

**Ecocriticism, Geophilosophy**  
**and**  
**the [Truth] of Ecology**

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## Abstract

This thesis addresses the question posed to ecocriticism by Dana Phillips in his iconoclastic *The Truth of Ecology: Nature, Culture, and Literature in America*: “What is the truth of ecology, insofar as this truth is addressed by literature and art?” by examining how ecocriticism has, or has failed to, contextualize ecocritical discourse within an ecological framework. After reviewing the current state of ecocriticism and its relationship with environmentalism, the thesis suggests that both rely on the same outmoded, inaccurate and essentially inutile ecological concepts and language, and argues for a new approach to ecocriticism that borrows its concepts and language from the geophilosophy of Gilles Deleuze and Felix Guattari. The thesis concludes with a reassessment of the work of Barry Lopez, showing how his fiction, when viewed through the lens of geophilosophy, does not support essentialist notions of nature, but rather works to articulate a world of multiplicities, and new modes of becoming.

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What is the truth of ecology, insofar as this truth is addressed by literature and art? And How well—how ably, how sensibly, how thoroughly—do literature and art address this truth?

(Dana Phillips)

For I thought Epicurus and Lucretius  
By Nature meant the Whole Goddamn Machinery.

(Robert Frost)

A pebble is not an easy thing to define.

(Francis Ponge)

One of the most profound of human needs is for the truth of imagination to prove itself in every life and place in the world, and for the world's lives and places to be proved in imagination.

(Wendell Berry)

## Introduction

Scott Slovic argues in an early attempt at defining ecocriticism that literary critics might be able to

contribute to society's understandings of nature if we remember to pay attention to nature itself, if we don't lose ourselves in lectures, theories, texts, laboratories. A powerful admonition: ecocritics need contact not just with literature and not just with each other, but with the physical world. ("Ecocriticism")

This paper may be understood in one respect as a response to his "admonition," but in a somewhat different sense than Slovic and some of his peers with the Association for the Study of Literature and the Environment (ASLE) originally understood, particularly as regards the presumption that contact with the "physical world" means leaving the lecture hall or laboratory, that it is only to be found out from under rooftops, or, even more limitedly, in the "nature" of wilderness trails and parks—as if we were not an integral part of that physical world wherever we are situated; as if sitting at our desks working on an article we weren't part of a vital *assembly* of interconnected, and interconnecting materials, energies, and purposes; as if thought itself were not part of that physical world. I wish to argue against this objectification of "nature itself," and for an ecocritical approach that understands "lectures, theories, texts, laboratories" as being no less "natural" than trees, rivers, earthworms, mountains, and thus just as relevant to ecology. I want to suggest that ecocritical attempts to utilize "nature" or "ecology" as measures of "truth" against which art may be interpreted and judged are too often unable, or unable without the assistance of some form of scientific materialism, to accommodate both mind and matter, culture and nature, art and

science within an encompassing ecological rubric. The need to do so has been forcefully and eloquently stated by Raymond Williams:

In this actual world there is then not much point in counterposing or restating the great abstractions of Man and Nature. We have mixed our labour with the earth, our forces with its forces too deeply to be able to draw back and separate either out. Except that if we mentally draw back, if we go on with the singular abstractions, we are spared the effort of looking, in any active way, at the whole complex of social and natural relationships which is at once our product and activity . . . We need different ideas because we need different relationships. (*Culture* 83, 85)

Ecocriticism needs different ideas. It finds itself in the middle of a critical intersection where the crisis of reason, the crisis of representation and the environmental crisis are meeting head-on. I see this convergence as best characterized, following Williams, as a crisis of relationship. For in the absence of the “great abstractions” and notions of a transcendent world independent from human thought that lies awake at night waiting to be acted upon or represented, or which provides us with a still point of reference or stable foundation for our ethical judgements, we need to find better ways to think and speak of the “actual world,” of *what is*—all of the interrelations that comprise life on earth, including both the mountain range and the computer network. This, I believe, is still the great frontier for ecocriticism that needs to be explored/created.

Giles Gunn’s paraphrase of Clifford Geertz—“advances in humanistic scholarship ... are not measured by the spread of consensus but by the refinement of the debate. ‘What gets better is the precision with which we vex each other’”(226)—should perhaps be mounted over the desk of every scholar, particularly if they are involved in a new field of inquiry such as ecocriticism, an

area of scholarship which still may be too young to have reached a consistent measure of refinement in its debates. Dana Phillips, when he went after the field in his 2003 book *The Truth of Ecology: Nature, Culture, and Literature in America*, used all the refinement of a Highlander's claymore in his scathing critique. And yet there has been surprisingly scant response to Phillips in subsequent years, even by those he was hardest on, which could be seen in itself to be a corroboration of his suggestion that ecocritics are perhaps too "nice," too "belletristic," and that ecocriticism needs to be more offensive, "less devoted to pieties"(241). While he targets a variety of practices and practitioners, his message may perhaps be summed up by the question—"What is the truth of ecology, insofar as this truth is addressed by literature and art?"—and his challenge to ecocritics to be "more imaginatively engaged with the earth as it is"(39, 241). This paper will examine the question and take up the challenge by looking at some ways in which ecocriticism has, or has failed to contextualize ecocritical discourse within an ecological framework ("the earth as it is"), while scrutinizing this discourse with questions about what we mean by the term "ecology" and "ecological," with an attempt towards establishing the adequacy of the language we use to analyze the field of ecocriticism, paying particular attention to, borrowing from Hayden White, the related "prefigurative" moves that may be more "tropical than logical" (*Tropics* 1).

The first chapter begins by reviewing the state of ecocriticism in the context of its relationship with environmentalism and a suggestion that both share a fundamental shortcoming in their reliance on outmoded, inaccurate and essentially inutile ecological concepts. Chapter two explores some aspects of the development of ecocriticism in the context of Dana Phillips's criticisms—particularly with regard to ecocriticism's relationship with the science—exploring questions regarding interdisciplinarity. In the third chapter some of the language and tropes environmentalist and ecocritical discourse have inherited and that continue to be

utilized in dealing with issues such as subject/object dualism, agency, and anthropocentrism will be scrutinized. It will be argued in the fourth chapter that the concepts and language developed by Deleuze and Guattari in their geophilosophy may be better suited for an ecological discourse that honours the radical ecological “truths” of interrelatedness and flux, and which may help to provide an alternative approach to ecological literary analysis for which I offer the term, *geocriticism*. The final chapter provides a conclusion by revisiting one of ecocriticism’s favourite authors—Barry Lopez—to review past treatments of his writing, and re-assess his work with the conceptual *clefs* explored in chapter four, particularly as regards his short fiction.

It is the contention of this paper that ecocriticism continually runs the risk of lapsing into a somewhat utilitarian approach to literary criticism when it trades in literary criticism’s theoretical and philosophical helpmates for mere ideology—green as it may be—or worse, fading into irrelevance due to a reliance upon untenable ecological and philosophical assumptions and language it shares with environmentalist thought that, likewise, is often founded on ideology more than evidence. An ecological literary critique may need some idea of ecological “truth,” some sort of ethical stance upon which to hinge its study of the ecological articulations discernible in literary artistic production; however, it must be one whose ontological presuppositions do not rely on a transcendent notion of being, or on what Gilles Deleuze refers to as an “image of thought,”<sup>1</sup> nor on an ethics that is merely “reactive.” As Claire Colebrook, commenting on Gilles Deleuze, suggests:

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<sup>1</sup> “The image of thought – the discursive structuring and limiting of what can be said and done – rigidly marks out the thresholds dividing self from other, inside from outside, the familiar from the unfamiliar, and, importantly, the ecologically significant from the ecologically expendable.” (Halsey, “Ecology” 34)

We tend to begin our thinking from some presupposed whole: such as man, nature, or an image of the universe as an interacting organism with a specific end. This allows our ethics to be *reactive*: we form our ethics on the basis of some pre-given unity. (*Understanding* 56).

I suggest that Deleuze and Guattari's emphasis on multiplicity and becoming can help to save ecological literary criticism from any reliance upon "truth" as represented by essentialist concepts such as "nature," or the need to garner scientific validation through suspect means.

#### **A note on terminology**

As the words "nature," "the environment," and "ecology" have often been used interchangeably throughout the history of modern environmentalist discourse, I will not attempt to qualify each use of these terms in quotations from other sources. Unless referring specifically to the science of ecology, it may be assumed that these three terms tend to share the common connotation of a common *good* that is somehow apart from human beings yet upon which all human health and wealth is dependent, and which resists the imposition of culture, but in which culture may find its 'salvation'.

# 1 Crisis and Ecocriticism

We face a world which is threatened not only with disorganization of many kinds, but also with the destruction of its environment, and we, today, are still unable to think clearly about the relations between an organism and its environment. What sort of thing is this, which we call “organism plus environment”? (Bateson, *Steps* 448-9)

Respected ecologist and feminist Val Plumwood died from natural causes, not a snake or spider bite ...

(*The Sidney Morning Herald*, March 6, 2008)

Thinking clearly about the relations between an organism and its environment is perhaps, as Gregory Bateson declared some twenty-five years ago, and the above news article demonstrates, a much rarer event than what common sense might suggest. Bateson’s remarks, along with the suggestion of his contemporary, Raymond Williams, that we need better ideas with which to improve our relationships, still resonate today in the midst of the rampant globalization of industrialized, consumptive behaviours that are driving the engines of ecological deterioration. That the environmental movement born mid-century seems not to be gaining sufficient ground to halt, or at least slow down our ecological decline may be viewed as being rooted in problems of conceptualization—we need, not just better ideas in the realm of science and technology, but also better ideas related to language and concepts with which we can think clearly about *all* our relations, ideas that can lead to an ecological *praxis* and to real change.

It has been suggested that ecology “should paraphrase and take to heart Karl Marx,” in that “ecologists have only interpreted the world, in various ways; the point however is to change it” (MacLeay 166). Certainly, the need for change is well documented, given the almost daily reports of the potentially catastrophic impacts of pollution and habitat loss on a variety of great issues, from the loss of

biodiversity, to the changes in earth's atmosphere, and the deterioration of the oceans. Those who are most concerned about the state of the world's environments would agree that it is incumbent upon intellectuals, scientists, politicians, and corporate leaders to attend to these issues on a priority basis, to understand how we have come to this state of affairs, how to prevent further deterioration, and how to mitigate the cumulative impacts that continue to confront us. For the environmentally aware this is a matter of common sense, not common concern, and certainly the "environmental movement" of the past fifty years, following the publication, most notably, of Rachel Carson's *Silent Spring* in 1962, has resulted in a variety of responses. Despite the youthful energy of its beginnings, however, and some great advances in environmental protection, environmentalism as a force for change still remains—in real, concrete terms that correspond to the emergency which, according to groups like the Union of Concerned Scientists<sup>2</sup>, faces us all— a fringe response, a "special interest," and, in the case of environmental literary criticism, a relatively silent one until three decades into the movement. Despite William Rueckert's 1978 call for "the application of ecology and ecological concepts to the study of literature" (Glotfelty xx), and such proto-ecocritical works such as Leo Marx's *The Machine in the Garden: Technology and the Pastoral Ideal in American Culture* (1964), Raymond Williams' *The Country and the City* (1973), and Joseph Meekers' *The Comedy of Survival: Literary Ecology and a Play Ethic* (1974), it wasn't until 1995 that what is now commonly termed the field of "ecocriticism" was formalized with the establishment of the ASLE. Lawrence Buell has commented that the "belatedness and liminality" of what he refers to as the "environmental turn" in literary-critical studies "seems

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<sup>2</sup> For example, the UCS has concluded that, "peer-reviewed studies published since the release of the IPCC (AR4) provide ever more compelling evidence that swift and deep reductions of heat-trapping gasses are needed if we are to avoid catastrophic climate change." See [http://www.ucsusa.org/global\\_warming/science\\_and\\_impacts/science/latest-climate-science.html](http://www.ucsusa.org/global_warming/science_and_impacts/science/latest-climate-science.html)

strange" (2005, 1). Moreover, he suggests that ecocritics may still seem to be "tokenized as players in environmental dialogue," though he opines that this may have more to do with "our own internal disputes and uncertainties about role, method and voice" (5). Ecocriticism has certainly had its share of disputes and contention within and from without its ranks since 1995, and it still holds a relatively fringe position within discipline. There are a variety of reasons for this situation that have to do with the nature of literary study as it is conceived and practiced; however, it may also have to do with ecocriticism's origins in, continued close ties to, and the inherent limitations that exist within the environmental movement itself. The implications of this situation are examined below.

### ***common sense and the crisis of reason***

On April 22, 1970, twenty million Americans celebrated the first Earth Day. That was one out of every 10 Americans. The environmental movement in the U.S.A. achieved its greatest success in the next decade with creation of the Clean Air Act, the Clean Water Act, the Endangered Species Act, and the Environmental Protection Agency. Since then, the ubiquity of, and speed by which the development of local, national and international organizations mandated to promote environmental awareness, and protection has occurred is unprecedented among other areas of social activism. Still, relative to the enormity of ecological issues plaguing most areas of the planet, the concrete gains made by this vast network of activists does not compare with advances in issues related to the rights of women and ethnic minorities – in the context of western nations, at any rate. In fact, with regard to wide-ranging ecological changes—*notwithstanding* Al Gore's PR campaign for the atmosphere which seems to have come and gone—a losing battle seems to be raging. As the United Nation's 2005 *Millenium Assessment Report* concludes: "At the heart of this assessment is a stark warning. Human activity is

putting such strain on the natural functions of Earth that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted" (5).

Ecofeminist Val Plumwood characterizes the situation as "crisis of reason":

In the ecological parallel to the *Titanic* story, we have reached the stage in the narrative where we have received the iceberg warning, and have made the remarkable decision to double the engine speed to Full Speed Ahead and go below to get a good night's rest...Although the long-term portent of such processes potentially disruptive to survival as deforestation, global warming and ocean degradation, is not yet fully grasped, and devastating forms of positive-feedback are a real possibility, a low priority is being accorded the attempt to deal with them. This is not a rational course, and if we are told it is, we need to look more carefully at what is meant by 'rational' (*Environmental* 1).

In order to try and understand why, after over three decades of environmental activism, we remain on such an irrational course, a pair of strategists and organizers who have worked with a number of environmental groups over the previous decade conducted interviews with more than twenty-five of the environmental community's top leaders, thinkers and funders, summarizing their findings in an essay entitled "The death of environmentalism: Global warming politics in a post-environmental world." In it they describe an environmental movement that is largely ineffective due to its continued status as a "special interest." It is described as lagging behind, a movement whose "foundational concepts, its method for framing legislative proposals, and *its very institutions* are outmoded," which too narrowly defines "environmental" problems, and relies almost exclusively on short-sighted technical solutions. What is particularly interesting is how they conceptualize the root cause of this situation:

Environmentalism is today more about protecting a supposed "thing" -- "the environment" -- than advancing the worldview articulated by Sierra Club founder John Muir, who nearly a century ago observed, "When we try to pick out anything by itself, we find it hitched to everything else in the Universe." ...Thinking of the environment as a "thing" has had enormous implications for how environmentalists conduct their politics. (np)

Despite the efforts of scores of environmental philosophers who have argued against anthropocentric thinking, and the deconstructions that the concepts of "nature" and "environment" have undergone, Shellenberger and Nordhaus still see these terms retaining their "mythic and debilitating power within the environmental movement and the public at large," for, as they point out, if "environment" was understood to include humans, "then the way the environmental community designates certain problems as environmental and others as not is completely arbitrary." They ask why "a *human*-made phenomenon like global warming -- which may kill hundreds of millions of *human beings* over the next century [is] considered 'environmental'," while poverty and war are not. The authors conclude that the real crisis is that

environmentalism will never be able to muster the strength it needs to deal with [for example] the global warming problem as long as it is seen as a "special interest." And it will continue to be seen as a special interest as long as it narrowly identifies the problem as "environmental" and the solutions as technical. (np)

There are two central issues at play here. One is the objectification of the "environment" as a "thing" to be protected (or abused) by human subjects that creates a distancing from results and responsibilities for both abusers and protectors. The other is the narrow focus of mainstream environmental activism

that has difficulty in addressing the variety of “root” causes that are implicated in any one environmental issue. As a Sierra Club's Global Warming Director has admitted:

We need to remember that we're the environmental movement and that our job is to protect the environment ... If we stray from that, we risk losing our focus, and there's no one else to protect the environment if we don't do it. We're not a union or the Labor Department. Our job is to protect the environment, not to create an industrial policy for the United States. (Shellenberger and Nordhaus, np)

Certainly, there has been much progress in the area of environmental protection in terms of small scale, local issues where there can be strong elements of “environmental justice” that act on all relevant socio-economic and political fronts. It is when it comes to galvanizing political action concomitant to the scale of global environmental distress that the shortcomings of the environmental movement are most distressingly evident.

It would not be unfair to conclude that evidence such as this points to a failure of traditional environmental ideologies, activism, and discourse. Nor is this a symptom specific to political or corporate powerbrokers. The attitude towards the environment in the general population also seems to be deteriorating, despite the proliferation of recycling, and the increased availability of “green” and organic products on store shelves. As an Environics survey showed:

... the number of Americans who agree with the statement, "To preserve people's jobs in this country, we must accept higher levels of pollution in the future," increased from 17 percent in 1996 to 26 percent in 2000. The number of Americans who agreed that, "Most of the people actively involved in environmental groups are extremists,

not reasonable people," leapt from 32 percent in 1996 to 41 percent in 2000. (Shellenberger and Nordhaus, np)

And while it may be argued that given Al Gore's "Inconvenient Truth" campaign, recent events like the British Petroleum oil spill in the Gulf of Mexico, and the increasing consensus around the world that anthropogenic climate change is a reality, these statistics may be becoming outdated, for every book that is published with an environmentalist agenda, there is at least one other such as, *Green Hell: How Environmentalists Plan to Control Your Life and What You Can Do to Stop Them*, by Steve Milloy, or *The Skeptical Environmentalist*, by Bjorn Lomborg, that suggest that the crisis is at least partly manufactured—not merely the product of manufacturing.

Slavoj Žižek has his own view on why "ecology as an organized socio-political movement has to a large degree disappeared" (2008, 53). He does not attribute this so much to our ontological separation from nature, but rather to our "common sense." He suggests that our "very 'relationship of faith with reality itself' is the main obstacle that prevents us from confronting the ecological crisis at its most radical" (59). There is a level of disbelief in ecological catastrophe, not because of our faith in last-minute rescue from the techno-scientific cavalry, but because we are immersed in a life-world that we fundamentally trust:

Disbelief in an ecological catastrophe cannot be attributed simply to our brain-washing by scientific ideology that leads us to dismiss our gut sense that tells us something is fundamentally wrong with the scientific-technological attitude. The problem is much deeper; it lies in the unreliability of our common sense itself, which, habituated as it is to our ordinary life-world, finds it difficult really to accept that the flow of everyday reality can be perturbed. Our attitude here is that of the fetishist split: "I know that global warming is a threat to

the entire ecosystem, but I cannot really believe it. It is enough to look at the environs to which my mind is wired:

[T]he green grass and trees, the whistle of the wind, the rising of the sun... can one really imagine that all this will be disturbed? You talk about the ozone hole, but no matter how much I look into the sky, I don't see it—all I see is the same sky, blue or grey! (58)

Everyday life is immersed in a life-world that is perceived as part of a seamless whole. This may be our phenomenological experience, but it is also the message that environmentalism has been broadcasting since its beginnings. Holism undergirds the environmentalist's rallying cry, "everything is connected to everything else." Common sense assures us that "nature" can be counted on to stick by us through thick and thin:

[I]n order to inhabit a small part of reality that appears within our horizon of meaning, we have to presuppose that the Reality-in-itself ("different and other than the mind") that sustains our ordered world is part of reality, is an ordered and seamless Whole. In short, we have to have a faith and confidence in Reality: nature-in-itself is not merely a meaningless composite of multiples, it is Nature. What, however, if this relationship of faith in Nature, in the primordial harmony between mind and reality, is the most elementary form of idealism, of reliance on the big Other? What if the true materialist position starts (and, in a way, ends) with acceptance of the In-itself as a meaningless chaotic manifold? (Zizek 2008, 58)

This tension between a desire for a common sense understanding of Nature and Ecology, and the fear that our faith may be undermined at any time by the latest scientific findings is also being played out in the field of ecocriticism.

Dana Phillips has asked, "What is the truth of ecology," and it would seem that, according to the level of debate by mainstream environmentalists and ecocritics regarding our conflicted understanding of the ecological nature of nature, he must still be waiting for a reply. For most environmental praxis the truth is what a particular subset of scientific ecology states at any given time about a particular aspect of one biome. These truths—historically contingent as they are—are useful for guiding human actions at a certain place for a certain time. But, as Daniel Botkin, Dana Phillips, and others have emphasized, the truth is much more like "a meaningless chaotic manifold" than it is a reliable and stable background upon which to construct our theories and support our actions. This is the dilemma for environmental praxis: while it is reliant upon up-to-date scientific ecological information for directly addressing environmental protection issues, the underlying, root causes, which are also ecological issues—aspects of our mental and social commons—are difficult to address because they are often such a fundamental part of our "common sense." However, the term "ecology" is also used to denote a way of thinking, a perspective that needs to be informed by additional sources of knowledge other than science. Environmental praxis requires a *point of view*, however, that goes beyond the naiveté of those of us who believe we can assume, along with William Cronon, "that we can pretty easily recognize nature when we see it and thereby make uncomplicated choices between natural things, which are good, and unnatural things, which are bad" (25-26). Such a view, while not as prevalent in ecocritical writing as it may once have been, is still strong enough to provoke one literary critic unsympathetic to theoretical approaches to nature and literary criticism in general, to respond recently with: "We write about literature under the influence of ecology. It's really not that complicated" (Robisch 701).

The common sense approach established during the early years of ecocriticism was premised upon a shared concern for praxis, for effecting cultural change that would have a real impact the health of the environment. Ecocriticism, both in its origins and as one of several intellectual responses to the rise of the popular environmental movement, and its self-positioning as a form of cultural critique via the study of literature and the environment, pre-supposes a “real-world” relevance and supporting role for environmental praxis. The determination by early members of ASLE to set literary criticism free from the ivory tower into the arms of the actual world of nature and environmental praxis was seen as providing a new and needed relevance for the field; however, as it was accompanied by what was seen as a natural corollary—a good measure of anti-theory sentiment—and an ignorance of current ecological science, the result was a reliance on the same unexamined and outmoded assumptions about ecological harmony, balance and wholeness that the environmental movement itself was informed by. This situation has changed somewhat. Partly in response to the only sustained effort to take early ecocritics to task for this shortcoming—Dana Phillips’s *The Truth of Ecology*—it has been widely accepted that ecocriticism needs to be more informed by advances in both theory and science.

However, the situation is tense. This tension is the result of ecocriticism’s desire to provide an additional form of environmental *praxis*, which also must respond to art through the lenses of both the seemingly inherent ontological conundrums provoked by our historical notions of “nature” and “the natural,” and the hard facts of science. The next chapter will highlight some of the resulting confusion that has occurred, and suggest that the core issue for ecocriticism today is its need for theoretical tools that can assist with avoiding the extremities of either vague, fragile assumptions regarding the ontological status of nature and culture, or naïve mis-usages of scientific materialism.

## 2 Ecocriticism and a Tale of Two Cultures

How can ecocriticism be more analytical without becoming less politically efficacious? As the young critics disdain the loose thinking of some of their elders, shall ecocriticism replace the Thoreauvian father with other fathers, or better yet, with mothers, or read Thoreau more carefully? Can ecocriticism be re-grounded in ecofeminism or postcolonial studies to meet racial and ethnic inequalities? What about globalization? Where do the roads of inquiry meet and where do they diverge; what happens at these crossroads? One thing is certain: traditional theories of representation are under attack because of the narrowness of their interests and especially because younger critics have become suspicious of personal narratives about nature produced from privileged positions of gender, class, and ethnicity. (Cohen, "Blues" 29)

[h]aving an ecological outlook does not mandate embracing the lessons of scientific ecology; nor do scientific ecologists necessarily have "ecological worldviews" (Keller and Golley 3).

### ***introduction: "Blues in the Green"***

Since its genesis in the early 1990's, literary ecocriticism has faced questions about its corpus (its emphasis on nature writing and nature as wilderness), and about its theoretical framework (its emphasis on representation and mimesis as standards for measuring the ecological worth of literary texts). It has been pointed out by more than one commentator that ecocriticism is a critical movement known more for its subject matter than for its theoretical perspectives. In fact, ecocriticism has sometimes been criticized roundly for its relative indifference to theory (and even actual disdain during the period which Laurence Buell refers to as the "first wave" of ecocriticism), most notably by Dana Phillips. While Phillips's 2003 attack on the early ecocritics' aversion to theory, and on their preoccupation with literary realism and "nature writing," was acknowledged by many as a necessary tonic to the overindulgences of the first wave of ecocriticism, few have responded to his call for a more rigorous, theoretically mature critical practice. This is not to say that ecocritical practice has not changed in its second decade, broadening its

purview beyond American literature, and beyond “nature writers,” to include a variety of genres, literary periods, and methods of analysis. However, it is often difficult to see how “ecocritical” analyses in general differ substantially from other forms of literary criticism that have focused on the use of natural settings as literary devices, prompting Michael Cohen to call for a “more analytical ecocriticism,” and even more subversiveness (Cohen 2006: 16). As Serpil Oppermann recently observed:

... despite a number of attempts at its theorizing from writers such as SueEllen Campbell, Dominick Head, Neil Sammels, Dana Phillips, and Gretchen Legler, who draw mostly from various lines of poststructuralist thought, ecocriticism still remains controversial and antagonistic about its insufficient theoretical engagement. (107)

It is not that ecocritics have not incorporated theory into their praxis. In fact “second wave” ecocriticism has, as Ursula Heise notes, evolved into a “highly diverse field encompassing a wide variety of genres and authors in the United States and abroad, as well as the full spectrum of cultural theories and methodologies, from Marxism and poststructuralism to feminism, critical race theory, queer studies, and cognitive science” (Heise 2006, 290). This situation has been claimed as one of ecocriticism’s unique and appropriate aspects by the more anti-theoretical voices in the field, satisfied that it occupy a place in the discipline as an “emerging methodology, remain[ing] open, flexible, capacious, and loosely constructed, capable of supporting the most diverse and sophisticated researches without spinning off into obscurantism or idiosyncrasy” (Tallmadge and Harrington, xv). This places it on “shaky grounds,” according to Oppermann, making it “potentially fuzzy in its method.” She believes that ecocriticism needs its own systematic theoretical ground, rather than appearing as an “unfortunate academic janus [sic] with procreating faces” (107-8).

Developing a more unified theoretical foundation may also be crucial in terms of ecocriticism's understood commitment to "changing things" (Estok 230). In a recent assessment of the state of the field, Michael Cohen states, "the received ideas of the Literature & Environment community, especially about the value of personal narratives ... to save the world, whatever relationship any human narrative might have to ecology, global climate change, the World Bank or the Wal-Mart economy, are worse than sterile" ("Handles" 16). Cohen's assessment of ecocriticism's contribution to 'saving the world' somewhat mirrors the situation of the environmentalist movement itself, which is seen by some to be, at best, failing in its bid to "save" the environment, and in its worst configuration, to be complicit in the human domination of nature<sup>3</sup>. Furthermore, as Cohen has recently observed,

[o]pen questions inside and outside of ecocriticism include the following: Is "literature and environment" a sub-discipline of literary studies, or an extension out of literary studies into environmental sciences, or a practice largely within the paradigms of the humanities and social sciences? ("Blues" 18)

That questions like these are still being asked, despite it having been over a decade and a half since the formation of the ASLE, suggests that this is still a field labouring to be born—one that tends to theorize through the literature it canonizes, rather than through a distinctively ecocritical theoretical base, and one that, while constitutionally bound to interdisciplinarity, has great difficulty in determining how to engage with the sciences. This chapter will review past and current efforts at defining ecocriticism, and explore what this paper contends is the central issue

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<sup>3</sup> See Curtis White, *The Barbaric Heart*.

for the development of a distinctively ecocritical foundation –that of its relation to ecology.

### ***The Great Traveling Eco-Reality Show***

Cheryll Glotfelty in her introduction to the seminal collection, *The Ecocriticism Reader*, defined ecocriticism as "simply ... the study of the relationship between literature and the physical environment," an "earth-centered approach" to literary studies that interrogated texts on a variety of widely varying questions, such as "What role does the physical setting play in the plot of this novel?" and, "Are the values expressed in this play consistent with ecological wisdom?" (xix) For many critics it is the latter that is of foremost concern, both as an academic *raison d'être*, and as a point of contention regarding the sources and the nature of "ecological wisdom." Ecocritics will easily agree upon this basic distinction, that ecocriticism is grounded "in the bedrock of natural fact, in the biospheric and indeed planetary conditions without which human life, much less humane letters, could not exist" (Tucker 505), yet, beyond this, regarding questions of how to relate literary study with ecological facts, or, more fundamentally, how to *translate* scientific fact into tools for literary criticism, there is little agreement; in fact, there is little discussion. For most ecocritics, the "bedrock of natural fact" is *simply* given, as Glotfelty's introduction suggests, while, as William Howarth observes in the same collection, the term 'ecocriticism' "implies more ecological literacy than its advocates now possess ..." (163). However, if the field of ecocriticism is to begin to define "its own systematic theoretical ground," it must reconsider, in the first place, what it means to be "eco."

Ecocriticism was born out of a shared concern about anthropogenic environmental deterioration. And, like the environmental movement itself which is one of its parents, it also shares, in its least complicated moments, a tendency

towards, as William Cronon suggests, a “naïve realism” regarding questions of natural and unnatural, good and bad” (“Introduction” 25-26). Unfortunately, much ecocriticism that has been carried out, regardless of its methodological sophistication, has often been premised on rather simplistic notions of good and bad, despite, or because of the fact that “nature” has been (and will always be, according to Cronon), “contested terrain” (52), or, in Donna Haraway’s terms, “a commonplace” (Haraway 296). Ecocritics have relied on some version of “nature” to define the “eco” aspect of their practice, even though the historical problematics of the term, which Raymond Williams called “the most complex word in the English language” (*Keywords* 184), reveal a long history of contestation:

Nature has meant the ‘countryside’, the ‘unspoiled places’, plants and creatures other than man ... the goddess, the minister, the monarch, the lawyer ... the source of original innocence ... the selective breeder ... Numerous natural examples could be selected to support any of these versions [of what Nature teaches us]: aggression, property, parasitism, symbiosis, cooperation have all been demonstrated, justified and projected into social ideas ... (188-89)

These various usages of nature, and representations of the natural world by writers has been a central focus of many ecocritical treatments of literatures past and present, and interrogations of literature’s complicity in the “reification and possession” (Haraway 296) of nature are becoming more common. Yet, for the most part, as John Parham has observed, just about all ecocritical works “fail to reflect upon their terms of reference” (“Preface” xii). Given the contested terrain of such terms as “nature,” “natural,” “environment,” “culture,” and even “ecology,” this has led to a good measure of confusion within the field. It is this confusion that prompted Dana Phillips to take many ecocritics to task for their hasty and

uncritical use of language—primarily borrowed from science—that is vague, misleading, and, sometimes, just plain erroneous. It often appears that critics are simply mirroring popular and promiscuous usages of terms like “ecology” and “environment,” which Jennifer Daryl Slack, in *The New Keywords: A Revised Vocabulary of Culture and Society*, notes “exceed attempts to assign them identifiable referents.” These usages, she continues, are “infused with affect,” they “allude to ‘what matters,’ intimate something ‘critical’ demanding attention, imply the importance of certain kinds of (inter)relationships, and invoke the idea of (re)connecting in ways that suggest much at stake” (108). John Parham notes that these terms are used “uncritically and often interchangeably,” despite the fact that they, along with related terms like ‘conservation,’ have distinct meanings that, “whether seen as scientific or as socio-political paradigms ... signify distinct (that is, different) philosophies” (“Preface” xii). As a result, because of the highly charged environmentalist context within which they are used, added to their philosophical weight are strong moralistic valences or unspoken ethical assumptions that often seem to provide a piece of ecocriticism with its only theoretical foundation.

This has been most notably the case in what Lawrence Buell refers to as the “first wave” of ecocriticism, which was also the period of practice that suffered the brunt of Dana Phillips’ attack. Phillips’ central message vis à vis ecocriticism and the science of ecology is that ecocritics, like many environmentalists are too eager to take “the truth” of ecology for granted. That is, they want to view the world ecologically (through “freewheeling speculation,” 82)—using the term ecology to merely designate a “point of view”—while misrepresenting ecology as a scientific process and body of knowledge, often ending up with a neo-pastoralism that is at odds with ecological facts. Such ecocritics, Phillips suggests, “seem to imagine that by borrowing the terms and by taking on the positive charge of ecology and of

other more or less closely related disciplines, ecocriticism can proceed relatively free of doubt: its close relationship with science, especially with ecology, provides it with all the moral and philosophical sanction it needs to back up its claims" (142).

The urge within "first wave" ecocriticism to identify and highlight the potential of literary texts for fostering a heightened awareness of nature and of our embeddedness in the natural world, and for promoting ecocentric values, was most notably fuelled by Lawrence Buell in his influential 1995 book *The Environmental Imagination*. For Buell, and many other ecocritics then and since, the "more-than-human-world," to use David Abrams's term, is assumed to be the essential source for developing an environmental ethic, and it is our distancing from this source that is one of the fundamental causes of our careless destruction of natural habitats. Moreover, Buell posits that literary texts must inexorably involve a "certain kind of environmental referentiality," and that while "language never replicates extratextual landscapes ... it can be bent toward or away from them" (*Future* 32-33). This is how Buell in his 2005 book *The Future of Environmental Criticism* defends against Phillips's charge of attempting to rehabilitate mimetic representation, an attack that Buell contends relies on a reductive model of mimesis (32). What is of particular interest here is the ongoing assumption that "bending" language toward natural landscapes is good for the environment, that in such literary contexts one of the most significant questions is how well, how accurately, or how effectively the text accomplishes this—consciously, or not.

Phillips's main concern is the way some ecocritics, fully supported by Buell, seem to want there to be "a relationship between trees in literature and trees in the world closer than a relationship of mere semblance would be" (6), that they promote an "environmentality" in literature that would evoke "the natural world through verbal surrogates," in an attempt "to bond the reader to the world as well

as to discourse" (Buell, *Imagination* 102). Phillips's criticism of Buell and his notion of textual "environmentality" is perhaps best summarized in his consideration of the way Buell utilizes Hopkins's poem "Pied Beauty," which for Buell exemplifies the way that "aestheticism produces environmental bonding" (98). For Phillips, Buell's "twists of logic" and blatant disregard for the poem's grammar are mere attempts to encourage his reader "to accept the paradoxical idea that heightened verbal artifice can effect a heightened visual perception of the natural" (169). For Buell, "Environmental bonding" is one of those assumed goods that ecocriticism is charged with determining "in the spirit of commitment to environmental praxis" (*Imagination* 430n20). Commenting on this definition of ecocriticism, Phillips asks "how a spiritual 'commitment to environmental praxis' on the part of ecocritics is supposed to complement the good work done by environmentalists and ecologists," and suggests that ecocritics "would seem to be in the unenviable position of cheering on the efforts of those in other fields who are better able to engage directly and professionally in environmental activism and the production of ecological knowledge" (161).

Phillips's reservations about the state of ecocriticism practiced by this early approach aside, a commitment to environmental praxis, and to the prevention of further ecological deterioration of the earth's environments, remains a common goal of ecocriticism with its "triple allegiance to the scientific study of nature, the scholarly analysis of cultural representations, and the political struggle for more sustainable ways of inhabiting the natural world" (Heise 506). Ursula Heise and others have admitted that Phillips's call for more scientific literacy, and his cautioning "against undue metaphorization, moralization, or spiritualization of scientific concepts" (Heise 510) is well taken. Ecocritics who want to use "nature" as some form of ecological yardstick risk adopting more of an idealist than realist position. As Phillips comments:

That ecological realities aren't obvious also means that the material world cannot be treated as a quick study, and that it offers very little support for philosophical idealism. In the material world, there are "lines of resistance," to recall Umberto Eco's helpful phrase. (143)

It becomes unmistakably clear in Phillips's analysis that a "truth of ecology" that would purport to provide ecocriticism with a source for "ecological wisdom" is not so easily gleaned. While Phillips provides the prescription of a "hybrid blend of theoretical and philosophical insight, awareness of scientific method, and a thorough acquaintance with the facts (who knows what they'll turn out to be)" (39), Heise notes that his analysis does not really provide an "alternative model for linking ecology and ecocriticism" (510), realizing at the same time that this is perhaps a tall order. Nonetheless, given the misconceptions about ecology and nature that tend to undermine both environmentalist and ecocritical ethical claims, it is no wonder that Greg Garrard claims that this issue may be one of the key challenges for ecocritical scholarship:

This notion of nature's wisdom is so deeply ingrained in environmentalist discourse and ecocriticism that only sustained research at the borders of the humanities and the new postmodern biological sciences can disentangle it from our systems of basic presuppositions. (*Ecocriticism* 178)

The level of scientific literacy that is thus purported to be crucial for a properly informed ecocriticism suggests the need for a greater level of interdisciplinarity than is often practiced by literary critics. The next section will examine how this concern has been articulated and addressed by some ecocritics, and the difficulties and even conflicting results that may be inherent in such a proposition.

## ***“Being Interdisciplinary Is So Very Hard To Do”***

Although poets may aspire to understanding, their talents are more akin to entertaining self-deception. They may be able to emphasize delights in the world, but they are deluded if they and their admirers believe that their identification of the delights and their use of poignant language are enough for comprehension. Philosophers too, I am afraid, have contributed to the understanding of the universe little more than poets ... They have not contributed much that is novel until after novelty has been discovered by scientists ... While poetry titillates and theology obfuscates, science liberates.

(from “The Limitless Power of Science,” Peter Atkins, 1995)

The sentiment expressed by Atkins above may not be always so “belligerently expressed,” explains Mary Midgley in *Science and Poetry*, but it is not rare (21). This comment suggests that, despite the common refrain of ‘interdisciplinarity’ that is in circulation among academics, little has changed despite the passage of half a century since C.P. Snow’s famous “two cultures” lecture of 1959, in which he bemoaned the “gulf of mutual incomprehension” that existed between the sciences and humanities:

The clashing point of two subjects, two disciplines, two cultures—of two galaxies, so far as that goes—ought to produce creative chances. In the history of mental activity that has been where some of the break-throughs came. The chances are there now. But they are there, as it were, in a vacuum, because those in the two cultures don’t talk to each other. (6)

At the same time, English as a discipline, as Joe Moran points out, “has always been driven by competing impulses: one that seeks to make it more of a ‘hard’ science by limiting its area of concern to a recognized phenomenon, ‘literature’; and another that aims to establish it as the interdisciplinary centre of the humanities” (17). The history of its development as a discipline is a history of colonizing ideas from” other disciplines, so that Harold Rosen calls it “the least

subject-like of subjects,” with regularly shifting frontiers whose practices appear “so diverse, contradictory, arbitrary and random as to defy analysis and explanation” (Moran 19-20). While literary studies has long looked to other disciplines for insights to assist with the interpretation of texts, the inherent interdisciplinarity of ecological literary criticism is seen by many critics as one of its most defining characteristics.

Dana Phillips points out, however, that this hasn’t resulted in an ecocritical practice that is necessarily informed by such areas as science studies, philosophy of science, environmental history, and ecology. Phillips argues that, “most of ecocriticism's efforts at being interdisciplinary have been limited to troping on a vocabulary borrowed from ecology” (ix). Here is where the crux of Phillips’s indictment of the dominant mode of ecocriticism is located. In neglecting to theorize its practice with a more “critical ecology,” one that is premised upon an understanding of ecological “truth” as informed by scientifically verified facts, ecocriticism is in danger of misrepresenting the very nature it is dedicated to evoking, and protecting. It is upon this understanding of truth—contingent as it may be on the limitations of the scientific methodologies employed, and specific hypothesis to be tested—that scientific theories are constructed, and which, particularly in the case of the science of ecology, are infinitely complicated by the contingencies of life itself:

Contingency in ecological systems means that there will be few statements (generalizations, hypotheses, laws, predictions, or forecasts) that apply to all ecological systems ... Certainly, no ecological principle will literally apply to the entire universe, because the domain of ecology includes only some of the entities and processes that occur in the universe. (Pickett et al, 198)

Moreover, Phillips argues, “we shouldn’t go seeking for the truth *of ecology* without first taking into account the limited role of truth *in ecology*” (74). When literary critics assume that they are being ecological in the scientific sense, when they presume to ground their interpretations on “the bedrock of natural fact,” on the “the finite environment that a reader or writer occupies thanks not just to culturally coded determinants but also to natural determinants that antedate these, and will outlast them” (Tucker 505), they are most likely unaware, or ignoring the fact that “there are no universal ecological principles that enjoy support from ecologists, and moreover, no key concepts that are free of ambiguity, disagreement over meaning and inconsistency of use. (Morito 77). This situation makes it very difficult to appeal to anything approaching an understanding of “nature’s wisdom,” thus undermining many ecocentric, radical environmentalist positions, and has led to a certain level of despair among ecocritics about how they are to “know their science.” The British ecocritic Terry Gifford has recently asked, “Whose version of ‘ecology’ should we be using?”(10). Recognizing the difficulties pointed out by Phillips and others, he laments over the necessary reliance upon mediators who can communicate science to laypersons, while having to deal with such a constantly morphing field like ecology. “Ecology,” as Phillips concludes from his survey of the discipline, “continues to be a makeshift affair. No doubt this is precisely why it seems attractive to the kind of scientist who enjoys poking around outdoors and tinkering with things to see how they work” (80). Attractive as well to the literary critic hungry for new metaphors and models with which to make sense of literary “environmentality” (Buell, *Future* 30).

Still, the potential for new interdisciplinary approaches and insights through a rapprochement between the “two cultures” has exhilarated many in the humanities departments, and led to several strains of scientifically valenced ecocriticism. While most ecocritics still utilize common critical methodologies to

examine the relationships between literary works and the environment in which its subjects are situated, or the ecological implications of how the non-human is treated in a particular text, some have ventured into new territory – goaded in part perhaps by the criticisms of Dana Phillips, and others such as Karl Kroeber, Joseph Carroll, Glen Love, and Leonard Scigaj— into attempts at utilizing science in literary interpretation. Glen Love, adapting the thoughts of Joseph Carroll and E.O. Wilson to literary studies, has taken the lead in promoting science as a key tool for literary critics, claiming that "Darwinian evolutionary theory and the modern life sciences offer the truest basis for dealing with the perils and opportunities of being human" (165). Laura Walls, Michael Cohen, and others have responded to such efforts with some concerns about confusing the roles of science and the humanities. Cohen has voiced a strong concern about how literary critics utilize science. Echoing Gifford's frustration, he too wonders, if ecocritics are to become more scientifically literate, and to ground their sense of literary value in science, or at least, in some sort of ecological truth, how they as laypersons are to judge which science to believe. More importantly, he asks, "where—to whom—do we grant authority? Why? What does that make of us?" (2006: 19); indeed, the question of authority is an extremely important one when it comes to attempts at conjoining of science and the humanities, which may be as impossible as interspecies breeding, or, at least highly problematic. This is particularly evident in recent attempts to utilize adaptationist theories by literary critics.

Ecocritical interdisciplinarity has perhaps no greater exponent than Glen Love who, as Lawrence Buell has described, "argues most explicitly for a kind of unified field theory of eco-critical discourse" ("Insurgency" 703), which is largely based upon the thoughts of Joseph Carroll and the renowned biologist E.O. Wilson. Wilson's 1999 book *Consilience: The Unity of Knowledge* has been perhaps the most influential piece of science writing for literary criticism in recent times. While its

reception by those in the humanities has been mixed, Wilson's book is championed by both Carroll and Love as providing an essential guide for interdisciplinary work between science and literary criticism. Wilson's brand of "consilience," and the varied responses it has engendered, are worth particular attention at this point for the light they shed on the question of interdisciplinarity, particularly given the broad claims made for the potential that the evolutionary sciences, in particular, may have for ecocriticism. As Glen Love states:

I believe that no interdisciplinary study has more to offer us humanists now than evolutionary theory as it relates to biology, ecology, the neurosciences, psychology, anthropology, biogeography, linguists, and related fields... This is the new frontier of knowledge for the coming century. Thus, the understanding of human nature and human behavior may be redirected along truly ecological lines, allowing our place in the natural and social environment to be reopened for fresh interpretation. (166)

Details of how this may be so have been weakly described by Wilson, sketched out by Love, and more determinedly worked out by Carroll. The proponents of "literary Darwinism" are most successful in accounting for evolutionary accounts of the origins of putative universals in human mental and emotional responses, and in speculative explanations regarding the adaptive function of the development of human arts, but less so in formulating coherent and practical literary theories. Wilson's claim that "even the greatest works of art might be understood fundamentally with knowledge of the biologically evolved epigenetic rules that guided them" (213), and that the role of the arts "is the transmission of the intricate details of human experience by artifice to intensify aesthetic and emotional response," that "the arts are the antithesis of science" (218), suggests that in Wilson's view, as Laura Walls writes:

Literature is about feeling, science is about knowing ... literature cannot be independent and equal, for it is not a way of knowing but of expressing, and what it expresses are the emotions engendered by our biology and hence explainable by the knowing scientist. (Walls 202)

Granted, the weaknesses in Wilson's chapter on the arts, with his faulty contention that works of art merely "communicate feeling directly from mind to mind, with no intent to explain," has been acknowledged by such supporters as Joseph Carroll, still the tenor of his argument is clear and consistent with other forms of "evocriticism"<sup>4</sup>. Wilson essentially repudiates any notion of the arts as a form of knowledge in and of themselves when he hypothesizes that "even the greatest works of art might be understood fundamentally with knowledge of the biologically evolved epigenetic rules that guided them" (Wilson 213). While some *explanation* of an artwork may certainly be formulated through such means, it may well be that it would explain more about evolutionary psychology than about literature. The essayist Wendell Berry, in his challenge to Wilson's arguments, *Life is a Miracle: An Essay Against Modern Superstition*, also sees his version of consilience to be somewhat lopsided claiming that Wilson "wishes to see all the disciplines linked or unified--but strictly on the basis of science" (31). He goes on to state:

Though he speaks of the need for "collaboration between scientists and humanities scholars," it is hard to see what use he would have for the humanities scholars, except maybe to provide a little bibliography. His "working hypothesis" of "the biological origin of

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<sup>4</sup> | On the concept of evocriticism, see Boyd, Brian. *On The Origin of Stories: evolution, cognition, and fiction*. Cambridge, MA: Harvard UP, 2009.

the arts" is strictly a scientific hypothesis, and it proposes only scientific tasks. (109)

While Berry agrees that it is "certainly desirable---it probably is necessary--that the arts and sciences should cease to be 'two cultures' and become fully communicating, if not always fully cooperating, parts of one culture," he does not agree with Wilson's goal of Consilience:

I do not agree because I do not think it is possible. I do not think it is possible because, as he defines it, it would impose the scientific methodology of reductionism upon cultural properties ... that are inherently alien to it, and that are often expressly resistant to reduction of any kind. (94-5)

The primary difficulty, as Berry sees it, is that artistic works cannot be *explained* the way things like "experiments, ideas, patterns, cause-effect relationships and connections *within defined limits*" can be, without explaining them away, and that the arts are "indispensable precisely because they are so nearly antithetical to explanation" (113). Joseph Carroll's attempts at applying evolutionary explanations to literature in his *Literary Darwinism* have been criticized for the circularity of its neo-Darwinist arguments. Bruce Clarke argues that Carroll utilizes "emphatically linear argumentative constructions" in an attempt to escape this circularity, as in the following example:

The one crucial element missing from cognitive rhetoric is an ordered system of [psychological] domains; the necessary precondition for this system is a structured concept of human nature; and the source for this concept is the study of the adapted mind - that is, the study of the evolved structure of the human psyche. (Carroll 105)

Yet, Clarke maintains,

it remains as circular as ever: the precondition for an "ordered" psychic "system" is an "evolved" psychic "structure." Here the tautology is covered over by the nominal difference but virtual analytical conflation of the very real distinction between "structure" and "system," ... Carroll consistently mouths the rhetoric of biological systems theory without making any contact with of the particulars of that crucial line of discourse. (38)

Again it appears that an attempt to utilize the language and conceptual tools of science finds itself on shaky ground. Carroll ventures onto even shakier ground when attempting to formulate a basis for a naturalistic literary discourse based on "adaptationist" versus ecological thought:

Literature is produced by the psyche, not the ecosystem, and the psyche has been produced by natural selection. The direct causal force that creates complex cognitive structures is not an ecological principle of community, of sustainable growth, or of the stable interchange of energy within a biosphere. The direct causal force that creates complex adaptive features is natural selection... (Carroll 87)

The use of this extremely simplistic version of evolutionary theory echoes the similar misappropriation of ecology for which Dana Phillips takes ecocriticism to task. Phillips's comments on an earlier attempt at literary Darwinism by Joseph Meeker are *à propos*: "he tries to blend two terminologies and two enterprises that don't sort very well together" (151). Phillips also quotes a pertinent remark by the evolutionary biologist Stephen Jay Gould:

When socio-biology is injudicious and trades in speculative genetic arguments about specific human behaviours, it speaks nonsense. When it is judicious and implicates genetics only in setting the

capacity for broad spectra of culturally conditioned behaviours, then it is not very enlightening. (Phillips 151)

Finally, Carroll himself seems to admit a scientist bias himself in the concluding words of his review of *Consilience*:

"If we can formulate a theory and a methodology that link our deep evolutionary history, our evolved psychological structures, our cultural history, and the formal structures of literary texts, we shall have made a major contribution to the advancement of scientific knowledge." (Carroll 411)

It remains unclear just how articulating the biological foundations of the aesthetic imagination can provide additional critical tools for literary critics, and at worst, the effort to do so may severely misrepresent the science involved. As David Levine remarks:

But treating all the details of literature as understandable only or primarily in relation to models of a universal human nature is just not a very productive way of encountering texts that are always enmeshed in their historical moments. Carroll's criticism is normative and ahistorical, just the reverse of Darwin's own methods. (Levine 230)

The literary Darwinist project would appear to reduce artistic creation to a function of the human psyche and its "evolved epigenetic rules." This may of great interest to evolutionary science as a means of *explaining* human behaviour, but for literary critics, and ecocritics in particular, literature is a function of relationships, interconnections whose complexities may not be well serviced by such reductive explanations. As Laura Walls eloquently states:

Literature is the site where society plays out the "paradoxes and disjunctures," in Andrew McMurray's words, of its various

subsystems: science, economics, politics, religion ... literature cannot be reduced or abstracted without destroying the intricate interrelationships that make it literature--interrelationships between words, histories, writer, and reader, for starters ... It is a form of knowledge, a form that can subsist nowhere else but at the site where it is created. (Walls 202-3)

The above examples raise questions about just what it means to *be* interdisciplinary, or if, as Stanley Fish suggests, it is even possible—particularly between such seemingly unaligned pursuits as science and the humanities. Certainly, the use of scientific discoveries to gain new insights into literature will continue to be an exciting new area of research, however, these insights are more likely to satisfy scientific purposes. As Joe Moran points out, these types of interdisciplinary approaches are being spearheaded primarily by science, and less so by literary critics. He suggests that one reason for this, aside from a lack of scientific knowledge, is that they can be viewed as “intellectual imperialism” rather than true interdisciplinarity,

in that they attempt to understand the concerns of other disciplines solely from the perspective of their own. In fact, this kind of project could be seen as a scientific version of Leavis’ vision for English: the call for interdisciplinarity is presented as a project of intellectual synthesis, but is actually based on the vested interested interests of one discipline. (Moran 180-81)

Interdisciplinarity between two distinct branches of knowledge, that must stay true to both cannot, as Barthes claimed, “be accomplished by the simple confrontation of specialist branches of knowledge ...”

[it] is not the calm of an easy security; it begins effectively (as opposed to the mere expression of a pious wish) when solidarity of

the old disciplines breaks down. - perhaps even violently, via the jolts of fashion – in the interests of a new object and a new language ... being precisely the point from which it is possible to diagnose a certain mutation. (Barthes 155)

How then, as Gifford laments, are ecocritics to conduct their activities in ways that are faithful to scientific ecology, that can support environmental praxis, and be true to its primary subject matter? They are perhaps faced with an impossibly difficult task. It would seem that they must mutate, either by becoming fluent in the language and areas of knowledge within ecological science, by relying on expert mediators, or, following Love, Carroll, Boyd, and others, deferring to science in their attempts at developing science-informed literary criticism. If these “scientific ecocritics” are to have their way, it would seem then that the interdisciplinarity required to inform the “eco” of ecocriticism, if it is to be more than “the simple confrontation of specialist branches of knowledge,” must do more than merely share metaphors, but must involve, as Julie Thompson Klein suggests, “some kind of methodological synthesis” (Polvinen 21) or shared objects of study. Dana Phillips suggests that “the disciplines may have little, if anything, to say to one another” (Phillips 44), that “methodological synthesis” is supremely difficult, if not impossible, due to the fact that the humanities lack methods that are distinct from their theories: “Their theories *are* their methods” (132). Considering the perspective of the philosopher of science, Ian Hacking, Phillips suggests that what separates the humanities from the sciences is a lack of “methodological articulation” on the part of the humanities—articulation, “the way that a spider’s leg is articulated and fitted together at the joints” (132). For Hacking, science is an enterprise that involves both theory and method (knowing and doing), while the humanities rely on combination of theory and “doing things with words” (133); the humanities (and social sciences), he says, “only represent the world,” while

scientists “both represent the world and intervene in it” (132). Phillips summarizes:

What Hacking refers to as the “collaboration” of representation and intervention sets scientific theory and methodology apart from the perspectives, points of view, and bodies of traditional lore on which the humanities and social sciences are forced to rely. (133)

The ecologist R.H. Peters, suggests:

Science provides tools to help predict and control the world around us. If we ask science for something else, we can only be disappointed. Moreover if we seek something besides scientific tools, we are likely to fail on two counts, finding neither the tool we need ... nor the deeper understanding we seek (because science cannot provide it). (Peters 270)

Of course, when literary critics utilize science, they are not adopting scientific methodology, but merely the concepts and “words” scientists use to communicate the results of their “interventions.” When scientists communicate, with laypersons or each other, they use words; when they compare theories, or when they speculate on the social and policy implications of their work, they are doing metaphysics. E.O. Wilson argues, in fact, that science offers “the boldest metaphysics of the age” (Wilson n12), and that “[i]nterpretation is the logical channel of consilient explanation between science and the arts” (163). When Glen Love writes of the use of science he refers to the “social implications of biological thinking and research,” and risks inherent in “interpreting” biology (Love, “Consilience” 574, 568). In short, it would appear that when literary critics claim to be “consilient” or interdisciplinary, they are in deed just adopting a scientific “point of view” with which to approach literature. Within ecology itself, there is a history of scientists’ struggle to distance their discipline from its reputation as a

“point of view,” to become more like the harder sciences, and less involved with theoretical models that cannot be experimentally validated, or that are continuously being invalidated by other scientific disciplines.<sup>5</sup> In *The Philosophy of Ecology*, Keller and Golley describe ecology as being in a schizophrenic state, wanting to provide the kinds of grand generalizations the harder sciences are famous for, yet, due to the complexity and relative unpredictability of its subjects of study, constantly being faced with exceptions so that it is becoming more and more a “science of case studies”(10).

With their focus on interdisciplinarity, ecocritics are perhaps on the wrong track. Perhaps, contra E.O. Wilson, true interdisciplinarity is not possible, and, contra Love, not what is needed to satisfy the goals of ecocriticism. Perhaps, referring to interdisciplinarity as one of ecocriticism’s unique features is at best misleading, and even counterproductive. It may be that, rather than assuming the need to ground itself particularly in the science of ecology, ecocriticism should be striving for some form of “overarching synthesis” that conceptualizes ecology in much broader way than science is able to, while distancing itself from the popularized, often utopian versions of ecology criticized by Botkin and Phillips.

### ***Discordant Ecologies***

Dana Phillips argues that those who practice a form of ecological thinking, whether ecocriticism, ecophilosophy or some form of radical ecology (ecofeminism, deep ecology, social ecology), often rely on scientifically outdated and inaccurate tropes. “Ecology,” as Ursula Heise summarizes, has been used as a “countermodel against ‘normal’ analytic science,” one that assumed a “holistic

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<sup>5</sup> Dana Phillips has summarized the evolution and current issues within ecology in his chapter “Ecology Then and Now,” drawing on the work of Frank Golley, R.H. Peters, Robert McIntosh, Donald Worster, and others (42-82).

understanding of how natural systems work as vast interconnected webs that, if left to themselves, tend toward stability, harmony, and self-regulation" (Heise 509-10). The environmental historian, Donald Worster, writes that "Ecology ... seemed to be a science that dealt with harmony, a harmony found in nature, offering a model for a more organic, cooperative human community" (Worster 363). This simplistic understanding of ecology turned out to be far from accurate: "Historians thought ecology was the rock upon which they could build environmental history; it turned out to be a swamp" (White 1115). As ecologist Robert McIntosh has written:

It is unfortunate ... that the demand for theoretical ecological insights with which to support rhetorical ecology comes at a time when ecology is in a condition sometimes described as a paradigm change and or, perhaps better, paradigm confusion." (qtd. in Phillips 143)

Whether governed by pre-Enlightenment notions of divine order or organicism, or one of the various Romantic, transcendent or consciousness-heightening approaches to "nature," the belief in the existence of the pristine, the uncontaminated-by-human-touch, originary state of the world is powerful and difficult to shake, even, as Daniel Botkin has pointed out, by ecologists and environmental policy makers. In his oft-quoted 1990 *Discordant Harmonies: A New Ecology for the Twenty-First Century*, he argues that current ecological knowledge is "out of step" with current beliefs about nature (8), beliefs that are rooted in the eighteenth and nineteenth centuries, and which can be summed up in the "three images of nature—the machine, the creature, and the divine—[that] dominate our thoughts about the environment" (12). Each of these shares a set of accompanying notions, of constancy, stability, and balance. Although scientific understanding of ecological dynamics has greatly changed, it has done so only very recently, and for most of its young history ecology has presumed, in one way or another, "a very

strict concept of a highly structured, ordered, and regulated, steady-state ecological system" (9). Other critics from within science, such as Richard Lewontin and R.H. Peters have also emphasized that common ecological concepts such as harmony, balance, and undisturbed nature have proven to be mistaken, even imaginary constructions passing as ecological theories unsupported by scientific methodology. Even something as fundamental to environmentalism as "*the environment*," as evolutionary biologist Lewontin points out, "never existed": "there is nothing in our knowledge of the world to suggest there is any particular balance or harmony. The physical and biological worlds since the beginning of the earth have been in a constant state of flux and change" (92). As Botkin summarizes, the belief in an originary, undisturbed nature is predicated upon some very human existential needs:

As long as we could believe that nature undisturbed was constant, we were provided with a simple standard against which to judge our actions, a reflection from a windless pond in which our place was both apparent and fixed, providing us with a sense of continuity and permanence that was comforting. Abandoning these beliefs leaves us on an extreme existential position: we are like small boats without anchors in a sea of time; how we long for a safe harbor on a shore.  
(188–9)

Keller and Golley admit that the broader use of the term *ecology* has led to "confusion between connotations of scientific ecology proper and ecological-like thinking" (3). Science has ever spawned philosophical debate, which has, as Levin and Lewontin assert, "often been expressed in terms of dichotomous choices between opposing viewpoints about the structure of nature, [or] the explanation of natural processes," such as, "Is the natural world more or less at equilibrium or in constant change?" "Is the world causal or random?" or "Are abstractions

meaningful or obfuscatory?" They suggest that as long as these alternatives remain mutually exclusive, "the conflict remains one between mechanistic reductionism championing materialism and idealism representing holistic and sometimes dialectical concerns" (218). These debates are even more intense within ecology, due to its strained, yet undeniable attachment to holism. Keller and Golley admit that ecology connotes an "ecological worldview" that emphasizes interaction and connectedness, and that to define ecology as the study of everything, as

that inter-intra confrontation of biological, social and historical factors that embrace one's family, school, neighborhood, and the many overlapping communities that teach values, defenses, and offenses, the meaning of oneself and one's existence, (15)

is, from a scientific point of view, impractical to say the least. Thus while the idea of a truly integrative science attracts many to ecology,

ecologists ... have tended to subdivide nature into parts and to confine their study to those parts, applying Newtonian analysis to go deeper and deeper into the details of dynamic behavior and adaptation. Nevertheless, the alternative of synthesis is always present and generates an attraction for integrative work. The concomitant pull between analysis and synthesis is ever present in ecological inquiry. (15)

Keller and Golley suggest, however, that while some scientific ecology focuses mainly on the mechanistic aspects of the world, it can be informed by non-mechanistic points of view or "sources of meaning," in so much that it "finds its foundations not in logical thought but from patterns of nature observed through cultural filters," and that, as a result, "many ecologists have not been clear about the variety of tacit presuppositions on which research has been based"(16, 18). This notion has caused some ecologists to suggest that the term "ecology" be given

to the environmentalists, and each subdivision be referred to by its specific name, such as biogeochemistry, evolutionary ecology, etc. (3-4). If we are to have two ways of using the term, it would of course be impractical to begin referring to “ecology qua science” and “ecology qua worldview.” Rather, it behoves non-scientists and scientists alike to be aware of the multiple connotations of the term, and to ensure their usage is consistent with both scientific knowledge and non-scientific ecological concerns. The question remains, however: On what can an ecological worldview, or ecological thought be founded, if not ecology? And with what language, with what concepts can ecology be thought so that it becomes part of a broader, well-informed discourse? This may be to say that while it is important for ecocritics and others to think *about* ecology, it may be even more important to determine how to think *ecologically*.

Ecocriticism appears to be balanced between two (not necessarily antithetical) perspectives—ecological science and ecological thought—and unsure of how to ground its practice. Thinking ecologically is what environmentalists and ecocritics purport to do, of course, and in order to do this, they generally rely on either the writings of naturalists, interpreters of ecological science, or ecophilosophers. In any case, the ecological “facts” that are assumed to be foundational to ecological thought, are more often than not gleaned through the cultural filters of other writers, rather than directly from scientists themselves. And, more often than not, what environmentalists and ecocritics actually deal in, are what J. Baird Callicott refers to as, the metaphysical implications of ecology. Ecological thought as practiced by environmentalists and ecocritics, at some level at least, sets itself up in opposition to what it sees as the negative metaphysics of Enlightenment rationality and values, in that, “its methods and epistemology are not reductivist, its ontology is not dualistic, and its ethics are not atomistic” (Hayward 23).

As a child of the Enlightenment, modern classical science has been indispensable for comprehending the intricacies of the material world, and thus for thinking about the various relationships of humans in their natural environment. Tim Hayward, working from Callicott's essay "The Metaphysical Implications of Ecology," argues that science has tended to work with an "atomic materialist ontology" that implies that any body is "ontologically reducible to its simple constituents, and mechanistic, in the assumption that," quoting Callicott, "all causal relations are reducible to the motion or translation from point to point of simple bodies, or the composite bodies made up of them" (Hayward 29). This view of the world as composed of discrete entities (subjects and objects) causally related through mechanistic means has been and continues to be a stumbling block for ecocritics who want to ground their thought in science, but see the objectification of the natural world and science's mechanistic interventions as being the principle reason for modern environmental degradation. In response, some philosophers turn to more recent perspectives within biology and physics, such as that of the biophysicist, Harold Morowitz, that suggest an ontology of "events and field patterns," in which "each living thing is a dissipative structure, that is, it does not endure in and of itself but only as a result of the continual flow of energy in the system" (qtd. in Hayward 29). A physical phenomenon then, whether an organism or a particle, can be understood, as Hayward suggests, as "a momentary configuration, a local perturbation, in an energy field" (29). This level of interrelatedness has far-reaching ontological implications for ecological thought, and for ecological literary criticism, and these will be explored further in the following chapters.

### 3. Tropics of Ecological Discourse

The environment is first of all a word, an element in a discourse, and thus "populated," as Bakhtin has it, "with the intentions of others. (Mazel 35)

Both science and lyric poetry, compelled and confounded by the world as we experience it, make claims about invisible bodies that require some form of mediation—often an image or trope—to become intelligible. (Tiffany 291)

Where did we ever get the strange idea that nature—as opposed to culture—is ahistorical and timeless? We are far too impressed by our own cleverness and self-consciousness. . . . We need to stop telling ourselves the same old anthropocentric bedtime stories. (Shaviro 39)

#### ***Introduction (why matter matters)***

In an essay subtitled "How Matter Comes to Matter," Karen Barad, suggesting that language has been given too much power, asks

[w]hat compels the belief that we have a direct access to cultural representations and their content that we lack toward the things represented? How did language come to be more trustworthy than matter? Why are language and culture granted their own agency and historicity while matter is figured as passive and immutable, or at best inherits a potential for change derivatively from language and culture? How does one even go about inquiring after the material conditions that have led us to such a brute reversal of naturalist beliefs when materiality itself is always already figured within a linguistic domain as its condition of possibility? (801)

In this chapter I follow several thinkers who, like Barad, go about inquiring after these material conditions as a way of informing a discursive practice that, unlike our common use of language, does not seek to merely represent those conditions, but to enter into discourse with them. A discourse that manages to incorporate the

material into its practice may be said to be ecological in so much as it refuses to merely represent the world, to contribute further to the modern divide between mind and matter, human and non-human, flesh and stone that prevents ecological thought and environmental practices from moving beyond reified notions of 'nature' or 'the environment'.

In a project such as this it is important to remember, as Hayden White writes, that "discourse itself must establish the adequacy of the language used in analyzing the field to the objects that appear to occupy it" (*Tropics* 1). White also maintains that the basis for the construction of a discourse is "tropological" in that the relations "between the figurative and the literalist dimensions of discourse" are established through a process of "tropics" by which, furthermore, "all discourse *constitutes* the objects which it pretends only to describe realistically and to analyze objectively" (*Tropics* 2; "the Figurative" 17).

I propose to explore some of the tropical terrains of popular ecological discourse and contrast them with the contributions of some current, if less explicitly ecological thinkers. Borrowing from Donna Haraway's description of nature as, "a topos, a place, in the sense of a rhetorician's place or topic for consideration of common themes, as in part of the commons," I wish to consider how the topic of ecology is also a "tropos" . . .

a trope. It is figure, construction, artifact, movement, displacement ... Faithful to the Greek, as tro'pos nature is about turning. Troping, we turn to nature as if to the earth, to the primal stuff--geotropic, physiotropic. Topically, we travel toward the earth, a commonplace. In discoursing on nature, we turn from Plato and his heliotropic son's blinding star to see something else, another kind of figure. (Haraway 296)

In the spirit of this passage I will, in what follows, consider “ecology” as *tropos*, as a turning from thought that relies on transcendent universals and is focused on being, towards a style of thought and discourse that follows material particularities and the restless becomings of the world. I follow some recent philosopher-theorists who are exploring new ontological territories for ecological thought with alternate language and concepts in conversations regarding the “geotropic, physiotropic,” that lead thought on a course from abstract geometries of division and exclusion to geographies of inhabitation; a course in which geography is “no less mental and corporeal than physical in movement” (Deleuze and Parnet 38). I will be arguing for an approach to ecological thought and discourse, and thus to ecocriticism, that takes as its subject the myriad interrelated processes and events that constitute the *things* of the world, and how we are entangled in that constitution. Simply put, I suggest that some of the key language traditionally used in ecological or environmental discourse is at the very least contradictory, that certain language an tropes, when interrogated *eco-tropically*, fail the tests of radical interrelatedness and processual flux that may be considered as foundational to ecological thought.

### ***Thinking Ecologically***

[Ecocritical] discourse has yet to develop tropes enabling it to come to terms with the fractured (and fractal) realities of nature. (Phillips 20)

Both the scientist and the artist rely on language, narrative strategies, characterization and the use of tropes to communicate their findings. As Phillips, Botkin, Golley, and others have shown, both literary critics (with their focus on “nature writing”) and ecologists have been guilty of relying on simplistic notions regarding the interrelatedness of the components of life, and the resulting misrepresentations. Scientists have been encouraged to accept and work with the

fact that their concepts have (at least) three dimensions: “ a core definition, a modeling strategy to apply the concept to real or simulated situations, and a set of metaphorical implications that are used in informal, creative, and cross-disciplinary communication” (Pickett et al 14). They are painfully aware that, while the metaphorical dimension of scientific concepts are needed to be able to inject their work into public discourse, “it also introduces the problem of “unpacking” the baggage of often contradictory assumptions and values that are a necessary part of social and political discourse” (Pickett and Cadenasso 8). The question remains, however, regarding whose role it is to determine how best to present ecological thought to the non-science world. Who chooses the language, narrative strategies and tropes? It may be relatively easy to supply language that will help scientists communicate with others in their own field, and it is this language that is picked up and mixed in with public discourse about science; however, it is likely that only the scientists directly involved will have shared meanings attached to that language.

It has been suggested that with current scientific paradigms there is one concept, one metaphor that might be particularly suited for informing “societal dialogue about the structure and function of the material world as ecology understands it;” that the term “flux of nature” could be charged with emphasizing “the dynamism, uncertainty, and contingency of ecological interactions and structures” (Pickett et al 183). Of course, referring to the “flux of nature,” may be simply saying that change is continually happening—that nothing is static. This is not a new concept, and is at least as old as Herakleitos’ claim that everything flows, or, more recently, Whitehead’s formulation in his 1929 book *Process and Reality* of nature as a process of “dynamic reciprocity”:

In the inescapable flux, there is something that abides; in the overwhelming permanence, there is an element that escapes into flux.

Permanence can be snatched only out of flux; and the passing moment can find its adequate intensity only by submission to permanence. (338)

This is in fact the starting premise of theorists such as physicist David Bohm, philosophers Gilles Deleuze and Felix Guattari, anthropologist Tim Ingold, and others—that Nature *is* flux: “*what is* is the process of becoming itself, while all objects, events, entities, conditions, structures, etc., are forms that can be abstracted from this process” (Bohm 48). Or, in the language of Deleuze and Guattari:

... there is pure plane of immanence, univocality, composition, upon which everything is given, upon which unformed elements and materials dance that are distinguished from one another only by their speed and that enter into this or that individuated assemblage depending on their connections, their relations of movement.”

(*Plateaus* 255)

It is this broadening of our understanding of the dynamic and contingent nature of life that helps, at a more fundamental level, to provide further definition to the general ecological principle of “connectedness,” or, “interrelatedness,” particularly as it is understood in its more radical, or, as Neil Evernden describes, “subversive” sense:

The really subversive element in Ecology rests not on any of its more sophisticated concepts, but upon its basic premise: inter-relatedness. But the genuinely radical nature of that proposition is not generally perceived, even, I think, by ecologists. To the western mind, inter related implies a causal connectedness. Things are inter related if a change in one affects the other ... But what is actually involved is a genuine intermingling of parts of the ecosystem. There are no discrete entities. (Evernden 16)

Interrelatedness and flux (“discordant harmonies”) point to an understanding of ecology that reflects both current scientific theory, and recent ontological speculations that emphasize the materiality of life.

### **onto-ecology**

Ecology has been summarized succinctly as “the wisdom of being at home in the world” (Alexander np). This definition is of course in accordance with the root, *ecos*, but the phrase is also pregnant with additional significations through the joining of the words, ‘wisdom’, ‘being’, ‘home’ and ‘world’. It provokes ontological questions regarding the various possible relationships among these concepts. The question of the relationship between ecology and human affairs, may also be understood as a question of what Wendell Berry calls “propriety,” or of understanding what *fits* (Berry, *Miracle* 13). More than, but including, knowledge of physico-biological systems and how to know when they are endangered, it is an ontological question: How do *we* fit in with everything else? William Rueckert, in “Metaphor and Reality,” also suggests that how we “fit in” is ultimately an ontological question. Borrowing from Lewis Thomas he writes:

If we are ever going to be truly fit to fit into the evolutionary scheme of things, Thomas says, we must take our special species gift, which is our great capacity to “learn” and put it to constructive planetary use. Learning and creating are what we do best, he says, because of our capacity for language and other symbol systems. Nobody is going to argue too much with this statement. But then Thomas lays two terrible burdens on us. We are, he says, whether we like it or not, “the planet’s awareness of itself”; and “if we are to become an evolutionary success, fit to fit in,” it is up to us “to become the consciousness of the whole earth” ... [and] if we are to become the

consciousness of the whole earth then we better tend to our  
metaphors ... (np)

“To become the consciousness of the whole earth” may be a rather tall order; but another way of conceiving of this relationship, this awareness, that is perhaps more *à propos*, is to think of paying the earth, what poet Jan Zwicky in *The Wisdom of Metaphor* calls, “ontological attention,” by which she means “responding to the particularity of things” (52). For it is our desire for a uniform world of nature—Botkin’s “safe harbour”—that has left environmentalism in the midst of what Bruno Latour characterizes as the “ruins of nature” (“Rules”), signifying the loss of a singular nature with the dawning realization that there are as many “natures” as there are things—each thing exacting its own contingencies upon the world, impacting the flux of the world as if through its own perspective—Latour’s “parliament of things.”

If ecocritics are to live up to their dual allegiance to the word, and the world, they need to continue to re-examine how ecological thought can be true to both the “particularity of things,” and the particularities of the language, tropes, poetics used in literary art. In other words they need to be part of an ecological discourse that interrogates the articulations between the world of things and the world of language, and which does not simply posit a return to the mimetic realism so highly regarded by mainstream ecocriticism. Such an ecological discourse would partly define itself in opposition to an environmentalism that tends to be implicated with a human centered, instrumental, managerial, problem-solving consciousness of a very modern kind. Neil Evernden considers that “by basing all arguments on enlightened self-interest the environmentalists have ensured their own failure whenever self-interest can be perceived as lying elsewhere” (10). Evernden concludes that “environmentalism, in the deepest sense, is *not* about environment. It is not about things but relationships, not about beings

but Being, not about world but the inseparability of self and circumstance" (Evernden 142). And, while Barry Commoner's first law of ecology from his 1971 *The Closing Circle* — "[e]verything is connected to everything else" (qtd. in Glotfelty xix)—has been a rallying cry and a touchstone for environmentalists and ecocritics, it has not always been taken to its logical extreme to include, *everything*—Robert Frost's "whole Goddamn machinery."<sup>6</sup> This prompts one writer to muse:

When people say that we should not separate ourselves off from the natural world, that we and it and the whole are all connected, and that what we are doing is impacting on nature so badly because we are part of nature but we are forgetting that we are, I don't think that they mean that TV is nature, but that is only because they, with the aid of many social institutions and much ecological *trompe l'oeil*, have made quite an effort to forget this and as a result they are not thinking anywhere near as holistically as nature actually is. TV is more like the hurricane or killer whale or polar bear than it is like the images it shows of these things. In the world of culture, TV is a force of nature. (MacLeay np)

If ecology *qua* science cannot be the study of *everything*, we are still left with the conundrum of what to do with the term "nature" (which some have declared should not be included in the same sentence with "ecology"<sup>7</sup>), and how to use "ecology" in addressing the fact of the interrelatedness of everything. We need ways of thinking about "the whole Goddamn machinery" that include science—with its self-imposed, functional limitations—but that are also able to take into consideration relationships of every kind, whether thermodynamic, emotional, political, poetic, and so on. The first step in developing such a discourse is to

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<sup>6</sup> From Frost's "Lucretius versus the Lake Poets" (1947).

<sup>7</sup> e.g. Timothy Morton's *Ecology Without Nature*.

examine the language and tropes currently at work. In the section that follows I consider some tropical elements in current environmentalist and ecocritical discourse, and suggest that the geometries of its terms—involving circles and lines—make it difficult to avoid escaping the dualistic, essentialist, hegemonic thought that it opposes.

### ***Eco-Tropology***

[T]he tropical element . . . is the shadow from which all realistic discourse tries to flee. This flight, however, is futile; for tropics is the process by which all discourse *constitutes* the objects which it pretends only to describe realistically and to analyze objectively . . . troping is the soul of discourse, therefore, the mechanism without which discourse cannot do its work or achieve its end. (Hayden White, *Tropics 2*)

The geometry of the circle has been a key trope involved in the underlying assumptions of ecological science and environmental discourse, both as figuration for a holistic perspective, and for de-centring the human view of its place in the world. However, such centrist thought—both in terms of the desire for an ecological holism and eco-philosophy's prescriptions for anthropocentrism—fails in this regard, particularly with the issue of subject-object, dualistic thought and questions of agency, and in the end is too limiting for the purposes of dismantling the structures of anthropocentric thought and developing a redefinition of agency in terms of radical ecological interrelatedness.

### **circles**

Ecosystems are process, and ecology is less an objective, scientific discipline than a mode--an art--of thinking differently, in relation to subjective assemblages, to constitutive existential territories rather than a clear-cut way of dividing between a subject and an object, or of assigning limits and boundaries. (Conley 103)

*The white man drew a small circle in the sand and told the red man, "This is what the Indian knows," and drawing a big circle around the small one, "This is what the*

*white man knows." The Indian took the stick and swept an immense ring around both circles: "This is where the white man and the red man know nothing."*  
(Carl Sandburg, "The People, Yes")

### **Thinking Like a Circle**

Anthony Weston has observed that in environmental philosophy, which is more often or not concerned with ethics, issues are usually framed geometrically: "We are invited to ask how big the circle of moral consideration can or should get and where to draw the line between what counts and what doesn't" (Weston 25). It is generally assumed that in order to be more ecological we need to expand our circle of concern to include the "more-than-human" world. But this expanding circle, this "Singerian moral extensionism," as Weston calls it (28), can obscure the fact that there is still someone describing the circle, deciding where and when to extend it, and what and who to include, or not. "The Circle of Life" provides a comforting catchphrase for life in a Disney movie, but we need to examine just how useful circles are as ecotopes, and how limiting or obfuscatory their geometry is for ecocritical discourse.

The circle has of course been used emblematically throughout human history to either circumscribe/identify an area or grouping, or to represent holistic ideas. Both of these usages come into play in the development of ecological science. The term *holism*, popularly understood according to Aristotle's famous principle-- "the whole is greater than the sum of its parts"-- was introduced by Jan Smuts in his 1926 book, *Holism and Evolution*. Smuts defined holism as "*The tendency in nature to form wholes that are greater than the sum of the parts through creative evolution*" (qtd. in Sharma 18). A foundational concept for ecology it was seen by the proponents of ecology as a necessary corrective to extreme scientific reductionism. Ernst Haeckel, the German biologist who coined the term *Oekologie* in 1866, was dismayed by the atomistic approach to biological knowledge that 17c

science had promoted, which was reduced to studying the physiology of organisms, while ignoring the extra-organismal context of life:

By ecology we mean the body of knowledge concerning the economy of nature—the investigation of the total relations of the animal both to its inorganic and its organic environment; including, above all, its friendly and inimical relations with those animals and plants with which it comes directly or indirectly into contact (qtd. in Esbjorn-Hargens 270-1)

He believed in the importance of studying organisms in their environment, rather than just in laboratories. However, as McIntosh notes, he “provided a name but little substance” for ecology (23). Keller and Golley note that there “is a popular saying that ecology has few, if any, principles, but many concepts”(101), and, certainly, its beginnings were largely conceptual, with key concepts derived from both philosophical and religious thought, which were not contradicted by ecology’s observations in the field. As Daniel Botkin explains:

The belief in divine order carried with it a long history and therefore a kind of mental—intellectual and emotional—momentum. The powerful observations and theories of nineteenth-century science, which revealed amazing order in nature and suitability of the environment for life in realms never before known—the universal chemistry and physics of water, the size of and distance of our planet from the sun—were impelled by and, in turn, reinforced this momentum. (Botkin 88)

Ecology’s philosophical baggage (which, according to Botkin, helped it to remain a “nineteenth-century science’ until very recently), and its heavy reliance on field observation left it in a shaky position among the other sciences (Botkin 110). It was given a boost, however, with the development of ecosystem ecology during

the last half of the twentieth-century. One of the most influential ecologists of this period, Eugene P. Odum, described ecosystem ecology as "the formalized approach to holism"(qtd. in Phillips 65). By utilizing this concept, ecologists were able to define a subject of study that was greater than a single organism or group of organisms and apply quantitative, analytical methodologies, putting it on the road at least towards "proper scientific methods" (McIntosh 245). However, ecosystem ecology has been fraught with difficulties, perhaps owing to the fact that ecosystems have, as Paul Colinvaux states, "bewilderingly large numbers of moving parts" (qtd. in Phillips 66), so that, Dana Phillips concludes, ecologists "have to concede that summing all the parts of an ecosystem, even if it were possible to identify and count them all, doesn't necessarily tell one something meaningful about the whole" (69). Furthermore, as R. H. Peters argues in *A Critique for Ecology*, the vagueness of ecological concepts presents ecologists with numerous "operational difficulties":

...the environment is currently identified by stipulating what it is not: The environment is that which is not the object of investigation. Thus the environment of an entity is everything outside that entity ... Any argument which requires specification of community or environment is also likely to be non-operational. Both habitat and ecosystem, as multidimensional, unlimited, relativistic entities representing the environment are open to similar criticisms. (89, 91)

The various efforts of ecologists to circumscribe definable objects, in order to apply scientific methods of study and experimentation, while necessary, are constantly at odds with their epistemological efforts to understand the objects of study from a holistic perspective, whether that of a niche, ecosystem, biome, the biosphere, or earth/Gaia itself. As Jimmie Killingsworth suggests, concepts such as "the

environment" create ontological dualisms, extracting observers from their ecological reality, resulting in virtually autonomous, abstracted subjects:

Division, implied in the very word environment, signifying that which surrounds, found its way into literary theory and practice as well as science. We see it in Ruskin's concept of the pathetic fallacy — which cautions poets to avoid the age-old practice of seeing their emotions mirrored in nature, in the weeping of the willow and the sagging of the moon in the night sky — and we see it again in literary naturalism's portrayal of nature as a force indifferent to human suffering. Finally, it appears in the work of recent nature writers such as Edward Abbey, who reject personification as a sentimentalist relic that interferes with the Zen-like contemplation of the earth as the wholly other. (Killingsworth 49)

David Mazel points out that we moderns have lost the "active voice" of the word "environment," that we no longer hear it the way we do such words as judgement and government: "words that still resonate with the senses of the judges who judge and the governors who govern, and that immediately recall the legal and political structures that empower those judges and governors" (Mazel 35). Mazel claims that the objectification of the environment, our sense of environment, not as action, but as thing, is intimately connected with how it is spoken of: "... thanks to the nominalizing process that effaces both act and actor, we no longer speak of what environs us, but what our environment is" (Mazel 36). He further suggests that it is critically important to understand this distinction. For, understanding that which we call environment, not as "fact that has been discovered," but as that process which environs us, can prompt questions about "not only what environs us but how it came to do so, in whose interests, and by what means of agency" (36).

As a circle implies an inside and an outside, it also implies a centre, a perspective, a point of view from which everything else in the circle is ordered and given definition. Objects within a circumscribed assemblage are given definition through the point of view of the subjects that assemble, observe, or utilize them, or that which is utilized by, or considered as separate from subjects tend to be objectified—thus Saussure's "the point of view creates the object, the subject providing the necessary point of view (qtd. in Vivieros de Castro 467). Subject-object, dualistic thought, and the hegemonic structures that often accompany it, is categorized by postmodernist critics and eco-theorists as one of the more deleterious aspects of the Cartesian separation of mind and body as it has evolved through the post-enlightenment era, largely defined as it has been by the progress of scientism. The ramifications of Cartesian dualism have been shown by many philosophers and critics to have been bound up with questions regarding our relationships to our bodies, various exploitations based on gender and race, and exploitations of the rest of nature; as the philosopher Jane Bennett summarizes,

[t]he philosophical project of naming where subjectivity begins and ends is too often bound up with fantasies of a human uniqueness in the eyes of God, of escape from materiality, or of master of nature; and even where it is not, it remains an aporetic or quixotic endeavor.

(Bennett ix)

Anthropocentric thought which centres definitions of agency in purely human sphere has been countered by a number of approaches that seek to, if not dismantle the barriers between subjects and objects, then at least mitigate the effects of hegemonic centrist structures by countering measures that attempt to up-end the anthropocentric universe. Deep Ecologists have offered an ecocentric "creed" which claims to place all of nature on an even plane with humanity. But while ecocentrism has been offered, theoretically, as a radical challenge to long-

standing and deeply rooted anthropocentric attitudes in Western culture, science, and politics, in practice it still requires the presence of a human subject who either, in the deep ecological sense, strives to diminish his or her ego-centric perspective in order to gain a heightened sense of unity with the rest of nature, or else it refers to an abstract notion of total inclusivity, of the whole earth as centre, in essence, conflating circle and centre. In practice, the geometry of the “expanding circle” still stems from a central point of view, and, as such, is what Anthony Weston calls “concentric,” like the ripples from a stone dropped in a pond: “Each new circle of moral consideration is supposed to enclose the previous circles neatly, evenly, and totally, all the way back to the single original center” (Weston 90). Even if ecocentrism is posited as including the whole earth, Weston suggests that views such as this are “*too big* for centers,” asking “how we can ‘center’ on the Earth as such,” and considers that “this is more like a-centrism than any actual centrism whatsoever” (99). Weston offers a “multicentric” alternative:

Drop a single pebble in a pond and you create a concentric set of ripples. Toss in a handful of pebbles and ripples set off from a dozen points at once, each its own “center,” each soon intersecting and intermingling with others without losing its distinctness, its own place of origin and its own way of “making waves.” A decentered world is not (need not be) an a-centered world. Instead we envision a many-centered world, a diversity of centers, a world of thick and polynodal texture. Each of a thousand human and more-than-human presences organizes a certain part of the world around itself, forms a distinctive local pattern, a certain organic completeness and cohesion. (93)

Even if this alternate geometry precludes the positing of a single originary perspective, it is not clear how it would prevent any of these centered presences

from assuming a subject versus object stance with respect to its neighbours, or avoid the hegemony of larger versus smaller circles of influence. Moreover, the image Weston uses to describe multicentricity suggests not interrelatedness, but independent subjects of transcendent origin flung into being, the perspectives and agency of others grudgingly accommodated.

Like Weston, Val Plumwood also wants to dismantle the anthropocentric perspective, though she avoids using centrist terminology due to the common risk of hegemony that can accompany such points of view. She would prefer to crack open circles, as it were, and focus on establishing forms of mutuality that are based upon a “post-Cartesian,” broader recognition of “mind-like qualities” (*Environmental* 176-77) that can assist with acknowledging the intentionality of “earth others” as subjects-in-themselves, rather than merely objects :

The ‘object’ is an intentional nullity, never itself a reciprocal knower or active in disclosing knowledge, never itself the subject of a narrative we can hear. In the subject/object division the ‘object’ is treated as passive, the one acted upon, and the knower is the active party who forces knowledge from the reluctant or mute object. This passification of the objectified is a prelude to their instrumentalisation; since as a vacuum of agency, will and purpose, they are empty vessels to be filled with another’s purpose and will. As a corollary to this passification, the subject/object division backgrounds or denies the agency of the one studied and any limits respect for this might impose on the knower. (45-46)

Plumwood’s project might be characterized as replacing the geometry of concentric, dualistic and hegemonic structures with a more geographical conceptualization of life on earth as a “field of agency” (“Concept” 117). However, the mere positing of a “field of agency” does not necessarily defend against the

formation of hegemonic relations between agents. Just because one avoids the use of centrist terminology does not alter the fact that each “other” represents a single point of view, one that does not necessarily recognize its relatedness to others in the field. The relationships between these points and between them and the field in which they are situated are more often than not figured through connecting lines. When circles are cracked open, they are replaced by lines – of force, of communication, of designation.

## lines

The closed boundary of a circle or sphere is always present when we insist on conceiving of entities or compositions (e.g. environments) as discrete, autonomous points of reference. Circles imply integrity of form and composition, an ontological purity that is reflected in the division between Nature and Culture, organic and inorganic, or between human and non-human (the latter division easily dismantled, for example, by the fact that the number of bacterial cells outnumber other cells in the human body by a factor of 10)<sup>8</sup>. But what if we view the circle not as a geometric form, but as part of a gesture, a line of movement that encircles then moves on. The anthropologist Tim Ingold has unique perspective on such lines and on lines in general, having conducted what he calls a “comparative anthropology of the line” in his book *Lines: A Brief History*. Observing that the straight line has become an “icon of modernity,” an “index of the triumph of rational, purposeful design over the vicissitudes of the natural world” (152), he traces, among other things, the history of how the “line of culture” became straight, deconstructing linearity itself, leading to a way of ecological thinking that

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<sup>8</sup> As reported by evolutionary biologist Olivia Judson at <http://opinionator.blogs.nytimes.com/2009/07/21/microbes-r-us/>

is a “study of the life of lines” (103). While the idea of straight lines has been with us as long as geometrical thought, he questions why straightness, and the shortest path between two points, have become to “epitomize not only rational thought and disputation, but also values of civility and moral rectitude” (*Lines* 4).

A line may often be used as a boundary that circumscribes a country, an ecosystem, or a garden, but more often a line is thought of as being straight. The shortest distance between two points, a line of reasoning, a line of poetry, a line of communication, electric and telephone lines, a subway line, the line (or chain) of command, in the line of duty—linearity is often associated with civilization, as a symbol and tool for progress. A circle, as drawn by hand, is more of a gesture than the creation of a perfect geometrical form—more a trajectory than the perimeter of a figure. And while one can identify where the drawing of the circle begins and ends, it is, in actual fact, impossible to identify the point at which the gesture that resulted in the drawing begins or ends. This line is a part of the topology of life, while the perfect form of the circle is an abstraction that, while useful for the purposes of analytic thought, is entirely reductive when it helps to structure thought that defines life in terms of boundaries and containers. This inflicting of the geometry of abstraction onto the topology of life is the result of what Ingold sees as a “particular logic that has a central place in the structure of modern thought,” that he calls the “logic of inversion” (“*Bindings*” 1796). As he argues: “Life, according to this logic, is reduced to an internal property of things that *occupy* the world but do not properly *inhabit* it” (1797). In a sense, these abstract forms occupy the geography of life in the way colonizing powers have occupied other inhabited lands by superimposing a network of connections designed to facilitate the occupation. The lines of occupation, as Ingold describes,

... are typically straight and regular, and intersect only at nodal points of power. Drawn cross-country, they are inclined to ride roughshod

over the lines of habitation that are woven into it, ... cutting the occupied surface into territorial blocks ... built to restrict movement rather than to facilitate it, [they] can seriously disrupt the lives of inhabitants whose trails they happen to cross. They are lines, as the novelist Georges Perec has observed, 'for which millions of people have died.' (*Lines* 81)

The lines of inhabitation—"generative movements of life"—are like the freehand circle, gestures; each line a "trail of movement or growth" ("Bindings" 1805).

Ingold continues:

Every trail discloses a relation. But the relation is not *between* one thing and another—between the organism 'here' and the environment 'there'. It is, rather, a trail *along* which life is lived ... Neither beginning here and ending there nor vice versa, the trail winds through, or *amidst*, without beginning or end ... The trail, in short, is a 'line of becoming' ... Becoming is not a connection between this and that but follows a 'line of flight' that pulls away from both. (1805)

A line/path of inhabitation is understood here as an *alongness* –movement that occurs in a directional manner. The "path" and not the "place" is the "primary condition of being, or rather of becoming: places "do not so much exist as *occur*" (1808). Ingold argues that a "line of becoming" is an open-ended impulse, or "improvisation" ("Bringing" 10). Ingold is indebted here to Deleuze and Guattari who in *A Thousand Plateaus* propose that a line of becoming

is not defined by points that it connects, or by points that compose it; on the contrary, it passes *between* points, it comes up through the middle, it runs perpendicular to the points first perceived, transversally to the localizable relation to distant or contiguous points. A point is always a point of origin. But a line of becoming has neither beginning

nor end, departure nor arrival, origin nor destination ... A line of becoming has only a middle ... neither one nor two, nor the relation of the two; it is the in-between, the border or line of flight or descent running perpendicular to both. (293)

Thus, lines considered as such are lines of process rather than of circumscription, division *or* connectedness. This understanding of process or flux as lines of becoming is also central to Ingold's differentiation between "objects" and "things," which furthers his distinctions between that which is "inhabited" and that which is "occupied"—important tropical distinctions for an ecological discourse that is rooted in interrelatedness and process.

"To create a thing," Tim Ingold writes, summarizing Aristotle, "you have to bring together form (*morphe*) and matter (*hyle*). Ingold's ontological project is to "overthrow" this hylomorphic model of creation that privileges agents and their final products over the material. "Matter," as viewed from within this model, which has been, and still is pervasive, "rendered passive and inert—was that which was imposed upon" ("Bringing" 2). Ingold argues that to distinguish between things and objects is to distinguish between a world and places that are inhabited, rather than merely occupied. He regards things—drawing from Heidegger's essay on "The Thing," and on the ancient meaning of *ding*, as a place of gathering—as "knots" formed of lines of becoming, rather than self-contained, bounded objects. Using the example of a tree, he asks where the tree ends and the rest of the world begins:

Is the bark, for example, part of the tree? If I break off a piece in my hand and observe it closely, I will doubtless find that it is inhabited by a great many tiny creatures that have burrowed beneath it and made their homes there. Are they part of the tree? And what of the algae that grow on the outer surfaces of the trunk or the lichens that hang from

the branches? Moreover, if we have decided that bark-boring insects belong as much to the tree as does the bark itself, then there seems no particular reason to exclude its other inhabitants, including the bird that builds its nest there or the squirrel for whom it offers a labyrinth of ladders and springboards. If we consider, too, that the character of this particular tree lies just as much in the way it responds to the currents of wind, in the swaying of its branches and the rustling of its leaves, then we might wonder whether the tree can be anything other than a tree-in-the-air. (“Bringing” 4)

Each of the tree’s attributes (root, bark, branch and leaf) exists in concert with other things (insects, lichen, birds, wind), whose attributes each exist in concert with more things—all threads of being that, as Ingold argues, “far from being contained within [each thing], trail beyond, only to become caught with other threads in other knots” (4). Surfaces, thus, which only *seem* to separate things from their surroundings, their environment, are temporary, porous formations through which threads of becoming converge—as Ingold states, “things *leak*,” and “boundaries are sustained only thanks to the flow of materials across them” (4, 12).

Ingold also refers to the thing as a “parliament of lines” (*Lines* 5), a “gathering together of the threads of life” (“Bringing” 10) and to a place that is inhabited, like a house which is made up of the comings and goings of the materials, people, creatures during its lifetime, and which in turn inhabits a place and whose existence is the result of the flow of materials, people, etc., and which “does not contain life but is rather formed of the very lines along which life is lived” (*Lines* 100). They are not objects but, in a sense, as Ingold suggests, “topics”:

Lying at the confluence of actions and responses, every topic is identified by its relations to the things that paved the way for it, that presently concur with it and that follow it into the world. (*Lines* 90)

In short, “things” are historical, part of the “texture of the world,” or our “environment,” —now, no longer objectified, no longer singular, enclosed entities, but “tangle[s] of lines,” like Darwin’s famous “entangled bank”:

Observe how the fibrous bundles comprising every plant and bush are entwined with one another so as to form a dense matt of vegetation. What we have been used to calling ‘the environment’ reappears on the bank as an immense tangle of lines. Precisely such a view was advanced by the Swedish geographer Torsten Hägerstrand, who imagined every constituent of the environment —humans, animals, plants, stones, buildings — as having a continuous trajectory of becoming. As they move through time and encounter one another, the trajectories of diverse constituents are bundled together in diverse combinations. ‘Seen from within’, wrote Hägerstrand, ‘one could think of the tips of trajectories as sometimes being pushed forward by forces behind and sometimes having eyes looking around and arms reaching out, at every moment asking “what shall I do next”?’ The entwining of these ever-extending trajectories, in Hägerstrand’s terms, comprises the texture of the world — the ‘big tapestry of Nature which history is weaving’ (Hägerstrand 1976: 332). Like Darwin’s entangled bank, Hägerstrand’s tapestry is a field not of interconnected points but of interwoven lines, not a network but what I shall call a *meshwork*.  
(Things 11-12)

While the “web of nature” is perhaps the most common trope used to describe ecological interrelatedness, more often than not, this web is visualized as a network of creatures and environmental factors connected by lines representing various relationships, for example, in nutrient cycling— who eats who, or what. The term “web” itself is nowadays also associated with the idea of a network—like

the internet—or an organizational chart that represents an array of relationships conceptualized as lines-as-connectors joining the dots, which is why Ingold suggests that the term “meshwork” is more appropriate. He borrows the term from Henri Lefebvre, who speaks of “the reticular patterns life by animals, both wild and domestic, and by people (in and around the houses of village or small town, as in the town’s immediate environs),” together making up the “texture” of the world (qtd. in *Lines* 80). The distinction between the lines of connection of a network, and the “lines of flow of the meshwork” is critical, Ingold suggests, for a view of things and places that accords with a living, inhabited world:

An ecology of life, therefore, must be about the weaving and binding of lines, not the hammering of blocks. As an ecology of threads and traces, it must deal not with the relations *between* organisms and their external environments but with the relations *along* their severally enmeshed ways of life. Ecology, in short, *is the study of the life of lines.* (“Bindings” 1807)

In a sense, Gilles Deleuze and Felix Guattari also conduct a study of the life of lines—lines of becoming, lines of flight, lines of flow—but they describe them as being rhizomorphic.

The rhizome is an oppositional alternative to what Deleuze and Guattari call “arborescent” or “arboreal” ways of thinking, acting, and being, which have long defined Western epistemologies. Arborescent forms are structures with branches that continue to subdivide into smaller and lesser structures. In their various social and cultural instantiations, arborescent models of thinking, acting, and being amount to restrictive economies of dominance and oppression, “hierarchical systems which comprise centers of significance and subjectification” (16)—thought that results in dualisms, fragmentation and power structures based on single lines

of thought/power, versus thought that deals in multiplicities. Like the root system that it refers to, to be “rhizomorphous,”

is to produce stems and filaments that seem to be roots, or better yet connect with them by penetrating the trunk, but put them to strange new uses. We're tired of trees. We should stop believing in trees, roots, and radicles. They've made us suffer too much. All of arborescent culture is founded on them, from biology to linguistics.

(15)

Rhizomes are networks. Rhizomes cut across borders. Rhizomes build links between preexisting gaps and between nodes that are separated by categories and orders of segmented thinking, acting, and being. Rhizomatic thought further levels the field of agency through a sustained adherence to principles of multiplicity and heterogeneity:

The rhizome operates by variation, expansion, conquest, capture, offshoots ... In contrast to centered (even polycentric) systems with hierarchical modes of communication and preestablished paths, the rhizome is an acentered, nonhierarchical, nonsignifying system without a General and without an organizing memory or central automaton, defined solely by a circulation of states. (21)

This way of describing “flux” —the “circulation of states” —is central to both Ingold, and Deleuze and Guattari; the latter also referring to it as “this matter-movement, this matter-energy, this matter-flow” (407), whose dynamism and creative forces are elaborated in their machinic ontology, and which is the subject of the next chapter.

I suggested at the beginning of this chapter, along with Anthony Weston, that the tropic character of ecological discourse tends to be geometrical in nature— informed by circles and straight lines it complicates rather than addresses

subject/object dualistic thought and associated issues surrounding the objectification of non-human life, and the separation of humans from their environment, as well as issues of agency and voice. The processual, realist ontology of the philosophers Deleuze and Guattari and those they have influenced like Ingold suggest a number of topological alternatives that forego the geometric. In the ninth plateau, Deleuze and Guattari discuss the effect of geometric thought:

If there exists a primitive “geometry” (a protogeometry), it is an operative geometry in which figures are never separable from the affectations befalling them, the lines of their becoming, the segments of their segmentation: there is “roundness,” but no circle, “alignments,” but no straight line, etc. On the contrary, State geometry, or rather the bond between the State and geometry, manifests itself in the primacy of the theorem-element, which substitutes fixed or ideal essences for supple morphological formations, properties for affects, predetermined segments for segmentations-in-progress. Geometry and arithmetic take on the power of the scalpel. (212)

With Deleuze and Guattari there is no centre and no circumference, and lines are infinite and points are neither beginning nor endings but nodes of entanglements, stations, both thing and process at the same time, something like the wave-particle duality of quantum mechanics. Lines, things and events take on alternate nuances through the lens of this de-centred, de-framed realist ontology. The next chapter will explore how this thought—this machinic ecology—may help conceptually to root environmentalist and ecocritical discourse in the ecological realities of interrelatedness and flux.

To think machinically is to view the world in terms of an incessant mutability or flux. (Halsey, *Deleuze* 61)

## 4. Machinic Ecology

What this cohesion is, what this immanence, is impossible to imagine. It is at once amalgam out of which solidarity is born, and the self which creates directions. It is all explained in the word, Radiation. The interweaving of creatures with their emanations is creation. We are simultaneously points of arrival and points of departure. (Victor Hugo, qtd. in Heat-Moon 215)

Is not “lived world” a euphemism for “known world,” “represented world,” “world real for a subject”? *Real* reality is the (still virtual) province of cosmologists, the theorists of quantum gravity and superstring theory. But listen to these custodians of real reality and it becomes obvious—it has been obvious, I might add, for more than seventy-five years—that at the heart of the matter, there is no stuff; only form, only relation (Vivieros de Castro 484)

The subject of Deleuze and Guattari’s collaborative work is thinking. They put forth a challenge to think machinically, to think multiplicity, and to think of life in terms of immanent becoming. This chapter looks more closely at their geophilosophy and their understanding of literary art in order to suggest an alternative to certain currents in ecocritical theory and practice that continue to be entangled in dualistic, transcendent and ideological thought, and which, in their inclination towards representationalism, tend to confuse ends with means with regards to the purpose or function of art.

Herzogenrath suggests that their philosophy “has more in common with ecological concerns . . . than meets the eye” (“Nature” 4). He goes on to describe their “ecology | machinics” as being

far removed from what might be termed “intellectual tree-hugging” —it is basically a call to think complexity, and to complex thinking, a way to think the environment as a negotiation of dynamic arrangements of human and nonhuman stressors, both of which are informed and “intelligent.” It refers to a pragmatic and site-specific

tracing of infinitely complex ecological arrangements, and as such cannot rely either on a theory of cultural | linguistic constructivism or on a natural | biological determinism. (“Nature” 4-5)

Dianne Chisholm introduces a special edition of *Rhizomes* devoted to “Deleuze and Guattari's Ecophilosophy” by asking “[h]ow do Deleuze and Guattari help us rethink our ecological crises beyond the impasses of State-sanctioned resource exploitation and reactive environmentalism?” The essays included in the journal go on to answer her question in a variety of ways, conducting, as she writes, “bold experiments in using D/G's rhizome of concepts to alter and advance ecological literacy.” She suggests that Deleuze and Guattari’s use of the term *geophilosophy* is perhaps largely due to the fact that, besides ecology, they also draw explicitly from other sciences such as biology, zoology, ethology, geography, geology, meteorology, and chaos and complexity theory, in order to “compose an ontology and politics for enhancing creative terrestrial life.” Chisholm argues that their geophilosophy is “*more ecological than ecology*,” which she defines as being “restricted to the quantifying analytics of ecosystem dynamics, ecosite constituencies, and population stability and sustainability.” Alternatively, she suggests, Deleuze and Guattari articulate

. . . an ontology of ecological consistency that maps for us a rhizome—or symbiotic network of matter-energy flow—that we can either block with environmental damage or extend so as to increase the functional and expressive health of machinic assemblages (couplings of earth and socius).

Deleuze and Guattari’s contribution to ecological thought, or as they term it, “geophilosophy,” is summarized by Patrick Hayden as

the attempt to formulate a mode of thinking in association with, and as the affirmation of, the diversity and multiplicity of the continuous

becomings of a fluctuating natural reality. In effect, this attempt amounts to the effort to construct a new way of thinking that is naturalistic and ecologically oriented because it seeks to eliminate the traditional dichotomy separating humanity (as subject) and nature (as object) by "stretching out a plane of immanence," which, they write, "absorbs" the Earth, that is, bonds together with it without eliminating the singularity, uniqueness, or difference of each thing that is a part of this relationship. (29)

In their brand of realist ontology they have taken interconnectedness to another level of radicalism—to the very foundations of matter, energy and form. For them, the world, as Ingold words it, "is continually on the boil" ("Bringing" 14). Yet, "things" *do* form out of this flux. Deleuze and Guattari describe an ecology of materiality that emphasizes the *becoming* nature of things. They describe how an understanding of rhizomes, or lines of flux, lines of becoming, as constituting matter through infinite varieties of machinic processes, can provide a greater and more fundamental ecological understanding. This chapter focuses on examining the 'machinic ecology' of Deleuze and Guattari through three concepts that are central to their geophilosophy: flow, multiplicity and machines.

### ***Flow and Immanent Becoming***

The laws of thermodynamics dictate that systems be open to the flux of energy, and ecologists have always accounted for this, However, fluxes of materials, organisms, and information across system boundaries are now known to be common. (Pickett et al 180)

So how are we to define this matter-movement, this matter-energy, this matter-flow, this matter in variation that enters assemblages and leaves them? (*Plateaus* 1227)

The supposed real world that would lie behind the flux of becoming is not, Deleuze insists, a stable world of being; there 'is' nothing other than the

flow of becoming. All 'beings' are just relatively stable moments in a flow of becoming-life. (Colebrook, *Deleuze* 125)

If there is a single concept that can cross the linguistic barriers between science, philosophy and art it may be, as has been suggested throughout this paper, "flux." Related to notions of change, generativity, and interrelatedness, Deleuze and Guattari refer to flux as "desire" to go beyond any notion of the simple flows of either movement, energy or material interchanges, towards an appreciation of the complex interactions among such flows involved in a world understood in terms of immanent becoming—or rather, desire is that which results in flows and fluctuation.

As Guattari elaborates:

[D]esire is everything that exists before the opposition between subject and object, before representation and production. It's everything whereby the world and affects constitute us outside of ourselves, in spite of ourselves. It's everything that overflows from us. That's why we define it as flow [flux]. Within this context we were led to forge a new notion in order to specify in what way this kind of desire is not some sort of undifferentiated magma, and thereby dangerous, suspicious, or incestuous. So we speak of machines, of "desiring machines", in order to indicate that there is as yet no question here of "structure", that is, of any subjective position, objective redundancy, or coordinates of reference. Machines arrange and connect flows. They do not recognize distinctions between persons, organs, material flows, and semiotic flows. ("Desire" 205).

Desire in this sense is not 'want' but describes the immanent nature of flows and bodies: "What something *is* is its flow of desire, and such forces produce diverging and multiple relations." The need for this notion of desire is directly

related to Deleuze and Guattari's assertion that in order to liberate thinking from the images of thought, we must imagine how we might think differently without the reliance upon a single relation, or fixed identity, or other "pre-given, (or transcendent) model" to provide a foundation for thought (Colebrook, *Understanding* xv-xvii). This also means a move away from notions of *being* in favour of becoming. Rather than assuming that becoming is something that a being enacts or goes through Deleuze and Guattari assume the reverse, that it is through the flux of various becomings—actions, perceptions, affects—that being is organized or perceived:

There is no Being, or at least no Being which is separate from the processes of becoming. Our world consists of moments of becoming, the mingling of bodies, the meeting of forces, a constant interpenetration and interconnection of all phenomena. There is no beginning or end to this process. (O'Sullivan 56)

Or, as Deleuze and Guattari remark: "We are not in the world, we become with the world" (*Philosophy* 169). We become with the world as individualized multiplicities nested within a world of other multiplicities.

### ***Multiplicity***

Deleuze and Guattari wield the term "multiplicity" to describe how life is involved in a constant process of becoming and how every entity is both individuated and unified by the radical interrelatedness invoked by a world of multiplicities: "[E]ach individual is an infinite multiplicity, and the whole of Nature is a multiplicity of perfectly individuated multiplicities" (*Plateaus* 254). Multiplicities are in constant flux as they interact with other multiplicities, and moreover can only be defined by these interactions:

A multiplicity is defined not by its elements, nor by a center of unification or comprehension. It is defined by the number of dimensions it has; it is not divisible, it cannot lose or gain a dimension *without changing its nature*. Since its variations and dimensions are immanent to it, *it amounts to the same thing to say that each multiplicity is already composed of heterogeneous terms in symbiosis, and that a multiplicity is continually transforming itself into a string of other multiplicities, according to its thresholds and doors.* (Plateaus 249)

These transformations are also described as processes of deterritorialization. In Halsey's description,

'Immanent deterritorialization' means that *everybody* – whether it be a flower, bird, forest, regulatory institution, or whatever – continually faces, intermingles with, draws energy from, or opens onto other bodies *which are themselves multiplicities.* (Deleuze 79 n.9)

Deterritorialization and reterritorialization describe the dynamic relations between physical and/or psychosocial forces or flows. Thus the force of the sun's gravity territorializes the earth in its travels through space, acting on it through the exertion of a force. The act of taking a tree's branch and turning it into a tool is both a material *and* a phenomenological reterritorialization. From another point of view, a sharpened stick is a deterritorialized branch, which is released from its previous role as a component of a living tree (Deleuze and Guattari *Philosophy* 67); also, a person, like any other multiplicity,

is always a point of departure for the production of a flow, a point of destination for the reception of a flow, a flow of any kind; or, better yet, an interception of many flows. (Deleuze, "Lecture")

Applied in an evolutionary context, Deleuze and Guattari describe how such processes can explain how *aparallel evolution* occurs between two entirely separate species:

The orchid deterritorializes by forming an image, a tracing of a wasp; but the wasp reterritorializes on that image. The wasp is nevertheless deterritorialized, becoming a piece in the orchid's reproductive apparatus. But it reterritorializes the orchid by transporting its pollen. Wasp and orchid, as heterogeneous elements, form a rhizome. It could be said that the orchid imitates the wasp, reproducing its image in a signifying fashion (mimesis, mimicry, lure, etc.). But this is true only on the level of the strata—a parallelism between two strata such that a plant organization on one imitates an animal organization on the other. At the same time, something else entirely is going on: not imitation at all but a capture of code, surplus value of code, an increase in valence, a veritable becoming, a becoming-wasp of the orchid and a becoming-orchid of the wasp. (*Plateaus* 10)

Thus, all multiplicities are bodies that are differentiated by such territorializing processes, and all bodies are multiplicities, which, as Halsey comments, “applies as much to the so-called “nonhuman” body of a spent nuclear fuel rod, or an electorate, or a forest, as it does to the “human” body of a scientist, a politician or an environmental protester” (“Ecology” 45). Claire Colebrook adds that a “human body is an assemblage of genetic material, ideas, powers of acting and a relation to other bodies. A tribe is an assemblage of bodies” (*Understanding* 86). Importantly, it must be understood that the differentiating connections pre-exist any bodies, or “machinic assemblages,” and to reflect on this notion is to encounter a way of thinking ecologically that is much more fundamental in its accommodating of flux and interrelatedness than a view which posits the integrity of “wholes,”—whether

species, ecosystems, human bodies or social bodies—as providing the criteria for determining the value of their various relationships. It is for this reason, Colebrook explains—“to get away from the idea that wholes pre-exist connections”—that Deleuze and Guattari refer to “machinic’ assemblages,” rather than organisms or mechanisms (*Understanding* 86).

### ***Machinic Assemblages***

An *organism* is a bounded whole with an identity and end. A *mechanism* is a closed machine with a specific function. A *machine*, however, is nothing more than its connections; it is not made by anything, is not for anything and has no closed identity. (Colebrook, *Deleuze* 56)

Deleuze and Guattari’s conceptualization of machinic thought provokes an understanding of life in all its instances without recourse to abstract notions of some transcendent unity, foundation, origins or ends. Machinic thought can provide an understanding of the radical interrelatedness of life and the material universe, for machines have no subjective status or organizing centre—a machine is no more than its connections and productions. To understand machinic thought is to have an understanding of the diverse and creative aspects of life as becoming.

The *machinic* is not related to, but opposed to the purely mechanical. Like many of their neologisms, the *machinic* is never finally defined, but rather its functionings described as part of the rhizomatic structure of Deleuze and Guattari’s resistance movement against grand narratives, foundational thought, and essences. This articulation of the “machinic nature of the world,” is related, Halsey also notes, to such process oriented thinkers as Thales, Heraclitus and Homer (“Ecology” 34). When Deleuze and Guattari speak of machines they refer to *processes* that “break and redirect flows—flows of capital, wood, metal, genes, friendship, knowledge, work and so forth” (Halsey, *Deleuze* 71). Machines are ubiquitous, write Deleuze and Guattari:

Everywhere it is machines—real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections. An organ-machine is plugged into an energy-source-machine: the one produces a flow that the other interrupts. (*Anti-Oedipus* 1)

They emphasize that these are not metaphorical but real machines that interrupt flows and are interrupted according to various modes of relation. They are processes which “give to the earth its discursive qualities . . . and which, on occasion, implode the logic underpinning such qualities and quantities,” without which there would be “no *thing* as Nature, Man, Woman, Species, Environmental Harm, Conflict, Forest, and the like” (Halsey, *Deleuze* 72). As Bernd Herzogenrath points out, a machine

neither proceeds from nor leads to an organic whole, a unity—an essence . . . [it] is nothing more—and nothing less—than the connections and assemblages it consists of, and its productions . . . a variety of machines, such as self-organizing machines, ordered and static machines, dynamic machines, biological machines, and also the discursive and cultural machines of representation. (Herzogenrath 5)

Halsey characterizes machines | multiplicities as “excesses,” and “proliferations,” “machinic assemblages,” emphasizing their immanence and opening, or reaching out to other multiplicities:

Trees, for example, are a multiplicity (an excess) in that they open onto a plethora of other machinic assemblages (construction-machines, bird-machines, insect-machines, sun-machines, playhouse-machines, etc.). And these “secondary” machines all deterritorialise and reterritorialise around other multiplicities (resident-machines, worm-machines, leaf-machines, seed-machines, nostalgia-machines)

and infuse different kinds of flows (familial, invertebrate, cellular, granular, neuronal). (“Ecology” 46)

Humans too are assemblages of various machinic processes—blood machines, skin machines, bone machines, bacterial machines, hormonal machines, neural machines, language machines—all creatively integrating in human becomings. Machinic thought frees us from a Nature thought of as some primordial or eternal entity to become an “affect”

produced continually alongside – indeed through – the various machines (political, scientific, industrial) that spill forth various bodies, statements, and signifying regimes from one moment to the next. (Halsey, “Ecology” 46)

Thus life does not progress from an already given set of possibilities, rather it is a process of creation, of the creation of more and more opportunities for becoming, maximizing its effectiveness as individual assemblages of machinic flows:

Life is not just the progression of ordered sequences from some already given set of possibilities. Each branching out of difference creates the expansion of possibility, so the ‘end’ of life is not given, there is no goal towards which life is striving. But there is an ‘internal’ or effective striving in life: to enhance its power, to maximise what it can do. This is achieved not by all events leading up to an end, but by the creation of ever divergent ends, creating more and more series or ‘lines’ of becoming. In *A Thousand Plateaus* Deleuze and Guattari refer to life’s production of ‘lines of flight’, where mutations and differences produce not just the progression of history but disruptions, breaks, new beginnings and ‘monstrous’ births. (Colebrook, *Deleuze* 57)

Ecological thought that can apply this understanding will not attempt to ground itself on some notion of eternal or universal being, no longer focus on conservation or preservation, and certainly not on the recovery of some lost state of “natural” being, but will assume the immanence, precarious mutability, and adventurousness of life as interconnecting assemblages of desiring machines, and attend to mapping out flows and connections in order to better understand the complex dynamic involved in each and every event of life.

In *Art Encounters Deleuze and Guattari*, Simon O’Sullivan suggests that these philosophers, with their notions of multiplicities, rhizomes, and machinic assemblages, offer a kind of “fiction” that “allows us to imagine our world differently,” an understanding of the world as a “plane of immanent connectivity and complexity ... ‘seen’ without the spectacles of representation,” that offers “escape routes ... from our representational and often over stratified sense of self,” and I would add, sense of the world (28-29). Perhaps, then, the answer to Dana Phillips’s question, “[w]hat is the truth of ecology, insofar as this truth is addressed by literature and art?”, is that such truth might best be apprehended—at least in the radical or “subversive” sense suggested by Neil Evernden—through such fictions. Or, perhaps, the question would be more appropriately asked in reverse: “What is the truth of fiction, insofar as this truth addresses ecology?” Mechanically understood, the truth of ecology (and art) is not transcendent but immanent, not located in the composition of distinct objects or subjects, but in the fluxes, intensities and velocities out of which multiplicities arise. In the next section, and in the subsequent chapter, I will make some comparisons between the machinic thought of Deleuze and Guattari’s “geophilosophy” and the practice of ecocriticism, and suggest, in a preliminary way, an alternate approach to criticism for which I offer the term *geocriticism*.

## **Geocriticism**

The tick is organically constructed in such a way that it finds its counterpoint in any mammal whatever that passes below its branch, as oak leaves arranged in the form of tiles find their counterpoint in the raindrops that stream over them. This is not a teleological conception but a melodic one in which we no longer know what is art and what nature ... (Deleuze and Guattari, *Philosophy* 185)

The most complicated machines are made only with words ... The symbolic world is the world of the machine. (Jacques Lacan qtd. in Herzogenrath 6)

A strange ecology, tracing a line of writing, music or painting. (Deleuze and Parnet 75)

This paper has been exploring a situation wherein, as Jimmie Killingsworth describes, “ecocriticism and environmental rhetoric emerged under the sign of a ‘naive’ realism, which views ‘nature’ as an object that can be brought seamlessly into the language of those who would defend, promote, and protect it” (7), accompanied by a strong desire among many ecocritics to “evaluate texts and ideas using ‘the environment’ as a secure and transcendent measuring rod” (Herzogenrath, “Nature” 2). It has suggested that the only serious counter to this situation are efforts to apply scientific concepts and principles to literary criticism which, as I have argued, may be seen as superficial at best, and at worst, misleading. Despite the efforts of ecocriticism to assert an “earth-centred approach to literary studies” (Glotfelty xix), from a geophilosophical perspective it seldom treats the earth, as Deleuze insists that philosophical thought must, as “the immanent conditions of that which it is trying to think.” Instead of framing thought with such transcendent or essentialist concepts as “the environment,” “nature,” or “ecology,” geophilosophical thought is concerned with creating “movement and consequences” (Roffe). This is also Deleuze and Guattari’s position on literary works, which, viewed through the lens of geophilosophy, are also machinic assemblages participating in the flux of the world:

[A]ll we know are assemblages . . . An assemblage, in its multiplicity, necessarily acts on semiotic flows, material flows, and social flows simultaneously . . . (*Plateaus* 22-23)

I use the term *geocriticism* to describe an alternate approach to ecological literary criticism that is premised on an understanding of the world as a continual process of becoming and comprised of complexly interrelated multiplicities, flows and fluxes. I suggest that the use of this term may assist in avoiding the assorted mis-associations that the term “ecocriticism” has accumulated during its brief life thus far due to its close association with environmentalist thought and its naïve understanding of ecology, and to distinguish an approach that is largely informed by the geophilosophy of Deleuze and Guattari. I wish, as well, to infer a point of view with the “geo” prefix that works to de-privilege human subjectivity—something that “eco” tends to remain loyal to, both etymologically (*οἶκος* implies *our* house or environment), and in its relation to environmental discourse or ecology that may function, as Mark Halsey suggests, as an “*affect* of modernity – an affect, that is, of the modern episteme and its incessant search for *certainty* (of existence), *closure* (around organisms and inert matter), and *foundation* (of life)” (11). A geocritical approach to literary analysis would be less concerned with supporting a position such as eco- or bio-centrism, or establishing agency, subjecthood, or a voice for “earth-others.” In fact, it would avoid at all costs any reification of representationalism. It would not view literary art as making a claim about what or how the world *is*. A geocritical approach would not view literature as a platform for ideology—whether “green” or other—though such ideologies may be present. It would view literary art firstly as a machinic assemblage, a multiplicity of interrupted and amalgamated flows. It would gauge the effectiveness of literary art not merely as a cultural artefact, but as participating in

the flux of life through its machinic connections and its creation, or positing if you will, of new affects:

Life is a dynamic swarm of affects, of interactions, encounters or purely machinic connections and productions. It is from affects that distinct beings are formed. A body makes certain affective connections, its mouth is drawn to a breast, its eye directed to a face, its hands attracted to tools. These *investments* or connections create what it is to be human. (Colebrook, *Deleuze* 61)

For Deleuze and Guattari, literary art does not represent, is not an image of a world “out there” or the mind of an author, but is a collective enunciation of all the interacting flows that make up each particular assemblage:

There is no longer a tripartite division between a field of reality (the world) and a field of representation (the book) and a field of subjectivity (the author). Rather, an assemblage establishes connections between certain multiplicities drawn from each of these orders, so that a book has no sequel nor the world as its object nor one or several authors as its subject. In short, we think that one cannot write sufficiently in the name of an outside. The outside has no image, no signification, no subjectivity. The book as assemblage with the outside, against the book as image of the world. (*Plateaus* 23)

Every machinic assemblage implies a collective assemblage of annunciation:

“There is no individual enunciation. There is not even a subject of enunciation” (79). This is a radical truth that thinking multiplicity implies for both an understanding of ecology, human thought and literary works:

There are no individual statements, there never are. Every statement is the product of a machinic assemblage, in other words, of collective

agents of enunciation (take "collective agents" to mean not peoples or societies but multiplicities). (*Plateaus* 37)

Alain Badiou suggests that even proponents of Deleuzian philosophy seldom appreciate the implications of the machinic for the autonomy of the human agent:

[T]he strictly "machinic" conception that Deleuze has, not only of desire (the famous "desiring-machines") but, even more so, of will or choice. . . strictly precludes any idea of ourselves as being, at any time, the source of what we think or do. Everything always stems from afar—indeed, everything is always "already-there." (10-11)

This is particularly pertinent for some issues that have been at the heart of environmentalist and ecocritical practices. Questions of agency and voice have figured largely in attempts to provide ways of dismantling anthropocentric structures of thought and the environmental degradation that results from social practices that view the non-human as at best somehow separate, and at worst entirely at society's disposal. Ecocritics have been particularly keen on discovering within literature attempts to provide a voice for nature or to flatten the field of agency so as to provide some basis for alternate views on subjecthood and thus the possibility for the application of environmental justice for those who cannot speak for themselves. By replacing subjects and objects with machines and multiplicities, geophilosophy offers a particularly promising way of reframing this debate.

Another way to perceive the machinic with regards to questions of agency and subjecthood is in Bruno Latour's critique of modernity. In *We Have Never Been Modern*, Latour suggests a "Copernican counter-revolution" that proceeds from an ontological *a priori* position of multiplicity:

We do not need to attach our explanations to the two pure forms known as the Object or Subject/Society, because these are, on the contrary, partial and purified results of the central practice that is our

sole concern. The explanations we seek will indeed obtain Nature and Society, but only as a final outcome, not as a beginning. Nature does revolve, but not around the Subject/Society. It revolves around the collective that produces things and people. The Subject does revolve, but not around Nature. It revolves around the collective out of which people and things are generated. (79)

Latour posits that every *thing* in a collective is an actor, or *actant*—a term he also uses to avoid anthropomorphisms—an “acting agent,” an “intervener” (*Politics* 75). He also refers to actors as “propositions,” as Graham Harman, quoting Latour, explains:

Every actor is a proposition: a surprising marriage of components that never expected to find themselves together, or which were at least surprised by the exact nature of their union. And “the relation established between propositions is not that of a correspondence across a yawning gap, but what I will call *articulation*.” (Harman 142)

Propositions do not have the fixed boundaries of objects, nor are they statements about facts. They are more like collections of properties, multi-jointed and ready for articulation with other propositions. Articulation then means both a communication (between propositions) and connectedness (in the way toast is connected to jam, or a toaster is connected to the electricity grid). To continue with this everyday example, the act of making toast involves articulations between me, bread, toaster and the myriad actors involved in responding to the demand for electricity and maintaining the grid, and, of course, the electrons themselves. To say that “I made the toast” then becomes a statement rife with inaccuracies. Furthermore, the toast is articulate, is more independent an actor, because of its many articulations over the course of its history. We can speak of toast *because* it is itself articulated. As Latour states, “The notion of articulated propositions

establishes between knower and known entirely different relations from those in the traditional view" (*Pandora* 144). Understanding how people and things are generated out of the collective of actant/propositions and their articulations not only dismantles subject-object dualisms, and redefines agency, it also reconfigures the privileged role of human language as the primary mechanism for articulating the things of the world:

Instead of being the privilege of a human mind surrounded by mute things, articulation becomes the very common property of propositions, in which many kinds of entities can participate. (*Pandora* 142).

Latour's articulating propositions can help to broaden an understanding of machinic thought, and, as well, can be useful in developing a geocritical approach to the study of literary art. Every work of art is a convergence of a number of agents/actants/propositions—mental, social and material— which are primarily channelled through the author; or more accurately, the work is plugged into the same machinic flows that the author-as-assemblage is. The art work does not represent the machinic flows, but reconfigures them creatively to actualize their potential in new and unique ways. Art as well as philosophy for Deleuze provide opportunities for replacing 'images of thought' with creative explorations of new possibilities for becoming. He distinguishes between "minor" and "major" literature in this sense, that a major literature *represents* existing images of thought, forms of identity, standards of being, while minor literatures, Colebrook explains,

create collective assemblages; they form styles that allow bodies to form new territories, constantly breaking off from any image of a general or universal subject. A major literature repeats forms of the

past, and subjugates itself to some supposed identity which all those forms express. (*Deleuze* 122-23)

Thus, literature may be understood as a form of “*active* thinking: a thinking that is not defined by an image it creates of itself, but that reforms itself over and over again, eternally” (66).

Simply put, the questions Deleuze and Guattari pose are: for thought, how to think multiplicity; for art, how to express multiplicity; and for ethics, how to act as a multiplicity. Ultimately, a machinic approach has to do less with meaning, identity or representation, and more to do with how things ‘fit’ together; in other words, with what works to increase the dynamic, creative and interrelated production of life:

[Life is open-ended: its impulse is not to reach a terminus but to keep on going. The artist, like the plant, or the molecule moves forward] . . . to join with the forces of the future . . . launches forth, hazards an improvisation. But to improvise is to join with the World, or meld with it. One ventures from home on the thread of a tune. Along sonorous, gestural, motor lines that mark the customary path of a child and graft themselves onto or begin to bud "lines of drift" with different loops, knots, speeds, movements, gestures, and sonorities. (*Plateaus* 311-12)

A machinic approach to literature may be then understood as “less involved in questions of definition and more with notions of function . . . what does this art work set in motion?” (O’Sullivan 28). We may then want to view literary texts in terms of what thoughts they instigate, rather than what they mean, or represent. We may want to imagine how we can plug into literary machines in a way that creates thought rather than merely triggering existing images of thought. This in

itself is not something entirely new to ecological literary criticism. As Jonathan Levin has recently put forward, such a “literary ecology” would

cease to judge literary works by the standard of mimesis or even a narrow social utility but would look instead to the way in which imagination works in the world, the way in which the world represented is shaped by imagination, and, ultimately, what kinds of consequences these styles of imagining might have in the world.

(“Towards”)

Furthermore, while a Deleuzeo-Guattarian theoretical approach is as equally informed by science as it is by philosophy and art, it differentiates between their respective activities. Deleuze in particular is highly cognizant of the dangers of borrowing from science, but is intent on discovering the “echoes” between the three domains:

Each is creative. The true object of science is to create functions, the true object of art is to create sensory aggregates, and the true object of philosophy is to create concepts. From this viewpoint, given these general heads, however sketchy, of function, aggregate, and concept, we can pose the question of echoes and resonances between them. How is it possible—in their completely different lines of development, with quite different rhythms and movements of production—how is it possible for a concept, an aggregate, and a function to interact? (*Negotiations* 123-24)

For Deleuze the danger of invoking scientific propositions is the danger of the “arbitrary metaphor or of forced application.” He suggests that the dangers can be avoided “if we restrict ourselves to extracting from scientific operators a particular conceptualizable character which itself refers to non-scientific domains, and converges with science without applying it or making it a metaphor” (*Cinema* 129).

Thus he borrows from biology the concept of life as a principle of creation and applies it to an ethics (Smith "Introduction" xxiv).

A geocritical approach to literature is a Deleuzian "encounter" that "forces us to think":

The conditions of a true critique and a true creation are the same: the destruction of an image of thought which presupposes itself and the genesis of the act of thinking in thought itself. Something in the world forces us to think. This something is an object not of recognition but of a fundamental *encounter*. (*Difference* 139)

As Simon O'Sullivan explains, the fundamental difference between an object of encounter and one of recognition is that "with the latter our knowledges, beliefs and values are reconfirmed." An object of recognition is a "representation of something always already in place" in which case our "habitual way of being and acting in the world is reaffirmed and reinforced, and as a consequence no thought takes place." With an encounter, however, our "typical ways of being in the world are challenged, our systems of knowledge disrupted" and we are presented with an opportunity for "seeing and thinking" the world differently. "Life," O'Sullivan concludes, "when it truly is lived, is a history of these encounters, which will always necessarily occur beyond representation" (1). It is fundamental to a geocritical critique that literature be encountered in this way if it is to be assessed in terms of its ability to evoke new affects and percepts, to participate in the healthy becoming of the world—"making it new."

To encounter a book with a geocritical perspective is also to understand how it is always part of an ongoing gesture, and how the forces that inform the characters and plots flow from the outside and through to the reader:

The upshot is that a book is always written from and through its outside; it is defined by this 'outside' and not by the figure of the

author (its putative `subject') or that of the world (its equally specious `object'). This outside is a multiplicity, and into it is plugged a collective assemblage of enunciation and a machinic assemblage of desire, each permeating the other. The function of the book is thus to assemble with this heterogeneous outside, to move `rhizomatically', and not to represent `the' world. Deleuze believes that Anglo-American literature exemplifies this `rhizomatic' principle, it knows `how to move between things, establish a logic of the AND, overthrow ontology, do away with foundations, nullify endings and beginnings. They know how to practice pragmatics'. (Surin 172)

The "logic of the AND" describes a pragmatist approach that Deleuze contrasts with the empiricist logic of the "IS." the "logic of the AND" is the logic of becoming, versus the logic of being. Deleuze states clearly that it is not enough to create a "logic of relations" (multiplicity), if that logic subordinates those relations to being, to the verb "to be" . . .

. . . one must make the encounter with relations penetrate and corrupt everything, undermine being, make it topple over. Substitute the AND for IS. A *and* B . . . Thinking *with* AND, instead of thinking IS, instead of thinking *for* IS . . . is an extraordinary thought, and yet it is life. (Deleuze and Parnet 56-57)

In other words, this approach is pragmatist because it has to do with "life" and not merely the abstract notion of "IS," of life fixed, pinned down to the collector's card catalogue, subordinate to "the One which divides or the Being which encompasses it" (57).

For Deleuze and Guattari, the distinctiveness of literature has nothing to do with what it *is*, as Colebrook explains, "so much as the forces or powers of becoming that it reveals." Unlike Science, "which takes the flow of life and fixes it

into observable 'states of affairs' that can be ordered by functions," and unlike philosophy which "creates concepts in order to think the immanence of becoming," literature moves in its own direction or "tendency" (*Understanding* 105). Geocritical literary ecology is ecological in the sense that it reveals the workings of the myriad social, mental and material connections that make up characters and events in their becoming: "The writer invents assemblages starting from assemblages which have invented him, he makes one multiplicity pass into another" (Deleuze and Parnet 51-52). It views life not in terms of beginnings and ends, but always in the middle, not as static beings and relationships, but always in movement, always subject to difference outside of current knowledge and experience. It may even suggest an ecological praxis that effects change not by confrontation or violent intervention, but by forming a path alongside of the paths of other forces and bodies, forming new connections that change the course of all involved. Thus, the famous clarion call of the early twentieth-century modernists to "make it new" might then be reconfigured in literary ecology as a call for a literature and criticism of becoming.

What links literature and life (ecology) "in both their ontological and ethical aspects" are questions of *health* (Smith "Introduction" xv). Deleuze is adamant here about the distinction between ethics and morality. While morality involves a set of "constraining" rules "that judge actions and intentions by considering them in relation to transcendent values," ethics is a set of "facilitative" rules that "assess what we do, what we say, in relation to the ways of existing [immanent modes] involved" (*Negotiations* 100):

The "Good" or healthy life . . . is an overflowing and ascending form of existence, a mode of life that is able to transform itself depending on the forces it encounters, always increasing the power to live, always opening up new possibilities of life. For Deleuze, every

literary word implies a way of living, a form of life, and must be evaluated not only critically but also clinically. (Smith, "Introduction" xv)

A clinical appraisal examines how the literary work "functions." How do the various elements of the work—character, setting, plot, language—work together to express the "vitality" or "tenor" of life? How are the two "ontological powers of Life—the production of variation and the selection and synthesis of variants . . . the indispensable conditions of every creation" at work in the story, novel or poem? For Deleuze, what literature can do, and what the task of the writer is

is to participate in the construction of "new possibilities of life": the invention of new compositions in language style (style and syntax), the formation of new blocks of sensation (affects and percepts), the production of new modes of existence (intensities and becomings) . . . (Smith, "Introduction" lii)

Affects and percepts are created in art as non-subjective ("non-human") forces that produce responses (feelings and perceptions). Affects and percepts are "the genetic and immanent elements constitutive of a life," "pure possibles" or "becomings" that are "irreducible to the affections or perceptions of a subject" (xxx-xxxv). In freeing affects and percepts from any particular point of view, art makes them available for the formation of new subjectivities, and new worlds.

Thus, a geocritical approach invokes what Deleuze refers to as a "*literality of becoming*" (*What* 196). It treats literary texts as machines that may or may not contribute to the formation of new subjectivities, diversities and becomings. It is not interested in gleaning from literary texts mere evidence of nature, or examples of people living in harmony with their surroundings, or, conversely, of human practices that erode environmental health—in other words, a merely "moral" vision of the world. It is interested more in the processes that make up a world of

multiplicity, and how a particular work of literary art is implicated in the becoming of the world through the writer and the writing, the reader and the reading, and the affects and percepts that are produced within that configuration.

A geocritical approach is founded upon a logic of multiplicity and becoming. As Deleuze summarizes in the preface to *Dialogues*:

To extract the concepts which correspond to a multiplicity is to trace the lines of which it is made up, to determine the nature of these lines, to see how they become entangled, connect, bifurcate, avoid or fail to avoid the foci. These lines are true *becomings*, which are distinct not only from unities, but from the history in which they are developed. Multiplicities are made up of becomings without history, of individuation without subject (the way in which a river, a climate, an event, a day, an hour of the day, is individualized). That is, the concept exists just as much in empiricism as in rationalism, but it has a completely different use and a completely different nature: it is a being-multiple, instead of being-one, a being-whole or being as subject. Empiricism is fundamentally linked to a logic – a logic of multiplicities (of which relations are only one aspect). (viii)

To understand multiplicity and the nature of becoming is to participate in the flux of life, opening up new possibilities for interconnectedness, for growth and resilience—and, in terms of literature and art, participating in what Deleuze refers to as a “strange ecology” (75). The ecological ethic is at work here based on the “ontological and creative power of Life,” as Daniel W. Smith comments:

For what constitutes the health or activity of a mode of existence is precisely its capacity to construct such lines of flight, to affirm the power of life, to transform itself depending on the forces it encounters (the “ethical” vision of the world). A reactive or sickly

mode of existence, by contrast, cut off from its power of action or transformation, can only judge life in terms of its exhaustion or from the viewpoint of the higher values it erects against Life (the “moral” vision of the world). (lii-liii)

Thus, the “Truth” of ecology that has so evaded ecocritics (and perhaps many ecologists) is not to be found *in* the world (or its representations), but *with* the world: “The author creates the world,” says Deleuze, “but there is no world which awaits us to be created.” If we look to an author and the work in terms of who or what they speak for, or in the place of, or if an author assumes such a stance, then separation, division is created. Life as process has been stepped out of, and we are in the realm of the disconnected thought (the “image” of thought). Rather, Deleuze argues, one must “speak *with*, write *with* . . . [w]ith the world, with a part of the world, with people” (*Dialogues* 52).

If a common denominator can be found for the science of ecology and an ecological perspective, it is perhaps merely this: the truth of *flux*, of interconnectedness, and the health that is promoted through an “ethical vision of the world.” Studying the world, as it exists in literature, from this perspective may lead us further towards an understanding that “Art,” as Dana Phillips suggests, “can be Green, without literally being green” (157).

## 5. Barry Lopez Redux

. . . *out there* is a different world, older and greater and deeper by far than ours . . .  
(Edward Abbey 37)

What is realised in literary affect is not this or that message, not this or that speaker, but the power that allows for speaking and saying – freed from any subject of enunciation. (Colebrook, *Understanding* 106)

What matters on a path, what matters on a line, is always the middle, not the beginning or the end. We are always in the middle of a path, in the middle of something. (Deleuze and Parnet 28)

### Introduction

I will conclude in the following section with a brief re-appraisal of the writer Barry Lopez in order to further explore geocriticism as an alternate approach to ecological literary criticism that does not rely on the outmoded language and tropes—informed by essentialist ideas and outdated or poorly understood scientific concepts—that have informed much environmentalist thought and ecocritical practice. I choose Lopez for this exercise as he is one of ecocriticism’s favourite sons, and in what follows I review how he has been lauded as a paragon in the world of literary ecology, how that approbation has been criticized, and then suggest how he may be best read through a geocritical lens.

### Ecocriticism’s poster boy

Barry Lopez, best known for his non-fiction prose and in particular his National Book Award winning *Arctic Dreams: Imagination and Desire in a Northern Landscape*, has earned a reputation among ecocritics as a nature writer’s writer. He is widely respected as well as a spokesperson for environmental issues. Yet he does not classify himself as “any more a nature writer than Steinbeck was” (Newell 76). He might not have even been singled out in Dana Phillips’s highly negative

critique of the relationship between ecocriticism and nature writing if he hadn't already garnered so much attention from ecocritics; might have simply been recognized as a master of the personal essay, even though he has published more books of fiction than non-fiction.

Critical attention paid to Barry Lopez to date has been almost totally focused on his non-fictional prose and on characterizing the writer as either a literary psychologist (Slovic) or a natural philosopher (Curry, Mallory). Most of this attention has been on his National Book Award winning meditation on the arctic, *Arctic Dreams: Imagination and Desire in a Northern Landscape*. Of particular interest to ecocriticism has been Lopez's musings on the relationship between "landscape" and narrative, and his efforts at blending information from natural history and field biology, indigenous perspectives on their relationships with their environments with his own travel experiences. The inordinate amount of attention ecocriticism has given generally to non-fictional prose has been pointed out by several other critics and most forcefully by Phillips. The fact that the number of fictional works Lopez has published far outnumbers his non-fiction while the former has been relatively ignored by ecocritics—despite being highly praised by reviewers—is troubling to say the least. Phillips theorizes that ecocritics' preference for nature writing has to do with what seems like a widespread preoccupation in the field with "literal representation" and epistemological questions (7). Focusing on Lawrence Buell, who has been the most prolific voice in the development of ecocriticism, Phillips responds to his apparent argument for a rehabilitation of mimesis, or as Buell writes, "a faithful mimesis of the object world" (*Environmental* 84), with the suggestion that it reveals a "perhaps not fully conscious desire for a literature of presence" (6). For example, in a chapter entitled "Representing the Environment" Buell lauds Lopez's writing for reining in his more imaginative elements by giving "ultimate authority" regarding his

speculations on animal behaviour to what's "out there" (93). Buell is searching for some middle ground between classical realism and modern scepticism wherein "environmental literature" can earn its stripes by being accountable to both the demands of literary textuality and the "out there." He writes that he wants to revive the "claims of realism" so as to "reimagine textual representation as having a dual accountability to matter and to discursive mentation" (92). The ultimate goal for Buell is to promote environmental literariness, to be able to gauge the environmentality of texts by their faithfulness to "out there," and thus contribute to an "environmentalist praxis" (430). Specifically this praxis would "tease us toward awareness of ourselves as environmental beings" (251).

Consciousness raising is of course a legitimate and important part of environmental praxis, and of ecocritical practice as well, as the title of one of the earliest ecocritical treatments of nature writing—Scott Slovic's *Seeking Awareness in American Nature Writing*—and his study of "the psychological phenomenon of awareness" suggests. Slovic refers to Lopez and the other nature writers in his study as "literary psychologists. "Awareness," "seeing," "knowing," "meaning" are terms that frequent Slovic's and other critical treatments that Lopez has received, all directed at a literary activity that points to, or to an assumption that environmental literary activity should point to what Buell refers to as the "object world." Phillips's admonition aside—that "writers about nature would be better off leaving it to philosophers of the phenomenological variety to chart the shoal waters of consciousness" (214)—it is curious that a field that purports to be founded on an ecological perspective should support an epistemological position that posits an "out there" at all. However, Buell is explicit about the need for an environmental literature that can "render a faithful mimesis of the object world" with a degree of "facticity" by ensuring that "imaginary gardens have real toads in them" (84, 91). A number of critics besides Buell have looked to Lopez's notions of

interior and exterior landscapes to assist with theorizing a more intimate connection between mind and nature, or to, as Phillips writes, “force a general rapprochement of literature, culture, environmentalism, and ecology on a realist agenda” (10), by recovering a sense of the “experiential or referential aspects” of literature (Buell, *Environmental* 36). This is problematic from a geocritical perspective, particularly if it means that, again as Phillips suggests, “the best sort of literature offers a perfectly reliable model for understanding nature and that the best literary texts are all but transparent windows on the world” (140). From a geocritical perspective the questions raised by this “realist agenda” and Lopez’s musings on the relationship between world and mind, or “landscape and narrative,” have to do with issues of representation and the ontological status of texts.

### **Landscape and Narrative**

[rather than ] speak for, in the place of ... on the contrary, speak *with*, write *with*. With the world, with a part of the world, with people. Not a talk at all, but a conspiracy, a collision (Deleuze and Parnet 52)

Lopez himself has suggested an interest in epistemological issues and natural philosophy through the many interviews he has given and in his writing, most notably the short essay “Landscape and Narrative” and *Arctic Dreams*. For the most part, however, he speaks not in philosophic or theoretical terms but in terms of geography. Even when he is being his most overtly epistemological, as in “Landscape and Narrative,” he uses the terms interior and exterior “landscapes” to muse upon the relationship between thought and world. He is primarily interested with what he and others such as Wendell Berry and Kent Ryden have referred to as those “invisible landscapes” of “communal association and usage”

(Berry, "Writer" 27)—those relationships which the traveler must somehow glean from his own encounter with a place, along with the information and stories of those who inhabit or have studied it. Neither theorist nor philosopher, Lopez's non-fictional excursions are purely contemplative (a life path he considered following while at the Gethsemane monastery), and his real interest finally is in how to tell a good and authentic story about the travels you've made. He is a storyteller at heart, referring to himself as a "writer who travels" (Newell 77), and the few things he's had to say about the craft are mostly limited to the previously mentioned essay on narrative and, fictionally, in his picture book/travel parable, *Crow and Weasel*.

Most of the theorizing about Lopez's work has used the short essay "Landscape and Narrative" as a touchstone for questions regarding the epistemological and ontological relationships between mind and world, world and text, perhaps at times stretching its substance to cook up some rather watery soup. When someone like Buell interprets it as "a gestalt that can express itself on the mind or text in the fundamental and binding way" (Buell 86), it is no wonder that Phillips considers it to be a "dubious idea" (14), and even Buell himself eventually admits that the two-landscape theory gets somewhat "mystical" (103). Nevertheless, Buell goes as far as to suggest that "environmental literature" has a similar role and function as science, differing only in method:

Lopez's notion of "outer mimesis" in environmental nonfiction seemingly boils down to this. Literature functions as science's less systematic but more versatile complement. Both seek to make understandable a puzzling world. To a greater degree than science, literature releases imagination's free play, though the play is not entirely free, since the imagination is regulated by encounters with the environment both personal and exposed. Thus regulated, the

mind is at leisure to ramble among intriguing hypotheses, and it is not only permitted but expected to present theory as narrative or descriptive exposition rather than as argument. (94)

Such narrative, Buell continues, "is a *theory* of natural history; but nature is the court of appeal" (94). To conflate the purposes of literature and science, however, only sets literature up for a fall as has been suggested earlier in this paper. The objects of science and art differ, according to Deleuze and Guattari, in that scientific theories or notions are defined by "functions or propositions" (*Philosophy* 117) that "allow us to extend our perception beyond what is actually given" (Colebrook, *Understanding* 126). Art, on the other hand, as Colebrook explains, does not make a claim about "what the world *is*, but about the imagination of a possible world." Art, she continues,

is not about representation, concepts or judgement; art is the power to think in terms that are not so much cognitive and intellectual as *affective* (to do with feeling and sensible experience). We are not reading a work as artistic or literary if we read it for its representation of the world or its presentation of theories. (*Deleuze* 12)

The distinction may also be characterized as that between telling stories of "how the world is" (Evernden 56), or of how it can become. For it is in the context of storytelling that Lopez writes, and it is important to note that he states only that the "interior landscape responds to the character and subtlety of an exterior landscape," by which he means that the mind is "perceiving the relationships in it" ("Landscape" 64-65). For Lopez it is a question of "reciprocity," how to "occupy a place and also have it occupy you," how to have a "storied relationship" with a place ("Literature"). Lopez understands of course that, biologically speaking, to be alive is to occupy a place which per force also occupies us. The point is, as

multiplicities, to be aware of the various forces that occupy us. In Lopez, geography figures large, and largely in the Deleuzeo-Guattarian sense as a “matter of becoming . . . not merely physical and human but mental, like the landscape” (*What* 96). The forces which inform our becoming are always present, like the flora and fauna of a desert, yet may or may not thrive according to how we respond to them, consciously or not:

We are deserts, but populated by tribes, flora and fauna. We pass out of time in ordering these tribes, arranging them in other ways, getting rid of some and encouraging others to prosper. And all these clans, all these crowds, do not undermine the desert, which is our very ascesis; on the contrary they inhabit it, they pass through it, over it. (Deleuze and Parnet 11)

Lopez does not argue for more than this in his notions of interior and exterior landscapes, does not suggest a literal correspondence between mind and its objects, but only that to have a storied relationship with the rest of the world means being aware of one’s necessary articulation with and through all the multiple relationships that exist among local inhabitants and geographical features:

. . . those that are named and discernible, such as the nitrogen cycle, or a vertical sequence of Ordovician limestone, and others that are uncodified or ineffable, such as winter light falling on a particular kind of granite, or the effect of humidity on the frequency of a blackpoll warbler’s burst of song. (*Crossing* 65)

It is this emphasis on relationships that may defend him from charges of ontological dualism. In his writing he privileges neither subject nor object but the spaces in between, invisible landscapes where creatures, things and forces encounter each other in machinic interrelatedness and mutual becoming. All of his

writings may be read as sites of encounter in this sense; however, it is in his fictional writing that a geocritical reading may reveal a literary ecology at work which resists some of the more problematic aspects of ecocritical interpretations that look for evidence of “real toads” or support for some form of “holistic” environmentalist ideology.

### **Ecocriticism and fiction**

In a 2001 interview, Lopez admitted a concern that people will view his fiction “as another form of plea,” that while so much what is going on in nature writing is a plea “for justice or a plea for ethics in human dealings . . . that's not what's going on in fiction” (“Nature”). Often, it seems that ecocriticism has been on a constant lookout for such pleas, for conceptualizations of ideological and philosophical positions that support an environmentalist agenda, or for particular ways of “seeing” the environment. And perhaps it is a resistance in his fiction to such readings that has kept ecocritics at bay. For all the attention his nonfiction has received over the years, his fiction has garnered only one academic article by William Rueckert, and an overview in a brief work of appreciation by Mike Newell.

Barry Lopez has published eight works of fiction, which for the most part are made up of short Borgesian-like tales or vignettes that place characters in new, strange, uncomfortable, menacing and sometimes tragic circumstances. They are Borgesian in their smudging of lines—lines that separate fact from fiction, lines that contain voice and agency. They are full of movement and stillness, of people (and animals) and things, of talk and of silence. The various characters encounter these elements in ways that elicit responses that redirect their lives in some small but significant way. We are not given much—brief glimpses—but the intensity of the affects and percepts created here are often enough to give the stories their

power and timelessness. As one commentator describes, they are “open-ended, flush with understatement” (Newell 107). In many instances the characters could be said to become more than themselves, to “overcome the human” as Claire Colebrook writes, each individual “becoming-hybrid with what is not itself” (Deleuze 129).

Lopez is perhaps best known as a fiction writer through his “notes” trilogy: *Desert Notes: Reflections in the Eye of a Raven*, *River Notes: The Dance of Herons*, and *Field Notes: The Grace Note of the Canyon Wren*, though two of his other collections, *Winter Count* and *Light Action in the Caribbean*, have also been well received. Most of the stories are narrated in the first person or told in the manner of an oral storyteller, corresponding with Lopez’s interest in traditional storytelling. Each of the books is introduced with a vignette narrated by someone encountering a particular environment—a desert in *Desert*, a river in *River*, and a journey between the two in *Field*. While the first is told in the past tense, the latter two are in the present, as are many of the stories here. The effect of the present tense, a technique Lopez uses in his non-fiction, seems much more at home here. While in *Arctic Dreams* the conceit feels contrived at times, in the stories the sense of immediacy contributes to the feeling of encounter that each of the characters is experiencing: encounters with sun, water, rock, bird, friend, stranger. Some stories are non-traditional in form, shorn of plot, slim on character, sometimes purely descriptive like a painting, but with the fragility of a sand painting, seemingly composed purely for the present moment of its reading, like “The Wind” in which a woman is lying naked on the desert floor while an ant struggles against rock and wind to move a husk of grain, or like the mere snippet of Hemingway-like dialogue in “The Conversation” that speaks volumes in its page and a half. Others have a more traditional short-story form though with the same concentration and restraint.

Lopez's stories are genre-bending, postmodernist tales — with elements of magical realism thrown in here and there — that resist interpretation. There are few arcs in the spare plots — particularly in his earlier books — and very little characterization. The books have garnered wide praise from magazine and newspaper reviewers. A glance at the back covers will find such comments as “spare, sensitive, alive;” “A love song to a mountain river, an almost primeval prayer to the glorious power of nature;” “these stories celebrate the web of nature that holds the world together;” and so on. The only serious academic treatment they have received came from William Rueckert as part of an anthology in which he focused on *River Notes* in an approach not far removed from the dust jacket blurbs. In fact Rueckert argues against a thoroughly critical approach:

A relentless, systematic approach to this text would destroy it. One must be careful and attentive to hear what it is “saying,” to perceive what it is doing. In a sense, we must learn to save these notes from our highly trained analytic and hermeneutic minds by realizing that — here anyway — things most often just are, and that to turn them all into symbols is to trespass on, rather than share in, their being.  
 (“Barry Lopez” 149)

Dana Phillips suggests that Rueckert writes “as if he were describing the tending of an eternal flame, and not the reading of a slim volume of slender content, which is what *River Notes* actually is” (231). The content the stories are no doubt slender in terms of a realist reading, but Rueckert sees depth here that, while more suggestive than overt or even symbolic, is nonetheless significant in the depictions of ongoing struggles on the part of the characters for connection and understanding:

We are at a level of perception and knowledge here that is deeper than, before or beyond, reason. It is rendered in words because there

is no other way to render it, though much of experience is nonverbal, even preverbal . . . It is useful, though, to speak of connectedness and community in the largest possible sense—of the biosphere or ecosphere or planet earth. (147)

Despite the book's resistance to interpretation, Rueckert is able to tell us what it is "about": "the need to have a deep extraverbal or nonverbal knowledge of nature," and "how one can enter into a generative relationship with this absolute other—here nature . . ." (144-45). For Rueckert the book is also about representing nature in a realist fashion, about refusing to "reduce nature to or transform it into something that it is not, especially abstractions, symbols, or formulae":

Nature is. Birds are. Herons are herons. Stone is stone. Grains of sand must be experienced, known, and understood in terms of their own being and individuality. The river is there to experience, know, share being with. (143)

Rueckert's reading of Lopez is typical of ecocriticism in general in its search for literary arguments for its environmentalist agenda, or for accurate literary representations of nature. It speaks to the stories' literary merit that there is little there for such an ecocritical treatment. Lopez, in his fiction anyhow, is not heavy handed with his obvious concerns for healthier relationships between humans and the rest of the earth. He resists clichéd language, or coded messages, or simplistic representations of environmental issues. His depictions of landscapes are often more otherworldly or dreamlike than realistic, and the characters' understanding of where they are, and how to properly "be" where they are, is limited, and any epiphanies that they experience, slight. Yet, the stories have an unmistakable if somewhat mysterious power to move the reader. It is this sense of mystery that Rueckert responds to, and which Phillips criticizes, stating that "mystery" is a term that writers such as Lopez like to use to "paper over the gap between what is and

what they assume ought to be" (227). It is a serious charge and not unwarranted. Lopez comes close to positing a transcendent "Nature" when he suggests in *Arctic Dreams* that "the land" should be approached with an "uncalculating mind" in order to "preserve some of the mystery within it as a kind of wisdom to be experienced, not questioned" (*Arctic* 228). Certainly, there are many characters within his stories that appear to gain some sort of wisdom, however slight, through semi-mysterious means, but it is a wisdom attained not through sublime experiences of transcendence or unity, but through encounter with and opening up to experiences of mutual becoming—the way in which affects and percepts are articulated, the way the characters are implicated in becoming along with other multiplicities—becoming-river, becoming-heron, becoming-sand, becoming-other—rather than acting as mere witnesses to elemental "beings."

### **A geocritical perspective**

Man only becomes animal if the animal, for its part, becomes sound, colour or line. (Deleuze and Parnet 73)

In the "Introduction" to *Desert Notes* the first-person narrator describes how he learned about the desert through an escapade with his van—letting it idle in gear as he walked, ran, bicycled through, around and beyond it—abandoning the vehicle's "tendencies of direction and movement . . . together with its systems of roads, road signs, and stop lights" (8). In the "Introduction" to *River Notes* the narrator is standing by the ocean shoreline, watching and waiting, has been here for an undetermined amount of time—years maybe. He recounts his various exploits:

When tides and the wind and the scurrying of creatures rearrange these interminable grains of sand so that I must learn this surface all over again through the palms of my hands, I do.

Once I concentrated very hard on moving soundlessly down the beach . . . In this way I eventually became unknown even to myself . . . (64)

I washed the ashes of last night's fire from my hands and washed away a fear of darkness I was now heir to, sleeping alone and exposed on the broad beach. (66)

Finally s/he addresses the reader directly, suggesting a trip up the river:

When you are suddenly overwhelmed with a compassion that staggers you and you begin to run along the bank, at that moment when your fingers brush the soft skin of a deer-head orchid and you see sun-drenched bears stretched in an open field like young men, you will know a loss of guile and that the journey has begun. (67)

With the story "Buffalo" in *Winter Count*, an apparently historical event of 1845 is narrated concerning a herd of buffalo that died in Wyoming, trapped in deep snow that was covered by a crust "as sharp as window glass." Many years later, it is stated that the Arapaho tell a story about a herd of buffalo in Colorado during 1845 who left the deep snow and began climbing into the mountains singing a death song, eventually disappearing into the clouds. The narrator recounts stumbling upon these stories, eventually researching the facts to ascertain the veracity of the story he is telling us. He closes with:

I recently slept among weathered cottonwoods on the Laramie Plains in the vicinity of the Medicine Bow Mountains. I awoke in the morning to find my legs broken. (35)

These and many of the other stories that make up Lopez's fictional oeuvre are striking in part for the lack of characterization. Many of the characters are nameless, and even when named are not always filled out with personality.

However, they are not two-dimensional either; not if considered in a Deleuzian sense:

Characters are not harmonious and unified substances but assemblages or 'refrains': a collection of body-parts, gestures, desires and motifs. Each character therefore opens out on to a unique world or becoming, a unique way of moving through life and connecting with life. The character we encounter is a sign, but not of something that we might know or experience so much as a sign of an entirely different 'line' of experience or becoming. (Colebrook, *Deleuze* 106-07)

The characterization here is reminiscent of Virginia Woolf's *The Waves*, where, as Claire Colebrook suggests, "affects and percepts flow across characters." The viewpoints of the characters as such are "nothing more than flows of experience."

In *The Waves*

[t]here were not characters who *perceived*, so much as sites of perception or 'blocks of becoming' which were vaguely identified with proper names. Data, sensations and perceptions seem to flow through characters, thus showing characters to be nothing more than the images they encounter, nothing more than their singular becoming. (*Deleuze* 94)

In Lopez's stories neither subject nor object (interior nor exterior landscapes) are given untoward privilege or standing, but seem at times to be almost conflated, and we are unsure who is acting upon whom, suggestive of Lopez's assertion that "the interior landscape is a metaphorical representation of the exterior landscape" (*Crossing* 71). However, as metaphor relies upon an opposition between literal and figurative meanings, Deleuze would reject such a notion on the grounds that the literal is "unattainable." Conversely, this leads to an alternate way of understanding the affect of landscape on a subject:

Once it is understood that the literary landscape is not metaphorical, then the relation between the subject which perceives the landscape and the landscape which is the object is disrupted. The landscape sees as much as the subject, and the subject is involved in a becoming which disperses that subject . . . In order to "reach" the landscape, it is necessary to abandon oneself to the landscape. However, this abandon is not a way of locating some sort of 'objective' landscape, but rather of being affected by the landscape. (Marks 243)

In this sense, we are not looking at the text for some "authentic" representation of a literal landscape which we the reader can be affected by—this would be Buell's ideal—but are only concerned with the relationships between the textual subjects and textual landscapes/settings. It is through those relationships that affects and percepts flow; it is in this way that assemblage, in a literary context, occurs: "being in the middle, on the line of encounter between an internal world and the external world" (Deleuze and Parnet 52). This encounter does not set up a dualism between the subjective and the objective, but as an assemblage it is a "co-functioning, it is 'sympathy', symbiosis" (52). As readers we in turn encounter this assembling and so become implicated. As the characters within the story are defined by the assemblages into which they enter, so are we redefined by the affects and percepts that we experience there. Like the example of the wasp-becoming of the orchid and the orchid-becoming of the wasp, there is no imitation or conformation to a model, "[t]here is no terminus from which you set out, none which you arrive at or which you ought to arrive at," becomings "are not phenomena of imitation or assimilation" (2).

It is never filiations which are important, but alliances, alloys; these are not successions, lines of descent, but contagions, epidemics, the wind. Magicians are well aware of this. An animal is defined less by

its genus, its species, its organs, and its functions, than by the assemblages into which it enters. (69)

A striking example of this Deleuzian interplay can be found in Lopez's "Open Lot," in which the ontological roles normally assigned to subject and object, and to character and setting are questioned. In this story a third person narrator tells the story of Jane Weddell, who works at the Museum of Natural History prying fossils of marine organisms out of bits of rock. As in most of the stories, the main character is striking and unique, as is her life. The plot too is surprising, the more so as it combines—quite offhandedly—elements of magic realism in its scientific setting, confounding attempts to derive an exact meaning from the story. Her life is plugged into the machinic assemblages of the museum (the fossils, microscopes, the people, financial administration, the "field" and demand for academic publishing, the walls of granite), of the city in which she lives, of the patterns of flow created by the streets, traffic, weather, of her gift for recognizing the potential of rock to contain life, her preoccupation with *difference*. Jane not only notices differences, sometimes minute, that others tend to overlook, she sees beyond the "molar" differences of things (territorialized through systems of organization or definition) to "molecular" difference—the "virtual" potential of things to become.

We tend to think of life in terms of persons or bounded organisms, and we think of difference as the difference between extended units, such as men and women, or men and animals. But even here we have to see that the subject or 'man' is the outcome of a history of reducing intensive differences—all the possible genetic variations—into some form or recognisable image. (Colebrook, *Understanding* 84)

However, the process of territorialization, the organization of the flow of complex differences that comprise life into distinct bodies, categories, objects, actually

reduces difference according to Deleuze. We tend to only consider “relative” differences between one thing and another according to variations in appearance, composition, style, etc. We neglect to consider that what lies behind this realm of relations is a realm of virtual potentials that have been territorialized/reduced to this one thing, organism, concept or word.

In the character Jane Weddell we find that the world is never fixed, but always in the process of becoming something else. Like the micro-organisms that she “releases” from some non-descript rock, or how two trilobites can enter the light of day becoming accompanists to the music of Bach:

She hoped . . . someone might ask what the difference was between two trilobites of the same species where one had been extricated from its matrix with the music of Bach in her ears, the other with Haydn. She wanted to say that there were differences; for her, the precision the systematists sought in their genealogies, even with a foundation as exquisite as the one she provided, was a phantom, a seduction. (*Field 41*).

The restricted confines of the granite-walled building and the orthodox world of museology are offset only by her love for releasing the tiny animals from their calciferous prisons:

What was certain was that from a piece of stone in which a creature might reside—guessing simply from the way light broke on its surface—Jane Weddell would pry an animal wild as a swamp night. (39)

When her position at the museum is threatened by budgetary cutbacks—a “cut” in the flow of her days—she responds by uncharacteristically changing her pattern of movements to and from work. An “empty lot” she had recently gained an interest in becomes suddenly more alluring. She begins a study of the lot, observing the

seasonal changes in the flora and fauna, filling notebooks with her observations. The lot too begins to transform under her gaze as she studies it with the same passion she imbues in her professional life, coaxing out hidden elements lurking there. Animals start showing up, phantom-like—a bear, a herd of deer, a panther. The lot becomes a place of wonder and discovery for her, similar to, but outside of her lab, until one day when she finds it boarded up, transformed now into a construction site. She returns to her work, determined more than ever to coax the small beasts (“phantoms”) from their stony “tombs.” The story ends with a typical non-ending, defying the traditional short-story form, with no character arc, no climax or epiphany. Like Tim Ingold’s free-hand circle, the story seems part of a gesture, open-ended.

The story is typical of many in the trilogy in that unique affects (the sensitivity to difference) and percepts (the appearance and changes that occur in the lot), along with an emphasis on the interrelatedness of people, places and things are what give the story its lingering effect. It expresses an immanent mode of becoming, in the character of Jane. She responds to those immanent affects and percepts in her life—which go beyond the affections of character and the perceptions of surroundings (Smith, “Introduction” xxxiv)—in ways she is not particularly conscious of or understands, yet in ways that constitute the “individuation of a life” (*Plateaus* 261). The blending of music and her gift for discerning “in the bits of rock placed before her lines of such subtlety that no one who beheld her excisions could quite believe what she had done” (38), the way she varied her routes through the city to work, her path “determined by a pattern of complexity outside her thought” (37), a path which might be “defined by successive flights of pigeons” (38). Her vivid awareness of her environment seems almost overwhelming, which is why perhaps she prefers to work in granite walled museum, focused on her stony subjects:

. . . she was aware not only of the surface of each street but, simultaneously, of the tunnelling below, which carried water mains and tree roots, like the meandering chambers of gophers. And ranging above, she knew without having to look, were tiers upon tiers of human life, the joy and anger and curiosity of creatures like herself. (38)

Jane and her environment—study, street, lot—seem to be almost co-extensive, in the way Deleuze and Guattari describe the “dimensions of multiplicity” that are implicit in a world of immanent becoming:

Climate, wind, season, hour are not of another nature than the things, animals, or people that populate them, follow them, sleep and awaken within them. This should be read without a pause: the animal-stalks-at-five-o'clock. The becoming-evening, becoming-night of an animal, blood nuptials. Five o'clock is this animal! This animal is this place! "The thin dog is running in the road, this dog is the road," cries Virginia Woolf. That is how we need to feel.

Spatiotemporal relations, determinations, are not predicates of the thing but dimensions of multiplicities. (*Plateaus* 263)

Jane Weddell is very reminiscent of another literary character who, as Daniel W. Smith suggests in his introduction to Deleuze's *Essays Critical and Clinical*, functions as an aggregate of percepts making visible “the invisible forces that populate the universe, that affect us and make us become: characters pass into the landscape and themselves become part of the compound of sensations.” He explains:

Mrs. Dalloway has perceptions of the town, but this is because she has passed into the town like “a knife through everything,” to the point where she herself has become imperceptible; she is no longer a

person, but a becoming (“She would not say of herself, I am this, I am that”): the Town as a percept. What the percept makes visible are the invisible forces that populate the universe, that affect us and make us become: characters pass into the landscape and themselves become part of the compound of sensations. (xxxiv)

From a Deleuzian, clinical point of view, Jane Weddell functions as such an aggregate, both exemplifying the “making visible” those “invisible forces” — inside and outside the lab—and drawing the reader into her universe of multiplicities and becomings. There is no environmental moralizing in this tale, but there is a definite ethics at work that, while disrupting our sense of the ordinary and natural (as elements of magical realism often do), as well as our penchant for establishing strict boundaries, lines of definition, encourages us to accept our implication in the creation of a world that includes “phantoms,” or rather, the sometimes difficult to discern forces and articulations that exist in laboratory, street or any old patch of ground, and with which we are always entangled.

The geophilosophy of Deleuze and Guattari and their perspective on art and literature have much broader implications for literary study than have been utilized in this brief treatment of Lopez’s fiction, that go beyond issues of the conceptual and the tropological nature of ecocritical discourse. My discussion of a *geocritical* approach is no way meant to be exhaustive or even conclusive, but to point ecologically oriented literary criticism towards new ground and off of some very worn and eroded trails.

## 6. Conclusion: a strange ecology

A strange ecology, tracing a line of writing, music or painting.

(Deleuze and Parnet 75)

An approach to literary study based upon Deleuze and Guattari's geophilosophy can help to establish the contours of a literary ecology that, while privileging the role of the arts over that of science or philosophy, neglects neither—one which does not begin nor conclude with assumed normative terms such as nature, ecology, human, organic, or others that permeate environmentalist and ecocritical writing. It is an ecological approach in that it assumes the participation of literary works in the immanent becoming of the world, and that their role is not to merely represent it. They participate in it by creating effects, new opportunities for becoming, and by disturbing "the reality, morality, and economy of the world" (Deleuze, *Logic* 60)—like a forest fire disturbs a patch of land creating new opportunities for becoming-forest, or a genetic mutation disturbs a species. It is ecological in that it assumes that a literary work, like the freehand circle, is part of a gesture with no actual beginning or ending—functionally, it does not enclose meaning (interpretative), but is open, forward-moving (experimental)—it is always in the middle of things. It is ecological because it looks for "Life" in literature—life as "an impersonal and nonorganic power that goes beyond any lived experience" (Smith, "Introduction" xiv), and not just the representation of lives—looks for "new possibilities of life," "lines of flight" that can "affirm the power of life, to transform itself depending on the forces it encounters" (lii), and for that which degrades or inhibits life processes, stagnating both thought and lives. Finally, it is ecological because it does not judge works of art in terms of "transcendent or universal criteria," but evaluates them "clinically" in terms of their "vitality," and "tenor of Life" (liii). It is in this sense of

a clinical approach to literature that Daniel W. Smith summarizes Deleuze's essay entitled "To Have Done with Judgement":

Does the work carry the process of Life to this state of an impersonal power? Or does it interrupt the process, stop its movement, and become blocked in the *ressentiment* of persons, the rigors of organic organization, the clichés of a standard language, the dominance of an established order, the world "as it is," the judgement of God? . . . Life does not function in Deleuze's philosophy as a transcendent principle of judgement but as an immanent process of production or creation; it is neither an origin nor a goal, neither an *arche* nor a *telos*, but a pure process that always operates in the middle, *au milieu*, and proceeds by experimentations and unforeseen becomings. (liii)

This preliminary attempt at applying geophilosophy to literary study should be considered a result of my own "experimentations and unforeseen becomings;" situated at an environmental crossroads, as it were, its approach has been cognizant of the need to think, as Guattari directed in *The Three Ecologies*, more "transversally" (29). The need for different ways of thinking and acting have never been greater if we are to develop a *praxis* as academics that will contribute to greater understanding of the immanence of life and its contingencies and of how our language and concepts articulate with that reality, and thus with the health of the world.

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