

An [Un]Likely Alliance

An [Un]Likely Alliance:
Thinking Environment[s] with Deleuze|Guattari

Edited by

Bernd Herzogenrath



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INTRODUCTION

BERND HERZOGENRATH

In her seminal study *Bodies that Matter* Judith Butler stated that "some have argued that a rethinking of 'nature' as a set of dynamic interrelations suits both feminist and ecological aims (and has for some produced an otherwise unlikely alliance with the work of Gilles Deleuze" (4). While the Deleuze-Feminism Connection has already been focused on,¹ a likewise response to the second one—the alliance Deleuze and ecology—is as yet still underdeveloped.² As the essays in this collection will show, the alliance is not unlikely at all— provided that one term in the equation—the term ecology—will be re-interpreted and taken away from the hold of both more 'traditional' [essentialist] perspectives, as well as from the grip of the kind of social|linguistic constructivism that Butler herself is aligned with. A Deleuzian|Guattarian version of ecology does not see nature as distinct from, but coexistent with nature, and agency here is not restricted to one side—the human|cultural side—of the equation. 'Nature' rather is an open and dynamic whole that does not follow—as the term ecology might suggest—one logic (or even: logos); it might thus be more fitting, as Hanjo Berressem has recently suggested, to speak of "ecologies" instead (57).

Although motivated differently, Butler's statement links with Luc Ferry's critique in *The New Ecological Order* (1993), in which he accuses French philosophers such as Deleuze, Guattari, and Serres of an 'anti-humanist' stance which, according to Ferry, amounts to nothing less than a thinly-disguised 'new fascism.' For a neo-liberal humanist like himself, "it is insane to treat animals, beings of nature and not of freedom, as legal subjects. We consider it self-evident that only the latter are, so to speak, 'worthy of trial' (xvi). Privileging the question of 'legal status,' Ferry bypasses the more pressing problematics of what it means to be 'human' and 'free' if these categories cannot anymore be grounded in an essentialist and clear-cut separation of nature and culture, nature and 'man,' human and non-human, as Deleuze and Guattari—in both their individual and collective works—suggest:

we make no distinction between man and nature: the human essence of nature and the natural essence of man become one within nature in the form of production or industry ... man and nature are not like two opposite terms confronting each other—not even in the sense of bipolar opposites within a relationship of causation, ideation, or expression (cause and effect, subject and object, etc.); rather they are one and the same essential reality, the producer-product. (*Anti-Oedipus* 4-5)

'Thinking Environment[s]' with Deleuze|Guattari is thus far removed from what might be termed '(intellectual) tree-hugging'—it is a call to think complexity, and to complex thinking, a way to think the environment [and environments] as negotiations of human *and* nonhuman dynamics. Such a thinking by default carefully evades [Cartesian] dualisms such as 'nature' versus 'culture,' 'technology' versus 'biology,' or 'natural' versus 'artificial'—Guattari has even called for, in his book *Chaosmosis*, "a science of ecosystems" (91), for a "generalized ecology—or ecosophy" (91). The fact that Guattari points out the relevance of ecosystems, of a *generalized* ecology, shows the importance of the notion of *ecologies*, not just 'one world—one ecology.' Deleuze|Guattari's concept of ecology|ecosophy offers a fresh take on 'environment[s]' as complex systems.

At a time when "any distinction between nature and artifice is becoming blurred" (Deleuze *Negotiations* 155), Deleuze|Guattari propose nothing less than a radical re-thinking of ecological|environmental concepts and issues from a non-dualist and non-essentialist perspective. Such a rethinking, I would argue, makes the alliance of environmental studies with Deleuze|Guattari a rather fruitful, exciting and *likely* one, one that allows for a single mode of articulating environmental, evolutionary and technological registers and relations and for the conceptualization of a general, non-anthropocentric ecoscience. Neither does it follow the one-way logic of social|linguistic constructivism encountered in much of today's Ecocriticism:

The ecocritic wants to track environmental ideas and representations wherever they appear, to see more clearly a debate which seems to be taking place, often part-concealed, in a great many cultural spaces. Most of all, ecocriticism seeks to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis. (Kerridge|Sammels 5)

A Deleuzian|Guattarian version of ecology does not see 'nature,' as the majory of 'traditional' ecological or ecocritical approaches does, as a single and unified totality, it does not at all rhyme with Al Gore's fantasy

of The World Formerly Known as The Harmonious Universe, thrown out of its proper balance by mankind, the dominator and exploiter, and to be restored by man, its steward. Nature, seen as that dynamic, open whole is posed not in balance, but more in what Ludwig von Bertalanffy has termed "*Fließgleichgewicht*" (flowing, turbulent balance).³

While still focusing mainly on 'natural environments,' the essays in this volume situate these natural environments in the larger context of the 'generalized ecology' proposed by Guattari, taking 'nature' as a complex interplay of non|human dynamics into account: it is not 'the human race' that either 'stewards' or disturb an otherwise harmonious, well-balanced and stable nature—the natural environment is in itself turbulent, far from equilibrium.

Discussions concerned with current ecological crises have attempted to address and to utilize poststructuralist thought, but only few studies have delineated the ecological orientation of a specific poststructuralist. In his by now classic essay (which I am really grateful to reprint here) "Gilles Deleuze and Naturalism: A Convergence with Ecological Theory and Politics," Patrick Hayden provides a discussion of the naturalistic ontology embraced by the contemporary French philosopher Gilles Deleuze, one of the most significant voices in poststructuralism. Hayden interprets Deleuze as holding an ecologically informed perspective that emphasizes the human place within nature while encouraging awareness of and respect for the differences of interconnected life on the planet. Deleuze proves to be a significant exception to poststructuralism's generally hostile attitude towards naturalism, an attitude grounded on the view that naturalism is equivalent to essentialism and thus to a dualistic metaphysics. According to Hayden, Deleuze develops a "geophilosophy" that serves as an antidote to such hostility, suggesting that naturalism is in fact compatible with the critiques of essentialism and dualism that define poststructuralism. Hayden argues that this view may be joined with Deleuze's innovative ethical-political approach, which he refers to as micropolitics, to create new ways of thinking and feeling that support social and political transformation with respect to the flourishing of ecological diversity. For Deleuze we must not consider either nature or politics, as if they were mutually exclusive, but at nature *and* politics. Finally, Hayden I briefly shows how Deleuze's ecological orientation compares to several versions of contemporary ecopolitical theory. He argues here that Deleuze's work can help us to think how the concern with ecological destruction is a legitimate post-metaphysical political issue.

In her rereading of Darwin, Elizabeth Grosz addresses the relations between sexual selection and the origins of art practices by exploring the implications of Deleuze and Guattari's concept of the refrain. If the various arts are somehow linked to sexuality, sexual intensification and sexual selection, this is because art is a mode of intensification of living bodies, bodies both human and animal, a mode of resonance in which the forces of the earth, cosmological, climatological, regional directly impact on and transformed the lived forces of bodies. Our understanding of art is opened by linking art to natural rather than only cultural relations.

During the post-Katrina era, ecological issues have gradually become an integral part of the 'mainstream spectacle.' Although the political implications of such a development could not be underestimated, the specific mode of popularization, revolving around a 'green and clean' lifestyle and ecological buzzwords, has also brought about a trivializing trend, rendering insignificant the intricacy of the dynamic multipolar relations in the ecological realm. To counter this trivializing tendency, it seems crucial to reconsider the ecological in philosophical terms and create concepts that match its overall complexity. In fact, from a conceptual perspective, political ecology "has *not yet begun to exist*:" it needs "made-to-order garb" (Latour).

Situated at the interface of nature and culture, ecology figures less as a detached science than a 'permeable discipline' open to exchanges of the inter- and transdisciplinary kind; a science in need of the regular revision of its propositions and the readjustment of its tools according to changing parameters. Deleuzian philosophy, regarded as a form of process philosophy, is endowed with the capacity to develop dynamic concepts for tackling such contrasting polarities as unity and plurality, constancy and change, specificity and generality. As a conceptualizing machine, it can provide ecology with concepts that complement its scientific prospects or 'reprocess' its inherited philosophical notions. Deleuzian concepts are 'ecological' in the sense that they do not address the essences of things, but the dynamics of events and the becomings that go through them.

From Whitehead to Bateson and further to Deleuze, process philosophy can provide ecology with a conceptual ground that allows for the 'complexification' of the current ecological debate. Although such a complexification would already be an important 'further step' towards a truly ecological culture, beyond these political dynamics, 'processing ecology with Deleuze' allows for something that might ultimately be more important: the *ecologization* of the subject.

In her essay "'The Instructed Third: Processing Ecology with Deleuze,'" Leyla Haferkamp approaches the Deleuzian 'conception of concepts' as a useful philosophical aid for approaching ecological problems. For this purpose, she focuses on the cluster of Deleuzian concepts which, by virtue of their dynamic interrelatedness, provide appropriate tools for dealing with ecological complexity: the *concept*, the *plane of immanence* and the *event*. Throughout, Haferkamp regards the philosophical concept as 'the third party' in the continuous process of intermediation between philosophical categories themselves as well as between different disciplines.

In his essay on "The Rhizomatics of Domination: From Darwin to Biotechnology," Michael Mikulak explores the complicated ways in which kinship imaginaries are (trans)formed by competing discourses. He begins by interrogating the often ludic tone surrounding the rhizome as an alternative model for kinship and politics. While many theorists have taken Deleuze and Guattari's call to strangle "the roots of the infamous tree," Mikulak examines the bioscientific origin stories and the vectors of biopower that align themselves along these convoluted narrative transversals. More specifically, his paper is about trees, roots and rhizomes, and how origins, subjectivity, kinship, unity and diversity, and the relationship between humans and nature are configured, refigured, shaped, and shattered by the competing, although not antithetical discourses of rhizomatics and arborescence. Drawing on Deleuze and Guattari, Darwin, Haraway, Heimplreich, and a range of ecocriticism, Mikulak interrogate how the radically open concept of subjectivity in flux characteristic of ecological models of rhizomatic kinship, transforms the political vectors of the various kinship imaginaries that tie us together.

Mikulak rereads Darwin's *The Origin of Species* in order to show how an arborescent logic was forced upon Darwin by colonialist and racist state science. This vulnerability is present in the kinship imaginaries surrounding rhizomatic theory, and in the same ways that evolution was used to justify competition, colonialism, and capitalistic accumulation, despite clear examples refuting these positions within the text, the rhizome as a model of kinship is being usurped by the age of biotechnology. Mikulak is thus cautious in celebrating the liberatory potential of the rhizome and ecological thinking, and instead, uses Darwin to produce a careful and historic contextualization that can reveal the ways in which regulatory science and corporate interests are usurping the liberated mental ecologies of rhizomatic theory. He carefully looks at examples where discourses of nature, culture, ownership and species transform each other

in the discovery of Archaea, a group of marine microbes that live in thermal vents at the bottom of the ocean, and who transfer genes laterally, between individuals, as well as vertically, between generations. These microbes have shattered many conceptions of evolution and origins because they disrupt Darwin's "natural classifications" and the link between genealogy and taxonomy. They are truly rhizomatic creatures, both materially, and discursively, and are providing biotechnology companies with a justification for genetic engineering and a new means, through new vectors of gene transfer, to improve the techniques of genetic modification. By examining the way Archaea are being utilized by corporate science, Mikulak warns that rhizomatic theory is just as capable of leading to biopolitical regimentation and imperialist rhizomatics as it is to healthy, ecological assemblages.

From his first published essay on the constitution of the subject in empirical philosophy through his polemical critique of psychoanalysis with Félix Guattari to his final work on immanence and life, Gilles Deleuze's philosophy aimed at disrupting the traditional Western philosophical category of the subject. At every turn of this project, from the subject-as-habitus via Hume to the biopsychic of the *Anti-Oedipus* to *A LIFE* of immanence, the goal was to move thought away from the centered, human ground of subjectivity to "fields" that extend beyond the singularly human. What distinguishes Deleuze's work in this exploration of the trans-human is his method, particularly in what it borrows from a Spinozist practice of ethology or study of capacities. For Deleuze, the crucial question in exploring a subject's constitution is not "what *is* a subject?" but "what *can* a subject do?" since the shift away from a subject's being to its capacities or powers moves one away from questions of essences and towards those of relations or compositions with other powers.

While this particular shift in method is not particularly new it is important to grasp the implications such a method has for the practice of thought and of life itself, for such are the stakes of Deleuze's re-thinking of subjectivity. How can one experience the radical shift in thought that such thinking requires?

This collection of essays is devoted to the environment and ecology, but Antony Larson's essay "How to Become a Reader: The Concept of American Literature and Deleuze" seeks to show that one of the consequences of this radical shift in thought is an extension or re-working of terms such as "environment" or "individual" to fields that escape simple

binary definitions of culture/nature. Literature as a concept (in Deleuze's terms) is an experiment in this shift in thought.

One of the places one might begin to look for answers to these questions is literature and one of the literatures in which this process is most visible and most livable is the literature of the Anglo-American tradition. It is important to understand Deleuze's designation of literature as Anglo-American in conceptual terms (which, in his philosophy is defined as a response to a particular set of problems) and see this concept of literature as responding to these particular questions concerning the practice of life in terms of capacities and Spinozist ethology.

Larson addresses this crucial question of how to become a reader through an encounter with perhaps one of the greatest classics of American literature, Nathaniel Hawthorne's *The Scarlet Letter*, so that one might experience the very literal shift in thought at stake. For it is in this masterpiece that two paths of reading and two paths of living open before the reader. On the one hand, one is dared into an interpretation in which the sign is mastered, like the text of nature in which it so often appears, so that a pre-existing judgment may be confirmed, mirroring the critical reading of the Puritan protagonists. On the other hand, signs are often not what they seem in this text, transmitting a curious and vital energy that upon closer examination escapes the pre-determined judgment of the reader and pushes her into a zone of indiscernibility that escapes definitive interpretation (a sensation that is often transmitted by Hawthorne's famous "bifurcating" style). The encounter with such a textual process has several consequences. First, moving through the two levels of reading, one discovers how the text is structured by different zones of intensity which then feed into a secondary and more important encounter between the reader and the text, opening one up to a larger textual process that goes beyond both reader and text. Finally, this larger process, in its nature unforeseeable and incalculable in advance, tends toward what Deleuze would call a "becoming-imperceptible" where the intensities of the reader and the text become something that is neither textual nor "human." That this should occur in a text that so fundamentally confronts the desire to master and read in nature the signs of man brings this study back full circle to the overt and radical attack on the human subject that is Deleuzian thought.

Jakob von Uexküll's biology strongly influenced Deleuze and Guattari's account of animal milieus in *A Thousand Plateaus*. In his essay "A Silent Dance: Eco-Political Compositions after Uexküll's Umwelt Biology," Tom Greaves explores the way in which the theory of "Nature as Music" is taken up and developed there, showing that although Uexküll

lays the groundwork for important insights in compositional ecology, he remains wedded to an account of harmony which needs to be called into question. This is partially achieved by Deleuze and Guattari's account of the composition of territories and the movement of deterritorialisation. Greaves argues that this account can be helpfully supplemented by attending to ecological phenomenology's concern with the "ontological value of species" and rethinking the concept of niche in terms of the marking of differences which are themselves subject to processes of "despeciation." The appreciation of these processes leads to a thinking of the "milieu of all milieus" or chaotic world, a necessity which marks an important point of conjunction between the very different philosophical projects of Martin Heidegger and Deleuze and Guattari. Finally, Greaves suggests that the distinction which Deleuze and Guattari draw between the intensive line of flight of fascism and the totalitarian State can be applied to ecological compositions, allowing us to gain more precise insight into the threat of "eco-fascism."

Deep Ecology is distinguished by three central commitments. The first is to the intrinsic value of nature, a kind of axiological antihumanism. This has always been bound up with a second central commitment, the metaphysical claim that human beings are nothing other than natural entities, i.e. a kind of metaphysical antihumanism. But both of these have traditionally also been connected to some kind of practice that transforms our consciousness of nature. In his probing of the alliance "Deleuze and Deep Ecology," Alistair Welchman investigates the relation between the first two of these commitments, and tries to show how the third is subordinate to the first two. The upshot is that metaphysically and axiologically antihumanist claims can certainly be sustained (and have been in several historically important philosophical systems) but that they do not necessarily generate the kind of valuations that deep ecologists want. Deleuze, as Welchman shows, is a case in point.

The transpersonal or transformative aspect of Deep Ecology is best interpreted as a species of *Ideologiekritik*: ideological processes have distorted our understanding of and relation to nature, and we must work to undo or reverse those processes. Welchman argues that the most theoretically sophisticated resources for this kind of critique come from philosophical phenomenology. But phenomenology is officially neutral about metaphysical issues and in fact conceptually hostile to any kind of metaphysical naturalism. Such theoretically sophisticated views offer a way of reconceptualising nature that is important and significant, but often in the context of a sustained and even deepened understanding of the

metaphysical distinctness of human beings. Metaphysical naturalism on the other hand, can make use of ideological critique of the concept of nature, but does so in the service of a changed understanding not only of nature, but also of human beings as natural products. In other words, it is the first two commitments that are really conceptually distinctive of Deep Ecology; transformation is subordinated to them. What can be learned from the encounter is the importance of conceptual revision, and this applies not only to the concepts of the human person and nature, but also to the concept of valuation.

According to Welchman, there are three possible ways of thinking the relation between the axiological and metaphysically antihumanist commitments of Deep Ecology. They may be separate; axiological commitments may be 'projected' onto nature; or nature may in some sense be the source of valuations. Welchman rejects the first two as ultimately incompatible with naturalism and shows that Deleuze champions the third. But Deleuze's conception of the values posited in and by nature (quite distinct from the phenomenologically projective account of a weave of fact and value based on human interests) differs significantly from the valuation deep ecologists need. Welchman proposes a diagnosis of this difference: Deep Ecology is still rooted in an understanding the axiological contribution of metaphysical naturalism based and made explicit in Schopenhauer's morality of sympathy or co-feeling. But Deleuze sees this as having undergone a successful Nietzschean critique resulting in a valuative preference not for the interests of natural entities (as in Deep Ecology) but for the *interesting* as such (which he—along with Guattari—gives a quite technical definition for).

Edward Butler's essay "Hercules of the Surface: Deleuzean Humanism and Ecosophy" applies Deleuzean thought to the project of subverting the opposition between humanism and ecocentrism. The essay takes its title from the Hercules presented by Deleuze as the conceptual persona of Stoicism in *The Logic of Sense*, who "ascends or descends to the surface in every conceivable manner," who "brings back the hell-hound and the celestial hound, the serpent of hell and the serpent of the heavens ... in his dual battle against both depth and height" (132). Butler takes Luc Ferry's humanistic critique of Deep Ecology as his starting point. Even if critics such as Ferry are correct that the liberating aspects of the Enlightenment project were only thinkable *historically* as involving a negation of the natural order *as it was then conceived*, nevertheless, it is not necessary to reaffirm the conditions of the historical emergence of these ideas in order for the ideas themselves to continue to operate, unless no other origin can

be thought for them even in principle. It is easy, however, to imagine the liberatory potential of the Enlightenment having been released without being accompanied by a conception of the human as essentially "antinatural"—namely under a different conception of Nature. A humanism worthy of the name must speak to the genuine conditions under which humans may develop their potential; and this does not come about through opposing humanity to a Nature conceived as a static realm of reified essences, because it cuts off humans from what is liberatory in human nature and in nature itself relative to reified *cultural* essences and imprisoning traditions. Ferry underestimates the liberatory potential of naturalistic discourses past and present. To be cosmopolitan, to be nourished by difference, is not "antinatural" at all; it is vitality and maturity.

At the same time, however, Butler argues, an ecosophy which fails to locate humanity's best and worst potentials within the natural order fails as well, because it mystifies the relationship between humans and Nature and obscures human agency in the constitution of value. What is needed is not a lapsarian narrative about humanity's fall from natural grace, but a thoroughly naturalistic genealogy of morals. Furthermore, the fundamental ecosophic thesis of the intrinsic value of living beings and ecosystems loses its significance if individuals are dissolved in a totalizing conception of Nature such as is sometimes met with in the rhetoric of Deep Ecology. A Deleuzian ecosophy can contribute both to the defense of Deep Ecology from its critics, and to the internal critique and reform of Deep Ecology itself.

Butler proceeds to identify some key elements of a Deleuzian ecosophy. Deleuze's basic ethical principle, derived from his reading of Spinoza, is that "the good or strong individual is the one who exists so fully or so intensely that he has gained eternity in his lifetime" (*Practical Philosophy* 41). This fullness or intensity can, in turn, be measured by the criterion of the diversity of wills compossible with an essence, because death expresses the limitations of an essence. The more perfect essence is that in which the greater diversity of wills is compossible, individuation according to such an essence generating a plane of immanence with a greater internal complexity. Developing this calculus involves a distinction between a mere disintegration into atoms and a genuine *monadological* pluralism incorporating respect for the diversity of the *orders of reality*. *Human nature* is neither reified nor negated in this ecosophy, but represents a zone of contestation, just like the nature or essence of *every* living thing or natural system. The ecosophical concept of intrinsic value acquires its ethical force, not by positing a transcendent source for value,

but by recognizing an individuating striving in natural beings that is *at once* and *as such* the striving to constitute a plane of immanence whose intensive complexity, by expressing the maximal multiplicity of values, approximates the absolute velocity of thought. According to Deleuze, and with Spinoza: "No one knows ahead of time the affects one is capable of" (125). Existence is a test, as of chemical composition. If humanity, or a particular human, turns out not to be what it might have been, nevertheless something or someone else has that nature, that essence; hence the degree of imperfection of the world in which we live is expressed by the presence of ideals. This theory is explicated in relation to a thought-experiment about humanity and an imaginary alien race posed by Arne Naess in *Ecology, Community and Lifestyle* (1989). Butler's essay concludes with a brief exposition of the sense of this particular image of the deathless essence.

At the beginning of the 20th Century, Le Corbusier poses the question 'Can cities be improved by design?' prompting an era of architecture that divided the environment between natural and artificial. Consistent with traditional Western philosophy and science, modern architecture tended to equate the improvement of human condition with the harmonisation of the world's flow. Space, in this spirit of social design, was based on the idea of free movement and a desire to ease the body through it. The inherent Cartesianism within these disciplines presupposed an ocularcentric relationship between human body and environment as two different elements in communication: the perceiver and the perceived. The human body - as perceiver - assumes a central perspective in relation to the environment, while the latter - as perceived - is 'simply there before us'. However, contemporary examples of spatial regeneration in architecture and relational art are characterized by a shift from stable form to *abstract force*. No longer able to distinguish between the fuzzy and continuous generation of complexity between body, technology and environment, we need new theories and practices with which to conceive them together.

Eleni Ikoniadou's essay "Rhythm Ecology: The Topological Stretching of Nature," poses the question: If communication (between perceiver and perceived) is conceived at the level of sensory perception, then how do we account for body and environment beyond the limits of our own experience? Can we rethink them together from the standpoint of 'rhythmic topology' within one system of potentiality? Topology, according to Massumi and DeLanda, is the branch of mathematics concerned with spatial properties preserved under bicontinuous deformation (stretching without tearing or gluing). Considered topologically,

a body surpasses the restriction of essences (what it is) and enters the realm of assemblages (what it can do in its entanglements with other bodies). Away from the replacement of a visual perspective of space by a sonic one, this paper explores rhythm as a relational tension between body and milieu, a mode 'felt' rather than perceived. Rhythmic topology addresses the virtuality of unfinished and unnatural bodies to conceptualise an ecological becoming that stretches beyond our knowledge of it. It thus argues that more than a new philosophy for ecology, Deleuzian ontology is crucial for the re-conceptualisation of an altogether new nature.

Although Félix Guattari was personally active in Green politics and published several works about "ecosophy" and the complex transversal connections between "the three ecologies" of psyche, society, and natural environment, nevertheless he is neither recognized nor discussed among ecologists and also literary ecocritics, with very few exceptions to be noted. Erick Heroux counters the silence that has failed to respond to Guattari's challenging contributions—his essay on "Guattari's Triplex Discourses of Ecology" shows how his work borrows from an alternative tradition of theoretical biology: cybernetic systems and cognitive biology. Guattari often referred to scientists such as Gregory Bateson, Humberto Maturana, Francisco Varela, and Ilya Prigogine—all major figures in the early development of the contemporary science of complexity. By briefly introducing the key scientific concepts that Guattari borrows, we will more readily grasp how he also transformed and extended these concepts. For example, to comprehend what he means by "machinic assemblages" it is very helpful to know how Maturana and Varela described the biological cell as an "autopoietic machine" and how Bateson described "mind" or a cognition that was always already coextensive with simple living systems. Guattari further theorized this alternative tradition with and for his transdisciplinary and social concerns. The bulk of this essay describes the differences between the mainstream science of ecology, the alternative tradition coming out of theoretical biology, and finally Guattari's unique and extensive retheorization of these. His ecosophy of "chaosmosis" would greatly clarify and benefit contemporary political ecology, and also will most likely be of keen interest for the emerging subfield of "biosemiotics."

Deleuze and Guattari's philosophy in *A Thousand Plateaus* is first ecology before it is ethology or nomadology. The concepts of becoming-animal, the refrain, and the nomadic war-machine, are always already born

from a certain engagement with Nature's telluric space, its air, its wind, its landscape of flora and fauna, and its movement of waters. Any understanding of these concepts without taking account of the ecological grounding is an incomplete one. But one should not however expect an amicable relation between Nature and thought in *A Thousand Plateaus*. As Irving Goh, in his essay on "'Strange Ecology' in Deleuze|Guattari's *A Thousand Plateaus*" argues, there is a violent economy between Nature and philosophy there. Philosophy strikes out at Nature. But Nature never remains as a passive victim. In *A Thousand Plateaus*, it strikes back. Nature bears a violent force here. It is a movement of pure deterritorialization that sweeps up any grounded habitation [this understanding of Nature is certainly traceable to Bataille's ecology, where the life of the planet is endowed by the passage of a cosmic or solar line of luxurious energy expenditure]. And yet this "strange ecology" in *A Thousand Plateaus*, to use Deleuze's term in a dialogue with Claire Parnet, does not end in a nihilistic nothingness for either or both of these entities. In fact, through the combat between Nature and philosophy, each will realize that each equally needs the violence of the other not only to sustain itself but also to carry it to another level, to engender a creative line within itself.

James Wiltgen's "Abstract Composition: The Problem of Thought-Art in the 4th Machinic Age," begins with a brief look at the Large Hadron Collider as it seeks to crash subatomic particles into each other at near the speed of light, and the current (anti-) cosmological argument that the universe has increased its rate of expansion dramatically, or the latest return of the Second Law of Thermodynamics. What do these forces tell us about the current relations between science, culture, and the world? Turning to Deleuze and Guattari, the question becomes how to actualize various possible assemblages, and ways in which strata can be thought in light of the conceptualization of what exists as the 'infinitely folded up infinite.' After a brief glance at Spinoza, Nietzsche and Bergson, Wiltgen focuses on issues of abstract composition: how can composition be engaged, how to pursue abstract vital lines, and the typology of the shift from the mode of production to the mode of connection. What lies beyond the human and how can nonhumans, things, animals, monsters, phantasms, actants, and other forms of random strata be integrated in different manners. Will it be possible to, as Nietzsche posed, "let the earth become lightness"?

In a second part, Wiltgen's essay examines the work of Bruno Latour, first with *We Have Never Been Modern* but more importantly *The Politics*

of Nature. The provocative argument in the latter seeks to jettison the concept Nature and replace it with a praxis of the 'politics of ecology.' On what does Latour base his argument, how does this translate into a set of practices, and what connections does it have with D & G, in particular the material cited above? In other words, how to understand the call for the 'progressive composition of a common world.' Issues of materiality, flows and the regime of computation are examined via the work of N. Katherine Hayles; and the importance of sexual bifurcation and the relation between matter and life in the work of Elizabeth Grosz. The pressing issue here concerns the ways in which the world, the earth and the cosmos can be analyzed as most productive for affirmative forms of change.

In the last section, Wiltgen develops a view of current artists' interventions into these areas: two points of entry—the MOMA exhibit entitled *Design and the Elastic Mind*, with its 'bioengineered crossbreeds, temperamental robots, and spermatozoa imprinted with secret texts' (Ourousoff); and the work of a series of bioartists, including Eduardo Kac, and the 'semi-living art' created by Oron Catts and Ionat Zurr. How have boundaries between the biological and the technical become fuzzy, blurred and eroded? What ways will oocyte fusion, haploidization, and human cloning alter our thinking, our politics and the means of addressing the staggering issues of sustainable modes of living? In what ways can the planet move toward what Bataille called a 'general economy'?

Animals centrally appear in Gilles Deleuze and Felix Guattari's *A Thousand Plateaus* (1980), as the impossible limit and the figurative possibility of the Body without Organs (BwO), the anti-organism that resists particular assemblage, significance and subjectification. Accordingly, animals become living metaphors for the multiplicity of human desire, or the becoming-animal of humans. In her essay "Deleuze and Guattari: The Animal Question," Katherine Young explores the central concern of how we can negotiate the virtual (animal bodies) and the actual (becoming-animal) in Deleuze and Guattari with a project of animal advocacy. However, instead of laying the framework for Deleuzean animal politics, Young's essay critically analyzes Deleuze and Guattari's underlying anthropocentric implications. In other words, before we can strike an uneasy alliance between Deleuze and Guattari and contemporary political projects like animal rights, we must take them to their (Deleuzean) limits with regard to the animal question.

Vincent J. Guihan also focuses on 'the Animal Question,' though from a perspective different from Young's. His essay "Becoming Animal: The

Animal as a Discursive Figure in and Beyond *A Thousand Plateaus*" addresses the question of "becoming animal" as a relatively small but very important part of *A Thousand Plateaus*. Becoming animal functions in a number of key ways, but to summarize these, it encourages the adoption and practice of a more dialogic relationship with both animals and nature with as an Other rather than merely instruments to be used. First, it draws out, like any kind of anthropomorphism (intentionally or not), the prospect that species difference is often a culturally mediated and/or socially constructed phenomena like race, gender or other elements of human subjectivity. In that sense, becoming animal provides ecocritical thinkers with a tool to trouble one of the longest standing and least-interrogated bases for domination in Western thought and one of the major justifications for environmentally unsustainable living: speciesism—the view that human beings, as human beings, have greater inherent moral worth than other species and that they in particular and the environment as a whole exist for human use. Second, it provides us with a basis to at least trouble if not actually think or work outside of the human/animal/nature dichotomies that a number of ethicists have insisted that we must begin to trouble. Becoming animal provides us with a way of comprehending ourselves as human beings within a broader framework of environmental interdependency — not just in terms of our political will and rational reflection or in terms of how to we might manage and police nature better as a superspecies — but as a ways of reimagining ourselves as beings dependent on the ecosystem (a condition that, although obviously true, has been denied to the point of becoming debatable, as the debate around global warming currently evinces). Finally, becoming animal in particular and the rhizomatic in general provides us with a way to think outside of biopower, to use Foucault's term, as the primary way of ordering the relationship between human and non-human animals and the environment.

Plants, animals, and the milieu of life have all been special themes in art for many thousands of years, extending even into the Paleolithic. Recently, however, artists have begun to assume a more assertive and radical position in this entangled history of life, nature and art. For the past ten years, a few artists have been presenting sophisticated genetic and biological experiments as works of art. Some works are commissioned, while others are the product of research and production undertaken by the artists themselves. In any case, as Paul Lewis argues in his essay "The Edge Effect: Art, Science, and Ecology in a Deleuzian Century," the living organism, plant and animal tissue, the cell, the genome—all these have entered *as raw materials* into the practice of art.

Laura Cinti has exhibited genetically altered cactus plants that allegedly express human hair. Oron Catts and the Tissue Culture & Art Project have created sculptures of semi-living tissue, including several pairs of pig wings and a ¼ scale human ear. Eduardo Kac failed to produce GFP K-9, the green fluorescent dog he envisioned in 1998, but he went on to exhibit a similarly engineered transgenic rabbit two years later, borrowing from a marine jellyfish genetic material that had itself been altered in the laboratory. These gratuitous creatures occupy an uncanny place in the zoological world. Their extravagance as artworks derives from the fact that they are not representations of monstrous animals—as one sees in the works of Bosch, for example—but are in fact living constituents of the biotic community. They are alive.

Whatever impact these experiments may have within art criticism, their full cultural significance is much greater still. For the "anomalous" construction of artificial life forms in art is but a cultural appropriation of "normal" practices in biomedicine, molecular biology, and agriculture. Life *as an artifact* first began to proliferate in the landless ecosystem of the scientific laboratory. Reflecting the artifice of its life forms, the modern biological laboratory is itself a heterogeneous ecology shaped by venture capitalists, public health initiatives, patent lawyers, government budgets, postcolonial political antagonisms, academic bureaucracies, and personal obsessions. Now artists have directly asserted some cultural rights over the play of forces that constitute life, and their works have therefore extended the already complex political ecology of the laboratory in an unexpected direction.

The future of these experiments in art will undoubtedly deepen our ongoing historical confrontation with the most fundamental concepts of ecology. The important questions, according to Lewis—such as What is an organism? What is a niche or a habitat? What is natural? What is a nonhuman environment—appear now, more than ever, to be embedded in a deterritorialized struggle among social forces over a biological domain that has itself become deterritorialized. This is a schizoid collision of sociopolitical and ontological dimensions, a collision in which the natural and the artificial exist not as a duality but as a multiplicity. In many important respects, the works of Gilles Deleuze and Felix Guattari address this "flow of disjunctive forces" between the natural and the artificial. Their profound and sometimes outrageous attempt to sharpen the edge of process philosophy into specific biological speculations and metaphors has left a rich, but by no means perfect, language for new conceptual problems in the science and art of ecology. The recent emergence of genetic and biological experimentation in art, itself an uneasy alliance, provides an

irresistible opportunity to test the uneasy alliance between Deleuze, Guattari, and the future of ecology.

One of the current development of traditional environmentalist thought tends toward the inclusion of an "ecology of desire" (Heller) and "mental ecology" (Guattari) under the concerted influence of the 'ethical turn' and the 'turn to affect' in the humanities and social sciences. Since it has not been shown whether such new paradigms have found an echo in parallel literary trends or can be used as a heuristic for literary criticism, it is the purpose of this essay to take a first step in that direction.

Annie Dillard's novel *The Maytrees* marks a perspective shift from the life of nature described in Dillard's earlier eco-theological writings—such as the Pulitzer Prize-winning *Pilgrim at Tinker Creek*, 1974—to the life of the mind best showcased in this untypical narrative about a marriage and family union that does not follow the prescribed norms of moral convention. Dillard's engagement with the crisis of romantic life and its 'ecological' resolution, Georgiana Banita argues, is in keeping with Félix Guattari's transition from a natural to a personal ecosophy, as reflected in the gradual evolution of this concept in his work. While it shares with traditional ecology a concern for biological species and the biosphere, ecosophy also acknowledges that 'incorporeal species' and 'mental ecology' are equally endangered and in crisis. Banita's reading of *The Maytrees* in her essay "The Ecology of Love: Reading Annie Dillard with Félix Guattari" seizes opportunities offered by ecocriticism and ecosophy to make good on literature's ethical investment and reaffirm its social responsibility. Banita reveals how the novel builds on its explicit environmental premises to develop an ecology of love relations and their impact on the characters' awareness of themselves, their natural and mental environment, as well as their complex rapport with time, both interior and exterior, subjective and concrete, psychological and narratological. In doing so, she aligns herself with Félix Guattari's tripartite ecological approach as it is espoused in his essay *The Three Ecologies*, where he proposes a shift from a purely technocratic perspective in ecological action toward an ethico-political articulation comprising three ecological registers: the environment, social relations, and human subjectivity (28). Dillard's novel, as Banita shows, is a hybrid illustration of Guattari's *social ecosophy*—which consists in "developing specific practices that will modify and reinvent the ways in which we live as couples or in the family" (34)—and his *mental ecosophy*, leading us "to reinvent the relation of the subject to the body, to phantasm, to the passage of time, to the 'mysteries' of life and death" (35).

In his essay "c. 1315 - 1640: Why Europe? Why not China? Contingency, Ecology and World-History," Jorge Camacho follows up on Deleuze and Guattari's marginal but recurrent concern with the problem of finding a historical explanation for the development of capitalism in Europe vis-à-vis its non-development in China. Its relevance is two-fold.

On the one hand, this problem—and the way it was treated in historical research between Marx or Dobb and Braudel or Chaunu—serves Deleuze and Guattari as a concrete example of a first principle that allows them to revisit and reframe the old topic of Universal History. Such principle, which they enigmatically relate to Marx's thought, entails that history ought to be conceived as the work of pure *contingency*. Implicit here is, of course, a particular reading and critique of a German tradition (perhaps Kant or Herder, but certainly Hegel) that stressed the role of necessity, rationality and teleology. For Deleuze and Guattari, the historical course in general and, in particular, the sequence leading to the emergence of capitalism, is a concatenation of contingent events: it could have happened differently, elsewhere, in another moment in history or not happened at all. Moreover, their universal history is *retrospective* from the point of view of capitalism. For them, capitalism is a potential that has haunted all forms of society and it is from this virtual position that it has shaped—negatively, as a nightmare to be warded-off—all the social machines that have emerged in this planet. This being so, what is perplexing for them is nothing but precisely its *singularity*, the fact that it fully developed only once and in 'one place,' thus Camacho asks with them: why in Europe? Why not in China?

On the other hand, the problem is relevant in the context of this collection because it prompts Deleuze and Guattari to invoke ecological determinations for the course of world history. In the rather sweeping and marginal explanation proposed in the *Treatise on Nomadology*, they follow *Annales*-school historians like Braudel in locating the first 'deep cause' in the rather different ecological geographies of Europe and China, and the concomitant agro-technological infrastructures associated with wheat and rice cultivation. Arguably, beyond any form of determinism, Deleuze and Guattari's interest for such *geohistorical* explanation is precisely the role it grants to concrete contingency in detriment of abstract rationality.

In this way, the objective of Camacho's essay is to revisit and disentangle this problem drawing from historical research that has put an emphasis on its ecological dimension. Most importantly, traveling along these lines it will be possible to extricate the fundamentally ecological

character of Deleuze and Guattari's philosophy; in particular, their conception of social formations as *heterogeneous* assemblages composed and shaped by much more than just people.

The body of animals, more specifically insects, are media in their own kind. For Jussi Parikka, this means expanding the familiar notions of "media" towards a Deleuzian framework where the term resonates with an ecological understanding of bodies. Bodies are vibrations and foldings with their environments, a theme that was developed in ethological research and then adopted to the philosophy of Deleuze and Guattari. Parikka's essay "Insect Technics: Intensities of Animal Bodies" shows how this theme is useful in a reconceptualization of media as an environment of interactions, translations and foldings between heterogeneous bodies. In this context, animal bodies mediate and contract not only the rhythms of nature, but are mediated as part of the construction of modern media as well, as conceptual figures but also through the measures of biopower inherent for instance in physiological research.

By excavating a certain archaeology of Deleuze's ideas, especially Bergson's notions regarding "insects technics" as elaborated recently by Elizabeth Grosz, Parikka attempts to think through some of the consequences of what a more environmental, ecological and biophilosophical understanding of "media" could entail. In this context, media is considered somewhat parallel to a Deleuzian understanding of a body: it is a force field, a potentiality, an intersection point where forces of the cosmos contract to form certain potentials for affects and percepts. Thus, as Rosi Braidotti explains, the "Deleuzian body is in fact an ecological unit." Bodies/media work only through relatedness where "this environmentally-bound intensive subject is a collective entity; it is an embodied, affective and intelligent entity that captures, processes and transforms energies and forces."

In *What is Philosophy?*, Deleuze and Guattari explain how the world contracts different vibrations and how different natural entities act as condensations of the cosmos. The way a plant forms and senses itself is through contracting light, salts, carbon. Through this contracting or folding "it fills itself with colors and odors that in each case qualify its variety, its composition: it is sensation itself." Brains are not found only in the heads of humans and animals, but microbrains inhabit the inorganic world as well. The world *is* media, in a manner of sensation and contracting, even though Deleuze and Guattari constantly avoided using that specific term as for them it applies only to mass media of communications. Still, it is possible to continue from their philosophy of cosmic vibrations towards

directions of a natural philosophy of media where the term starts to encompass the recording of time in rocks, the capacities of transmission in plants and animals, the weird sensations for example in insects that perceive not only through eyes and ears, but through chemicals as well.

In fact, recent years of technological innovation have embraced exactly insects and like as perfect models for media design. In the 1980s, the cyborg became a pre-eminent symbol of the late-modern conflation of biology and technology. This all too familiar figure was, however, always weighed down by a degree of anthropomorphic baggage, largely due to the widely distributed idea of Man and his prosthesis being the characteristic mode of conjoining biology and technology. Yet, since early cybernetics, a panorama of other biological examples was also discussed in a technological context, from viruses to flies and rats to insects. Indeed, at the same time as the man-machine boom was approaching its peak years, other ideas of non-human models of organization and perception were emerging both in media design and consequently in media theory as well. In this context, the epigraph above from *A Thousand Plateaus* [and Parikka's reading of it] becomes clear: insects, germs, bacteria and particles do not just denote biological categories of knowledge, but simultaneously can be seen as carriers of intensities and potentials. What defines an insect? Its structure, its evolutionary path, its position in the ecology of nature? Deleuze rejects in Bergson's vein any spatializing modes of understanding entities of nature and culture and opts for a more ethological brand of analysis: natural, cultural and technological bodies are defined by their potentials for interaction and enaction, the potentials of what they can do instead of what they are.

As Dianne Chisholm has rightly pointed out, the *geo* in Deleuze/Guattari's geophilosophy "evokes no singular (geological, biological, hydrological, thermodynamical, etc.) activity but, instead, emits a multiplicity of interconnecting 'geos'—geology, geography, geophysics, and geopolitics, and emerging composites such as geophysiology, geomicrobiology, ad infinitum" ... similar to the *eco* in the "generalized ecology," which, according to Guattari, consists of the interplay of at least "three ecological registers (the environment, social relations and human subjectivity)" (*Three Ecologies* 28). Likewise, one should rather not talk about *ecology*, but rather of different, but nevertheless interrelated *ecologies*. To show—and do—precisely this is what the present anthology is aiming at.

Notes

¹ *Deleuze and Feminist Theory*, eds. Ian Buchanan and Claire Colebrook, Edinburgh UP 2000, can be read as a fit answer to the first 'unlikely alliance' in Butler's claim.

² See however Chisholm, and Herzogenrath.

³ ... and what in the English translation curiously goes as "steady state" (41).

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GILLES DELEUZE AND NATURALISM: A CONVERGENCE WITH ECOLOGICAL THEORY AND POLITICS

PATRICK HAYDEN

Introduction

In this paper, I examine the naturalistic and ecological orientation of Gilles Deleuze, the contemporary French philosopher who is best known as one of the leading voices of poststructuralism. The term *naturalism* is rarely, if ever, encountered in the writings of poststructuralist, and even then usually appears only as an object of hostile interest. The primary reason for this distain is that naturalism is taken as a straightforward equivalent to essentialism, understood as referring to predetermined orders of 'natures' or invariant essences.¹ However, Deleuze proves to be a significant exception to this general attitude toward naturalism. He not only incorporates discussions of naturalism within the contexts of his many analyses of historical figures, but he also develops a philosophical perspective that, at least implicitly, forwards a version of naturalism compatible with the critiques of essentialism and dualism addressed in his numerous publications. While Deleuze has not offered a systematic account of naturalism, one purpose of this paper is to draw together some of the threads of naturalism woven into Deleuze's texts in order to demonstrate how he goes about rethinking this topic.

Another purpose of this paper is practical. From his earliest works to his most recent collaborations with Félix Guattari, Deleuze insists that philosophy be conceived as a practice whose usefulness derives from the active creation of new and different ways of thinking and feeling.² Deleuze is ultimately concerned with the kinds of effects that philosophy is able to produce, insofar as these effects encourage the creation of new life-affirmative values and sensibilities. It is my contention that Deleuze promotes a type of naturalism that highlights the diverse interconnections between human and nonhuman modes of life, in such a way as to provide

some overlooked philosophical resources for integrating ethical and political considerations with ecological concerns, while resisting the reductive temptation to turn nature into a static metaphysical foundation. In the end, Deleuze's view of philosophy as practical implies a commitment to, among other things, a strong environmentalist stance. With that in mind, I want to provisionally explore some of the ways Deleuze's naturalism relates to ecopolitical theory. Undoubtedly, Deleuze has yet to be recognized as a potential contributor to ecological discourse. One of my aims here, however, is to introduce this possibility for further discussion.

One of the difficulties with discussing naturalism in the context of Deleuze's work is that naturalism has been so variously defined and employed throughout the history of philosophy that it is impossible to offer a single definition of the term. Some have understood naturalism to be a view that excludes any reference to supernatural or transcendent principles, beings, or entities, with possible consequences ranging from the belief that the world is explicable only in scientifically verifiable terms, to the assertion of some form of humanism or secularism. Others contend that naturalism is meant to indicate the continuity or affinity of the human and nonhuman, and stress that human behaviour and human institutions have their basis in natural phenomena such that here is no exclusive opposition between nature and society. Although there are many possible versions of naturalism with differing points of emphasis ranging from the ontological to the epistemological and the methodological, I believe that Deleuze's take on naturalism can be seen as having the most affinity with contemporary strains of American naturalism, born from the dual influences of pragmatism and empiricism.³ While it is impossible to offer here a discussion of naturalism in twentieth-century American thought, what is relevant for my purpose is to note that American naturalism, influenced by such thinkers as Aristotle, Spinoza, and Darwin, argues that naturalism can be characterized as a perspective that seeks to eliminate the dualism and transcendentalism of traditional metaphysics, in favour of the view that humans and the cultures belong within a larger natural reality that cannot be overridden by any extra-natural essence.⁴ In other words, this position denies that there is an independent supernatural realm having ontological priority over whatever comes into being.

What I now examine is how this point of view is expressed in Deleuze's own writings. I do so in several steps. In section two, I explore a history of philosophical naturalism found in Deleuze's works of Lucretius and Spinoza. Deleuze lays constant stress on human interaction with the larger natural world, which allows him to conceive of naturalism as an