (maybe) a typewriter. There is no reason for me to be sending so much uncondensed material to her at this time).

5.

Merleau Ponty:

… it is this highest point of reason, to realize that the soil beneath our feet is shifting, to pompously name "interrogation" what is only in a persistent state of stupor, to call "research" or "quest" what is only trudging in a circle, to call "Being" that which never fully *is*.

6.

The "network" aspect of an ecosystem can be evoked using the website as a thesis format (e.g. MJ Barrett's www.porosity.ca)[48]. I sense that she is actively trying to be the

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[48] Going through this website is a fun adventure. She provides interesting possibilities for a number of issues I've been concerned with. For example, she suggests replacing "I" with *me-Land*.

ecological and pedagogical changes she identifies as crucial, and is therefore motivated by the same desire to transform environmental education research as I am. I cannot follow her lead though. The website as an approach does not allow the experience of time, or change through time (which more linear modes of articulation provide)[49]. However, neither the website nor the essay (which I am composing) captures the fact that ecological evolution is principally mediated by sensorial, not conceptual interactions between species –a fact more clearly evoked in the mode of music, dance, etc. (which are also temporal and sensorial).

The process of "becoming ecological" probably requires that we become acquainted with these and other modes of expression. In all of these cases, a sensitivity develops to the process of continual becoming, to the perpetual newness that springs forth from relationships (which is to say, from things existing causally in time). These media pull us back from our tendency to separate "to be" and "to become"; a severing that has allowed us to perceive slowly changing things as completely still, birthing the possibility of logic, natural laws, and technology[50].

Pivnick is another educator struggling with the same type of question that I am: "what would research look like that is grounded in an ecological worldview?" However, she seems more sure than I am of what an "ecological worldview" is, but at the same time less ready to act on her understanding (she makes me feel that my approach is almost too reckless). She agrees, with me, that there needs to be "an alignment between *what* I [am]

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[49] I am beginning to realize that my preoccupation with time is precisely my preoccupation with causality (side note: would I have a "past" or "future" with causality stitching moments together?). Accepting that changes at one time can lead to changes at another is the core assumption upon which I live, as educator, as environmentalist, as a son, as a husband. Whether or not causality exists in the universe itself is irrelevant. All meaning and all relationships within which I live depend upon this assumption.
[50] And yet, the sensitivity to time that is cultivated through music is clearly not enough for one to develop greater ecological sensitivity The rock musician's debaucheries are a case in point.

researching and *how* I [am] researching." Occasionally, she provided me with some support for my long stretches of non-writing: her approach "requires sitting awhile until we are sure that we are aligned with right action" and "the challenge is that applying *any* method to a topic is putting the researcher in a place of imposition." What I was less satisfied with is her solution: Her approach to "researching ecologically" seems less about aligning one's way of knowing with an ecological worldview than it is in identifying a few traits that nearly *all* dedicated researchers have with ecological thinking. I think it is likely that Oppenheimer went through the stages she described as ecological when he was on the path to discover the atomic bomb. It seems as though she looked back on what she was doing, connected her writer's block with permaculture and her gradual familiarity with her topic with Paul Shepard and, somehow in virtue of making these links, casts her research methodology as ecological. In addition, her major methodological concern is with the ecological relationship between the researcher and his or her topic, and not the relationship between the researcher researching and the ecology that he or she is embedded in. I do not see how these can be separated.

However, reading her work is helpful because it reminds me that many of my own attempts bear weaknesses not unlike hers.

9.

A meaning dense (or, as Agnes Heller writes, "without the imminent danger of hermeneutic satiation") work carries more than the mere advantage of not being a disposable entity, to be used once or twice before being thrown away. Indeed, for this reason alone, it may satisfy our ecological demands, as it is a more "efficient" use electronic and paper resources, to be able to find the new in the old. But what comes from such works is a voice that can keep reaching out in different ways to the keepers of

culture in far and distant ages, that evolves with its context, that does not impose a finite set of meanings (and therefore interactions), but that uses its very liminality to reveal its infinitude. It is, in other words, an organism and not a carcass.

10.

Work that is *not* meaning-dense might provide a short-term lever, fertilize movement in a direction, but, as newspapers and television news reports show daily, the simplicity of the "message" means that it is only be absorbed quickly, but is disposed of quickly as well. As a means of catalyzing change, it requires continual resending in different ways. Advocacy dependent on such messaging is therefore not just pedagogically sterile and politically questionable, but is also necessarily an energy intensive activity.

Educators continuously point out that a successful teacher must meet the student at his or her own specific context for the learning to be most optimal. While people everywhere are becoming increasingly accustomed to, and therefore *customed into* a non-meaning-dense information world, the temptation then is to shed our meaning-layers, to make the meaning preprocessed and packaged, *for* them. Sometimes I consider the possibility of gradually growing layers at a rate that is accessible to my audience –but there is something colonial about this tenet of constructivist pedagogy as well. Are we missionaries going into indigenous communities, learning their language and mores, so that we can refashion an interpretation of The Script that fits into the context of the people (which really means that we've refashioned the people's context to fit our Script into it!)? Suppose, conversely, that we do not simplify, remake, reduce, clarify for the Other in this way –suppose instead that there are necessarily parts, perhaps long parts, where the reader must remain in incomprehension until he or she has fashioned a

meaning. Then, as the reader patiently sits, reading about her topic (without the faintest

notion about what the writer is really talking about) perhaps reading strings of words

containing "meaning", "God", "truth", etc., but without any obvious connection between

them –then the reader is much more likely to drift, and to begin thinking, in however

haphazard a way, about some of these topics. The writing would steer the reader in

however a delicate or forceful way that the reader's needs required. This is a possibility

for meaning dense work. And what better way is there to initiate thought about such

topics? Couldn't incomprehensibility be seen as a tool towards Kant's Enlightenment?

11.

There are many scholars today, and Lather again is a good example, who actively

try to make their work defy single interpretations. They do this as a political struggle

against the hegemony of a totalizing "Truth" or "Methodology". Where I think they are

misguided is that they often assume that this needs to be done intentionally in some way.

(despite many of them dismissing the possibility of intentionality!). I suspect that an

honest treatment of any aspect of living systems should have inconsistency, multiple

levels of interpretation and instability of meaning within itself –because life itself has

these properties. It does not call for a meta-theoretical treatment of methodology –which

itself, as we see in Lather (and even Derrida), also imposes its own "meta-consistency"

and monolithic meta-interpretation.

Meaning dense writing reflects the meaning dense nature of social experience and

of ecological systems, it is "open" in Eco's use of the term (Book 3, 18), and thus

parallels, but does not mimic reality.

12.

"Biomimicry" is not a save-all solution!

I keep tending to copy nature, ecosystems, and organisms as I flesh out more sustainable possibilities for writing this thesis. This may not be wise. Genetic engineering mimics the process of horizontal gene transfer in bacteria. Biological warfare mimics the spread of disease. There seems to be no *valuation system* (that can be biomimicked!) to tell us what to mimic. What we choose to mimic (and how) makes biomimicry as human an enterprise as any. Second, how we conceive nature is itself continually shifting, so we end up mimicking our limited understandings instead. Biomimicry, as popularized by Benyus, seems like a greener face for a new frontier for capitalist markets. Perhaps we biomimicked Spencer's version of evolution?

And intuitively, we know this proposal makes no sense: should a tiger learn how to be a tiger by copying the eating habits of a gazelle? We are humans, and it is best to utilize technologies that help us fit into our unique, sustainable niche.

13.

The dialogic form, for which Bateson is known to partake in, utilizing a father and daughter partnership to draw out his ideas, has several important "ecological" components. For one, the idea is generated through a relationship between people (a meta-system created between systems). But it also alludes to the importance of close, long-term relationships, for establishing "mind". These are appealing reasons indeed, but there is something unsettling in an author contriving this split instead of actually attempting to transcribe the inter-relational generation of his mind. His daughter, Mary Catherine Bateson, who was almost certainly the muse behind his formatting decision, did not recognize herself in the writings.

What if I transcribed passages of conversations with others and showed how I

arrived (using "I" as a shorthand, yes?) at this or that thought? I could trace out my struggles about avoiding excessive computer use through presenting my email dialogue about it with Antoinette, for example. I could also trace the feedback relationship between myself and the plants I have been growing, which is obviously a form of "conversation" drawing me into new realms of ideas. And I suppose I have already been doing that, to some extent. But what would such a revealing serve, in terms of my thesis goals? My bringing to life the ecological nature of this self-making-process –a sort of psychological reversal of Catholic confession; saying it changes my relationship with it.

14.

It seems as though I keep coming across different things I perhaps should be doing, but don't ever succeed in. What happened to my idea of contacting writers and engaging with them directly rather than just with their written work? Doing this would commence a huge process much longer than the Master's thesis "maximum length" (60-80 pages, as suggested by Royal Roads). I am already past that maximum now. What have these writings been useful for? Do readers need to see this process? And how satisfying would a thesis be that concludes by presenting all of the things its author *should* have done –things that might not even apply to the very next venture that the author becomes immersed in?

15.

(A format possibility: Semi-independent paragraphs of narrative, descriptive, and/or argumentative content, linked together by their position in a larger narrative/descriptive/argument. Holding the basic order in which I wrote the original notes, while supplementing some parts to enhance the text.)

I have just drunk another cup of coffee. The arguments I provided a few pages back have not yet convinced me enough to institute "behavioural change". It takes a lot of argument to induce lifestyle changes. Humanity is placing great faith on arguments, as uncomfortable decisions concerning the sustainability of our species become "democratic affairs". How can anyone expect a species to give up thoroughly entrenched consumption habits if I cannot even give up caffeine usage? To some extent, caffeine is, like cars and computers, a time-saving device, allowing me to pump out ideas a little quicker. But were there no time limit for the completion of this thesis, I'd be using it just the same. It is part of a quiet, ritualized activity that gives me *space* to develop my realizations (let's substitute the word "truth" with "realization"). But that is not all: when I drink caffeine, colours become a little brighter, possibilities momentarily more exciting, life a bit more interesting –in short, it allows me to step into my youth for an hour. That it sucks a little bit of energy from every other hour of the day to accomplish this is obviously something, I've been willing to accept. But that is not all: am I not continuing to drink it so that I can avoid the withdrawal effects of discontinuing it? I misled you- although I drink coffee rarely, I ingest caffeine daily and have done so for years, usually in the form of tea. If I have not drunk some form of it by early afternoon, I begin to feel cloudy, edgy, and a pressure in my head.

All the while, millions of hectares of forest and arable land have been given over to the production of coffee, tea, and yerba maté. This is a great sin because these substances are not essential for life –and yet we prevent or kill life in order to provide ourselves with them. It is this that I am normalizing as a behaviour right now, at this coffee stand.

But, there are greater and lesser evils and it would be worthwhile to consider what my choices are. The worst possible choice, and one that I have succumbed to (out of

laziness) several times, but have since promised myself to banish, is to drink Dao Heuang™ coffee. They have a giant estate, reputed by locals to be several thousand hectares (though their website says "250 hectares"), which was apparently given to them by the Lao government (who took it away from villagers). This is not unreasonable to believe, as the Lao government has been known to appropriate land for various industrial crops all over the country. However, even if this bit of hearsay is inaccurate, I still feel it is best to avoid this coffee. What they don't grow themselves, they purchase from villagers for about $1.30 per kilogram and, after roasting it, sell it for ten times that much. They set the coffee prices each year and, since they have a virtual monopoly, villagers who do not agree have not other option to sell (Dao Heuang's competitors accept their prices as baseline). Moreover, they have a construction material company, a travel company, a gold shop, the largest market in Pakse, a major townhouse development, an import/export company, –they even own a major discotheque in Savannakhet. To summarize, they are exceedingly rich.

By contrast, the villagers in my area live without food security for at least half the year.

The solution is clearly to buy coffee directly from the villagers, at a "premium price" that I give them for not using chemicals in the production (which none of them have money to buy anyway). I did buy 20 kilograms from one villager once, who promised me he had not used herbicides or any other chemical on it. But I have not been drinking it. Why? Well, mostly because I haven't had the time to clean the beans, roast them, and beat them into coffee grind. The process takes a couple of hours and the coffee always ends up tasting a bit odd on account of the mortar and pestle I use –which we also use to beat chili peppers, garlic, and ginger.

These problems are not insurmountable and it actually may be facilitating my

movement towards a solution by writing this all down right now. I could just buy a new mortar and pestle and keep it specifically for coffee rituals. Solutions seem to be catalyzed much more easily through writing than reading. Contrary to my earlier sentiments, perhaps writing, by slowing down thought can maybe speed up action; perhaps writing, by severing thought from the stream of reality can reconnect it to life. But, is even drinking *this* coffee justified? I have already expressed many problems with coffee of which this solution address none.

Were these villagers not producing coffee, it is likely that their land would fall upon a similar fate as many of the other farmers not growing cash crops –the Lao government takes the land away from them. As mentioned, an enormous amount of land, has been taken away from farmers in our province and given to Vietnamese companies, under long-term concessions to grow rubber trees. This is extremely distressing to most villagers, who are helpless to do anything about the situation. Having coffee gardens has so far afforded them with a limited amount of security against these plantations.

Coffee gardens have substantial benefits over industrial plantations for several social and ecological reasons. There is a considerable amount of biodiversity in coffee gardens, as farmers intercrop with fruit trees and legume trees to maintain a semi-shaded climate, which is more favourable for coffee tree development in hotter and drier regions. The half-hectare coffee garden nearest our school has several dozen tree species, including *Phyllanthus emblica*, whose fruit has 20 times more vitamin C than oranges (up to 1810 mg per 100 gram serving). This means that the farmers, their families, the soil, and various species of birds, insects, reptiles, and bats, can all keep healthy off of the coffee garden's surplus (at the expense of my little adrenals!). Was coffee not the economic vehicle maintaining this agro-ecosystem, it would almost certainly be dismantled.

16.

Because I have been so influenced by Nietzsche, by his "yes-saying" to life, and by his poetic manifestation of that spirit, by his unceasing conviction that we challenge assumptions on either and all sides for this spirit -I must pay him a special explanation as to why and where I must follow a different path. He sought to totalize what is just one aspect of human psychology (i.e. his "will to power") and, while he may have brought us closer to our animal self, he could not see that this "self" had to be tempered not by domination, but by foresight. He came close to articulating the "ecological self", with his continual insistence that ideas depend closely on place, climate and nutrition. His writings show a much more carnal "self" than even Merleau-Ponty, who was always tempted to waiver back into abstraction.

However, he was still a child of the Enlightenment and not the age of ecology. His Truths were individualistic rather than systemic. Suppose it is true, as he suggests, that people with *esprit* almost of necessity live in places with "excellent dry air" –would Nietzsche give up Paris, Provence, Florence, Jerusalem, or Athens, with the fountains of strength and creativity he sees bursting forth from these places, for the development of the 'self'? If we accept the full extension of his own carnal thinking, we realize the imperative of developing our "self" precisely by protecting these areas, which are now set to suffer from the increased pollution and humidity we are expected to cause them.

But perhaps it is Nietzsche as pedagogue that has inspired me above all else. I find his style evokes my own thought. It has depth but does not clothe itself in jargon, it is terse and therefore economical for me, who does not believe that sitting with a book for hours on end in search of an insight is a commendable way to interact within ones world. And of course, his continual struggle to prevent himself the term, "a prophet" –

culminating in his auto-phagic metaphysical concept, the "will to power", which, if true, implies that we should be suspicious of its' inventor's intentions and hold it at arms length. How else to interpret this but as an arresting pedagogical device, when he continually reminds his reader throughout his copious theories and observations, that all of his words are but dangerous tools being wielded against the reader?

17.

So I set to it. Sunday morning, perhaps the only time I have in the week that I can spare to make my own coffee. I started off rather cheerfully since I had come to a resolve: what I had written about coffee gardens a few pages back almost convinced me of the ethics of its consumption. However, the task quickly became laborious: a full hour was spent battling with the moist kindling, trying to light a fire to roast the beans. Prior to lighting the fire, I had spent twenty minutes separating out the bits and pieces of coffee husks interspersed amongst the beans, until Kong, who works with me, showed me an effective way of whisking them out. The roasting took another 20 minutes and the beating about 40 minutes, bringing the total time to produce the drinkable product to almost two and a half hours. Luckily, I had the foresight to prepare enough to last me almost the entire week. Why had I never thought of doing that before? –Because every other time I had roasted coffee, I had done it merely for immediate consumption. Habit truly shuts the eyes. I might have long ago abandoned Dao Heuang™'s coffee if I had broken through my tacit assumption that roasting in advance is somehow not permissible, somehow impure. How many other potentially ecological solutions lie merely a step away –and yet are inconceivable because habit so thoroughly channels thought? Looking back, it seems inexcusable that I should not have come up with this solution as immediately evident from the fact that the roasting processes was so time-consuming

(and the fact that the coffee from the market itself is not exactly fresh-) –and it is humbling to consider how many other things I could be doing were I able to uncover all the tacit blinders I'm somewhere wearing.

18.

I came to the conclusion that the order in which I've written these notes *does* matter –that the progression reveals a natural process that would be destructive not to respect, that the progression quite simply is the pattern and ingenuity, the aesthetic and logic of a force that I am not in control of, but which is the same force that is behind all evolution. However, this does not at all mean that the editing process will not exist, that nothing needs to be changed. There are so many things that I just didn't express the way I wanted to when I first scribbled them out –mostly because my skills as a writer are still so lacking. I am proposing this compromise to masticate upon: I can delete or add sections, for the sake of increasing clarity (I am an "interpreter" in the sense that National Parks use the term), but I cannot rearrange the order of the progression. To do this is to accept that the order is not irrelevant, while nonetheless not allowing it to succumb to a human rearrangement. I cannot improve the order but I can help show the order's importance.

I am also responsible to illuminate the implicit narratives –while keeping my "well-intentioned deception" to the frame and flow rather than the form.

But! Suppose I wanted to put this idea in the introduction (which I have now somewhat already done now...), according to these criteria, couldn't I just rewrite its basic idea, add it in, and subtract it from this later part? That adding and subtracting are permissible conceivably renders a slow and gradual rewriting of the entire work –making my restrictions against re-arranging irrelevant! And this is where the objections against

this method will be staged, for even if I assume the utmost care to interpret this or that part of my writing from the context within which it arose, and to help draw out that specific moment in all its uniqueness and splendor –I am still doing it from "here". And thus, a conclusion, a narrative, an eternal-present, become interlaced into the past – perhaps only to enhance what was already there, but enhancing it nonetheless. Could I put my insertions in italics, or quotations, or footnotes, or...?

I have often mused at how elegant the thesis would look if, at its beginning it followed all the standard formatting and structural guidelines set out in the MEEC handbook, and, as I gradually began engaging them, I would reach conclusions as to their ecopedagogical acceptability and quietly modify them, or drop them here and there from use –without explaining that I had done so. As the thesis reading progressed, the reader would gradually see different aspects of the format fall out or coalesce in new ways – perhaps re-emerge again upon a second, or third, thought. It would slowly deconstruct and reconstruct itself, leaving the reader to divine the plotline and assess the suitability of my "solution" to the research problems I analyze.

In the end, I realized that this format would be too artificial. I still believe it would be artistically brilliant (if I could pull it off), but the problem is that this is not how the experienced actually occurred. Instead of assuming that the MEEC handbook, my actions, or the APA were innocent until proven guilty, I tried to immediately put up the "precautionary principle", as environmentalists call it. Thesis writing, in any way, standard or otherwise, seriously modifies my way of being in the world, and thus the way it reconfigures my relationship with/in my environment is not unlike that of some new technology. I think it is important to show the reality of this method I chose, which, for all the pedagogical and aesthetic losses it incurs, at least shows how I really went about trying to live curriculum.

And finally, how can we deny that some things were quietly dropped, sometimes consciously, sometimes not; some problems raised loudly but left lingering, waiting for resolution, others proudly marching with banners their Solution. It is this -all of this- that has the multiple levels of meaning, only a fraction of which I tried to imbue it with – levels that my next work might serve to analyze and discover the way they fed into each other.

19.

To say that we are not, all of us, sometimes behaviourists, is to deny an existing mode of human understanding (that exists within a flow of interacting other ones, many of which are non-behaviourist).

20.

I *must* hand in my notebook, without a single alteration. The translator cannot but turn prosody into parody. To edit almost certainly means to not recognize the integrity of the continuous, mutually coordinated flow of ideas one writes and the world within which those ideas are lived. By refusing to accept that the full richness of meaning was in the initial production (now I see that knowledge is even lost by putting typing into handwriting!), I create (at best, and however unlikely) a new truth –albeit a guarded one.

This is what those 84 pages of double-spaced 12 point Times New Roman are to me now –a betrayal of myself that has become a challenge, a threat, the ultimate form of test against my own expectations –the fight between two selves- *I finally allowed myself to be typed* (and in typing these words now, the bottom is falling out).

By some of the things I reread or added to, I was definitely impressed. But is being impressed enough? To not type! And what an exhilarating feeling it is to know that

this decision is so right, leaving this dead-end and continuing where I left off, while not caring in the slightest whether it reaches any more or less than those 15 mythical figures I projected would read this.

21.

But alas! This is what my idealism is –and it is itself another mode too, which I sometimes live in. Is it self-doubt, or, as Bateson calls it, *statesmanship* that calls me to disavow my passion? An Aristotelian "environmental education virtue?"

22.

But do I have to polarize this? -I keep asking myself- is it *impossible* to improve the original flow with judicial use of editing? Let's consider an example: suppose I wrote an idea and, upon rereading it, I realize that it was not clear –it did not allow itself to be expressed in the way I was thinking it. This sort of situation happens continuously (while working sometimes in the opposite direction too, making the occasionally surprisingly exciting utterance). One part of me most certainly thinks a more effective presentation could be made through revision –but I continually oscillate between this consideration and the part of me that questions the purpose of being "effective" and the damage to the living idea caused by re-vision.

In a few weeks, I will have a chance to present my thesis to students and staff at my university. I have been thinking that presenting them with this dilemma and asking for their ideas might be a great way for all of us to work through a real environmental education situation, and create the participatory curriculum I feel has been lacking[51].

To "model reflective practice", as I wrote in the thesis proposal, may offer some

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[51] August note: when I finally did, one of my fellow students, sensing the struggles and dilemmas of this work, asked: "is *stress* sustainable?"

clues as to carving a way forward here. Occasionally, I have made spelling mistakes that would confuse the reader and actually lead them away from seeing my reflective practice. It could be argued that, since this was not the way I was reflecting, and it only signals a disturbance between my brain and hand, that such modification could easily be permitted. But, these very mistakes *indicate*, whether it be a hurriedness or unconcern, a passion or one might say a *drunkenness* with the idea, and they would likely be corrected by the attentive reader anyway. My keeping them also makes a statement against the need for precision that the dominant empirical research environment seems to require, as Antoinette pointed out when we finally met face to face (personal communication, 1 August, 2008). Their inclusion may be warranted.

Let's call *what I intend* my "thesis", and *what I don't* my "arsis", after the Greek terms designating the stressed and unstressed syllables of a metric food. So what is this project I've set before me after all? According to Heidegger, the word "thesis" comes from Greek, meaning place, position, or setting. Indeed, I am writing myself into my place -that is what I have been labouring for since the beginning. But, equally, and in step, my place, my position, and my setting, *is writing itself* into me.

23.

Why call it a prelude? I should not try to answer this question -it is not a quest nor a request for certainty- but I do wonder how this pilgrimage could be anything but one. Perhaps it attests to my failure in my task —and yet it might reflect some success all the while. In another key, it rings out the connection between music and living —how they both show development, or to specific, the relationship between interacting things through time —which really is what our truths are to become if we are to allow them to

live in the world (and to allow other things to live here as well). I hope it also shows the approach I am trying to approach –the one of continually starting at "the beginning", and by this I mean that new and unexpected relations between oneself and one's world open up, if we look carefully, as we stumble towards our conclusions.

Perhaps instead it should be called a *Chaconne*- an instrumental composition based on "a ground". Based on *the* ground, on *our* ground indeed! I could even emulate Purcell's *When I am laid in earth*, with "a vocal line both so free and so continuous that the limitation the composer has imposed on himself is not in the least apparent". That is the type of earthen rootedness I'd allow of a methodology.

24.

Upon reading what I have written so far, I realize that I have only been able to enact a small fraction of the insights I have come to. The reader can easily see this –there are many irrational desires I still entertain despite my having now "seen through" them. I don't necessarily think that this is a bad thing: it may well be that pitting a couple arguments against some established practice in the name of "environmental education" is not, nor should it be, enough to catalyze behavioural shifts. This is particularly true as I've run into several aporias –bringing to light the limitations of logic. Perhaps my sluggishness in self-overcoming points not only to ineptitude but to a deep suspicion of the tool I most cherish: reason. And regarding the aporias –why would I seek to relieve such tension by choosing sides? When my heart is not clear on which way to go, it sometimes feels safest to tread somewhere in the middle –this current issue, "to type or not", has two sides of me pulling in opposite directions. Yes, it is this tension that is the source of creativity, one binary amongst a multitude of others constituting our universe, without which "coming to be" would not be.

With my experience growing vegetables over the years, and with Leopold's biases in mind (Book III, 4), it seems to me that the 'wildness' of my first draft can be tinkered –but that I must be as careful as possible to do it in a way that does no damage. A thriving agro-ecosystem reveals the natural patterns and seasons, changes and constancies that occurred before people began changing the use of the land. It reveals it because it has respected it and found a way to produce what humans need through accepting the constraints of its locality The more intimate I become then with my first draft as a natural entity with its own deep structure, the more I likely I will be able to 'do as little as possible', the more likely I am to know what I can and cannot change –but at the same time accomplish what I need to. On our land, there are some areas where it would be careless to prepare a vegetable bed, depending on factors such as rain flow patterns, land steepness, etc. Changing these spaces could result in major alterations to the integrity of the land (trigger erosion, for example).

Unfortunately, my experience respecting the landscape (and timescape) of a first draft is hardly as developed as my experience growing food. It is only in this thesis that I have come to explicitly recognize the wilderness that flows through my writing –its essential non-humanness- and that the problem of respecting it has come to light. The second draft (or third, or…) will thus be inherently much more risky in lieu of my ignorance. It is likely that I will add or remove *something* that will cause damage to it. Nor am I not sure how I could improve on my thesis-landscaping skills over time. There is no feedback in place that can show me the mistakes that I've made. With these caveats in mind, I will now vigilantly return, with my hand-roasted coffee by my side, read the text again and try to remember from what stage each of the verses came from. To understand it in as many ways as possible is my first task.

I will not impose a Grand Narrative upon the progression, though whether or not

you interpret one is another matter. However, this is not a blind adherence to the code of postmodernism, although the convergence with this term is itself interesting. I have learnt along the way that such "totalizing" is neither ecological nor educational. Having said that, I believe that there are Grander Narratives connecting this work together –grander than the grandest that you or I could ever imagine.

Epilogue

September, 2008.

I feel lucky to have been able to work on a project that I consider as important as it appears untouched. However, having pinpointed what I see as a crucial challenge, it does not follow that I successfully dealt with the problem I laid before us. This is why, as a public experience, handing this thesis into my university is so daunting. I occasionally have nightmares about the gaps I have left in my task, and at the lack of intellectual rigor some of its passages might betray. I still feel haunted by some of the "academic practices" I left behind me on my quest towards living environmental education. I still second-guess my decision not to go deeply into the literature and my resolve to avoid knitting all of the thesis' loose ends together into a story that makes more sense. More importantly, I question my intention to leave in passages for the sake of revealing what my "thesis writing" looked like, despite the fact that I now disagree with them or find them sloppy. I sometimes seriously consider not handing the thesis in at all.

Were I to be completely satisfied with everything I had written, it would be because I had altered the text so much that what appears now as my original process would be a sham –and this possibility is even less satisfying to me than leaving my satisfaction occasionally "incomplete". Being "environmental" is no more achievable than Truth is, but that does not diminish the necessity of our finding "truer" ways of

being in the world. Being an "educator" is not different. If I do end up submitting this paper, it will be because I would like to open up a conversation about aspects of "environmental education", "education research", and "curriculum theory" that keep arising for me. It will be because I would like to affirm a post-postmodern foundationalism: there are indeed epistemological and ontological grounds on which our thinking and doing must be based. It is into these waters that this thesis has tread.

In this epilogue is that I would like to share with you what I feel are the biggest weaknesses about this thesis, shortcomings that sometimes make me shake my head when they come to mind. When looking back at any stage of my life, it is perhaps inevitable that I feel both a sense of success and of failure. The rate at which I realize things and at which I do things is never quite synchronized (perhaps because they propel each other), and I suppose the best I can do is develop these weaknesses into areas of future inquiry. Ending on a confessionary note, I feel that my these issues are of biggest concern:

- I under-addressed my actual life while thesis writing. I did not talk enough about those around me (other than a few stories and some brief mentions of Sophavành and Antoinette, you really don't get any sense of how "thesis writing" interacted in the world I wrote it in). To be sure, this was partly because I am unskilled in this type of analysis, but partly too due to my hesitations with story-making. Further, I could not find any means of connecting in discusssions about the animals and plants around me and the influences that they have had. I feel as though the reader must have no understanding whatsoever of these factors, despite my continual insistence that it is the relationship between one's environment, one's mind and the medium one is expressing through that gives rise to the dialectical process from which emerges bioregional knowing. I do not feel that I

conducted that aspect of my research carefully enough. This is an area for future focus.

- I did not act on many of the things I realized were ecologically invalid. For example, I did not explore conversations with the authors instead of citing their work. Further, I did not explore the issue about why I am not more adaptive. I could devote future research to how to change my actions, how I can defy my sedimented, habitual resistance against change.

- I tried not to be exegetical. However, since he was one of my main sources, and since I had cited so few authors, I feel like I could have provided a closer reading of Bateson's work. I could have been a lot more daring in my connection between Bateson's "mind" and bio-regional learning. For example, I am coming to realize that bio-regional learning is precisely what mind-plus-environment does, and that different self-developing bio-regional epistemologies are therefore, "units of selection". This sheds a new perspective for me on the relationship between conceptual diversity and survival.

- In general, I did not explore some aspects of my style of writing from an educational point of view to the depth I had envisioned while setting out on the thesis. For example, I sometimes wrote in a manner that comes off as overconfident and pugnacious. This is not a pedagogically sensitive way to write. I may, in some cases, be hiding behind this prose. While there were times when I was just expressing very real frustrations I have with so many of our unquestioned assumptions, at other times I was almost certainly not feeling confident with my understanding and was perhaps attempting to cover up my fears.

Appendix

List of unreferenced references starting on page 65.

Page 70: Eisner (1996)

Page 71: "to enact in [their] own writing the same kinds of reflective processes that the book as a whole seeks to encourage in its readers" (Jackson, Boostrom, and Hansen, p. xiiii)

Page 72: "Character teaches above our wills..." (Jackson, Boostrom, and Hansen, 1993, p. 34)

Page 73: "Multiple Versions of the World" (Bateson, 1980, p. 73)

Page 74: "Writing: A Method of Inquiry" (in Denzin & Lincoln, 2005, pp. 959-978)

Page 74: "CAP methodology" (Richardson, 1999)

Page 78: "According to nature, you want to live..." (Nietzsche, 1992, p. 205)

Page 78: Information is the "difference that makes a difference" (Bateson, 1980, p. 250)

Page 79: "I have read many definitions of what is a conservative..." (Leopold, 1995, p. 74)

Page 83: "rhizomatic validity" (Lather, 1993)

Page 83: "There is an ecology of bad ideas, just as there is an ecology of weeds". (Bateson, 1972, p. 484)

Page 86: "It is commonly the most generalized and abstract ideas that survive repeated use..." (Bateson, 1972, p. 502)

Page 87: (Gough and Price, 2004)

Page 87: "The very fact that I am monologuing to you…" (Bateson, 1972, p. 486)

Page 88: "delays that are too long cause damped, sustained, or exploding oscillations…" (Meadows, 1990, p. 9)

Page 88-89: "But whether the corrective change will precisely correct the changes that the load…" (Bateson, 1980, p. 119)

Page 89: "Alas, what are you after all, my written and painted thoughts! ᠅." (Nietzsche, 1992, p. 426)

Page 90: Luhmann (1995)

Page 90: "savoir-faire, savoir-vivre, savoir-écouter" (Lyotard, 1979, p. 18)

Page 90: "somatic changes" (Bateson, 1980, p. 170-172)

Page 98: "it is the highest point of reason…" (Merleau-Ponty, 1964, p. 190)

Page 99: "what would research look like that is grounded in an ecological worldview?" (Pivnick, 2003, p. 143)

Page 100: "an alignment between *what* I [am] researching and *how* I [am] researching" (Pivnick, 2003, p. 144)

Page 100: "requires sitting awhile until we are sure that we are aligned with right action" (Pivnick, 2003, p. 145)

Page 100: "the challenge is that applying *any* method to a topic is putting the researcher in a place of imposition" (Pivnick, 2003, p. 146)

Page 101: "without the imminent danger of hermeneutic satiation" (Heller, 1995, p. 9)

Page 103: (Benyus, 1999)

Page 103: see (Bateson, 1972)

Page 104: "60-80 pages" (Royal Roads, 2007, p. 4)

Page 106: www.daoheuang.com

Page 108: "470-1810 mg/100 g" (de Padua, Bunyapraphatsara, & Lemmens, 1999, p. 383)

Page 108: "Paris, Provence, Florence..." (Nietzsche, 1992, p. 696)

Page 113: statesmanship (Bateson, 1980, p. 246)

Page 113: "model reflective practice" (Affifi, 2007, p. 10)

Page 113: "thesis" (Heidegger, 1977, p. 159)

Page 114: "a vocal line both so free and so continuous" (Scholes, 1970, p. 429)

Page 116; "we are dealing with a species of abstract relations (Bateson, 1980, p. 246)

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