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FCJ-121 Transversalising the Ecological Turn: Four Components of Felix Guattari's Ecosophical Perspective



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Abstract: Many humanities scholars are working to transform their disciplines in response to new conditions and problems emerging in the twenty-first century. Arguably, the most important forces affecting contemporary global culture are the growing awareness of the ecological crisis and the proliferation of digital media. This essay endeavors to

Felix Guattari's "unfinished" concept of ecosophy into a theoretical framework for constructing productive syntheses between the ecological and the digital. In general, the essay first articulates ecosophical models of individual and collective subjectivity and argues that the best way to sustain ecosophical identity experience is to invent "digital media" practices, which harness the networked infrastructure of digital media such as social media. The essay also discusses specific pedagogical engagements with the technology that effectively maximise the capacity to affect and be affected by immanent forces in the world. In addition, the Guattarian rethinking of the ecological turn concurrently challenges the philosophy of the pedagogy of Nature appreciation that has characterised the eco-humanities landscape since the 1970s. The essay's conclusions gesture toward a transversal digital humanities, which would be rhizomatically rooted in Guattari's preference for auto-poiesis and becoming-other (via new media), rather than a static allegiance to the ideals of "realisation" postulated by the deep ecology movement.

Over the past decade, the humanities disciplines have played host to an explosion of ecologically themed transformations, which continue to open up new (sub)fields for research and teaching. The development of the ecological turn in English studies (conceived broadly to house the study of literature, composition, film, and new media) resonates with the general evolution of the eco-humanities; indeed, English departments have led this movement in many respects. A survey of English's recent appropriation of ecological ideas (and their failings) establishes a point of departure for rethinking digital humanities. Ecocriticism, with its reputable journals and popular conferences, has become the most institutionalised of English's eco-fields, while more pointed approaches continue to gather loosely around terms such as green cultural studies, ecofeminism, ecocomposition, and ecomedia studies.^[1] At the turn of this century, much of the work in ecocriticism was devoted to 'naming the most important works in the field and elaborating the reasons why they matter more than others' (McNamee, 1997: 14). Contemporary leaders in ecocriticism continue this "green" canon-building project with pronouncements similar to Libby Robin's 2008 declaration, 'We need a literature that enhances understanding of relations between people and nature, of how we notice

personally, and how such global changes affect places we know intimately' (Robi 292). The growth of ecocriticism, however, has attracted an increasing number of attacks, the most significant of which have been waged by literary theorists who, their objections, share the ecocritical desire to respond to ongoing ecological crises. In particular, these theorists assail ecocriticism for its reluctance to engage with issues by contemporary theory. [2] Timothy Morton goes as far as saying that ecocriticism 'consciously blocks its ears to all intellectual developments of the last thirty years' (Morton, 2007: 20). And none of the leading books associated with ecocriticism (not even the famous "ecology" by Dana Phillip or Timothy Morton) seem interested at all in the work of Gilles Deleuze and Felix Guattari. That the eco-humanities generally shares this gap in knowledge seems a bit bizarre, especially given the explicit ecological focus in Guattari's later writings and Deleuze's claim in the late 1980s that he and Guattari wanted to write a (last) book on the philosophy of Nature. We should wonder now, with great pertinence, where Deleuze and Guattari's philosophy would lead the ecological turn, which, along with the digital turn, promises to be a formative influence for humanities disciplines in the twenty-first century.

If there is a unifying theory that connects most ecological approaches across the humanities disciplines, certainly that theory is Arne Naess's widespread notion of ecology or "ecosophy". As Gary Genosko (2009: 86) points out, Guattari's writing on ecosophy never refers to Naess and his development of the term. That said, certain statements by Guattari throughout *The Three Ecologies* (e.g., 'Ecology must stop being associated with the image of a small nature-loving minority...') may arguably function as indirect references to, if not critiques of, Naess's project (Guattari, 2008: 35). At a fundamental level, the mission of Naess's ecosophy is to expand the sphere of identification in which people identify. He believes that 'identification elicits intense empathy' and that humans remain indifferent to that which they take to be utterly different than themselves (Naess, 1995: 15). To support this position, Naess shares a personal anecdote about a flea that suddenly landed in a sample of acid chemicals, which Naess was studying under a microscope. He claims, 'If I was alienated from the flea, not seeing intuitively anything resembling myself, the [flea's] death struggle would have left me indifferent' (Naess, 1995: 15).

15). This anecdote, a vital illustration of Naess's thought, brings us to the most important difference between his ecosophy and the ecosophy of Felix Guattari. Naess calls for the expansion of the self via identification ("Self-realisation"), whereas Guattari (and I) valorise autopoietic processes that perform a dissolution of the self via disjunction ("becoming-other"). In other words—in a Guattarian reworking of the flea anecdote—I do not look for elements of the flea that remind me of myself; rather, I would receive the flea's alterity and encounter aspects of the flea that are completely different from myself, as to "become-flea": to introduce the flea's manner of existence into the way I think and live. [3] Initially, the difference between Naess's identification and Guattari's auto-poiesis may seem trivial. This minor difference, however, actually lays out two divergent, conflicting, paths for diagramming the production of subjectivity. 'Guattari's concept of Genosko, 'is not self-realization through widening of a pre-given self, but process of singularization that resist the frames of reference imposed by an identity' (Genosko, 87). Consequently, an eco-humanities inspired by Guattari's theory of ecology would be very different than the familiar Naessian project of Nature appreciation. A living relation to Naess, ecocriticism typically invokes ecology as a strictly environmentalist discourse. This position tends to prioritise the thematic study of literary representations of Nature, often espousing, at the very least, a desire to distance one's self from technological advancements and other complexities of modern urban life.

On the other hand, Guattari's ecosophical perspective promises to remotivate the ecological turn in the humanities towards radical transformations in the production of subjectivity and concepts that carry with them the potential to sustain a more transversalised conception of identity. [4] Janell Watson summarises the quintessential thrust of transversality against the tradition of normative models of the human psyche:

Familiar topologies such as the semiotic triangle, the conscious-preconscious-unconscious, the ego-id-superego and the Oedipal triangle must be expanded, extended, and opened up. Connections between them must be retraced. The borders and boundaries must be effaced and erased, or at least made more permeable. Above all, these expanded, redrawn and reconnected topographies must be in motion...

Transversality, as can be surmised Watson's insightful work on Guattari, moves hand in glove with the activity of metamodeling. Models such as the Oedipal triangle purport to be a representational, standardised map of the psyche designed for the clinical evaluation and diagnosis of individual patients. [5]Metamodels, on the other hand, adopt a more open and constructivist stance towards modeling; here the ultimate aim is singularity rather than standardisation, and this entails appropriation from a multitude of models in order to avoid being "stuck" within the entropy of a dominant model (Watson, 2008). As Guattari's schizoanalysis, transversal thinking 'does not choose one modelisation to the exclusion of another'; rather, transversality is about creating lines of flight among various models, 'making them...operative within modified assemblages, more open, more process-oriented, more deterritorialised' (Guattari, 1995: 61). As such, transversality is a radically ecologic in that it pushes us to constantly (re)articulate things at the relational level of their interactions. With Guattari, then, we are *not* enlarging the selfhood *model*—we are developing the *metamodels* and practices of emergent subjectivities. Inspired by Deleuze and Guattari instead of Naess, we would become less interested in the representational paradigms of nineteenth century realism (which are often celebrated by leading ecocritics) and more interested in modernist and contemporary aesthetics of collage and montage; the acts of aesthetic invention would become as important, if not more important, than the pseudoscientific methods of literary hermeneutics.

Though Naess coined the term "ecosophy", he does not think through the semiotic implications of the word as fully as Guattari does. Ecosophy is not the same thing as ecophilosophy; it is not simply the redirection of the philosophical tradition towards ecological concerns. To think ecosophically is to rethink philosophy in our contemporary moment defined by the convergence of nature and culture, ecological crises, globalisation, and the Internet. Born of his transversal conception of subjectivity, Guattari's ecosophical perspective suggests for (eco)humanities scholars a unique constellation of concepts adequate to these emergent situations; it offers an alternative to the standard "natural science" approach by which critics apply old ideas to the same type of texts, only with the spirit of environmentalism. By analogy, then, the proper aim of ecosophy (and

properly transversal eco-humanities) is not to produce a more energy-efficient light bulb or a hybrid car, but to reconfigure subjectivity and to remake academic and/or social life altogether. While scientists and social scientists rightfully pursue advancements in technology and debate environmental policy issues, humanities scholars should use their disciplines to further our understanding of ecological problems in ways that are unavailable to the dominant technocratic perspective. Guattari's ecosophy suggests that humanities scholars should first concern themselves with *ontological advancements*. Thus, in addition to green buildings, hybrid vehicles, environmental legislation, etc., we need to rethink traditional notions of selfhood and, at the same time, invent practices designed to facilitate an ontology consummate to contemporary ecological concerns, as well as the emergent relational modes proliferating with the expansion of global capitalism and digital media. The profound importance to these latter issues is Guattari's notion of the "post-media ecology," an ecosophical vision of the potentialities afforded by emergent media technologies that I will expound upon later in this essay.

While much work in ecocriticism tends to avoid poststructuralist theory in favor of a more traditional ecology, leading Guattari scholars have begun to survey the ecological implications of the philosopher's notoriously complicated writings. Readers new to Guattari should be cognizant of three basic ways in which the tenets of his ecosophy conflict with more popular appropriations of ecology. First, affirming his belief in the inseparability of nature and culture, Guattari contends throughout his later writings that what we call the ecological crisis is not simply an environmental disaster, and that ecology is not limited to the natural environment. For Guattari, 'The ecological crisis can be traced to a more general crisis of the social, political and existential', which 'involve[s] changes in production, ways of life, and axes of value' (Guattari, 1995: 119/134). Furthermore, Guattari differs from the more traditional leaders of ecocriticism who tended to work from the popular belief that ecological sustainability is simply an idealistic, utopian project committed to preserving Nature's pure, harmonious and delicate balance. In Guattari's radical ecology, the ecological point of view becomes a world as a dance between chaos and complexity—a multitude of productive syntagmas between nomadic parts that exist independent of any fixed structure or transcendent whole. There is no larger "natural" order, no transcendent grand scheme according

which beings manifest. The ecology of ecosophy is neither that of popular environmentalism nor environmental science. Whereas environmentalism (like Nietzsche) attempts to strengthen the bond between humans and the natural environment, and articulated as two discrete and relatively stable categories, Guattari's ecosophy re-relationship in terms of dynamic assemblages of enunciation without assigning human nature, or culture a fixed role or place in the production of subjectivity. In this way, one might think of ecosophy as performing a metamodeling with respect to environmental models such as the ecosystem. While the model of the ecosystem was first drawn by environmental scientists, a generalised ecology extends relational modes of thinking implied by this model across disciplinary boundaries with hopes to enrich the study of a number of paradigmatic problems—most notably the production of subjectivity in the case.

Moreover, in metamodeling environmental ecosystems, by bringing them into connection with mental and social ecologies, one can rethink the ethos of management and regulation that has pervaded the largely scientific discourse of environmental ecology. Indeed, the challenge of Guattari's ecosophy is not to regulate the forces of the world into some idealised, harmonious balance, but rather to engender institutional and ontological conditions that encourage people to encounter the world as a series of open and dynamic syntheses between partial objects (as opposed to regarding phenomena as objects in themselves, complete and isolatable). This challenge informs and is informed by Guattari in *The Three Ecologies* and *Chaosmosis* where Guattari discusses nascent subjectivity machines (see below). Guattari's view of ecology is especially unique in that he is working from an "ethico-aesthetic paradigm" rather than from scientific or pseudo-scientific paradigms. For Guattari, ethico-aesthetic paradigms do not necessarily deal with nature as traditionally conceive it, but seek to incorporate an aesthetic order—an artist's 'world'—into the existential territories of everyday life, within and beyond the studio or the museum. [6] He insists that the decision to engage subjectivity on a scientific basis or an aesthetic basis carries important ethical implications; Guattari's course asserts that attempts to "scientifise" subjectivity lead to its reification, while aesthetic approaches mobilise subjectivity 'in its dimension of processual creativity'.

(Guattari, 1996: 198). To be clear, Guattari's turn towards ethico-aesthetic paradigm not constitute a rejection of science so much as a pointed critique of the 'use of models and general laws, at the expense of singularity and complexity' (Watson, 2010: 10). Ultimately, I will suggest that it is this autopoietic node of Guattari's ecosophy that powerfully distinguishes his approach to ecology.

Though recent scholarship on Guattari is quick to mention his notion of ecosophy, few of these books and essays contain elaborations of Guattari's ecosophy that attend to the larger ensemble of concepts quintessential to his philosophical outlook. Guattari and Watson stand out of course as two scholars who have taken immense steps towards recognising the (potential) impact of Guattari's contributions on the contemporary ecology, subjectivity, and media. More typically, however, humanities scholars concerned with Guattari's engagement with ecology rarely venture beyond his most explicitly ecological book, *The Three Ecologies*, and are therefore likely to miss the transversal connections among the otherwise disparate domains of ecology, subjectivity, and media that he developed throughout his later writings. While it is accurate in some sense to summarise Guattari's ecosophy by mentioning his three interrelated ecologies (i.e., mental, social, and environmental), such summaries do not convey the full potential of Guattari's ecological perspective, which he seemed to regard as the crowning accomplishment of his philosophical career. To appreciate the theoretical weight of *The Three Ecologies*, one must explore the ways in which this short book intersects with Guattari's larger body of work. In what follows, I offer an exploration of ecosophy in the context of *The Three Ecologies* and Guattari's other writings such as *Chaosmosis* and selected essays from the *Guattari Reader*, as well as the collaborative works *Anti-Oedipus* and *What is Philosophy?*. Indeed, Guattari's ecosophy is a concept that, like all concepts, configures the 'constellation of an event yet to come' and 'renders components inseparable *with*' (Deleuze and Guattari, 1994: 19/33). But given its (unfinished) state at the time of his sudden death, ecosophy remains a concept whose components need to be rendered further. The four sections below strive to construct a "zone of neighborhood" or "zone of indiscernability" wherein these four components (i.e., nascent subjectivity, media, post-media, and autopoiesis) become seen as the vital constituents of ecosophy's

conceptual consistency. Only then can we mobilise ecosophy towards the invent event yet to come, the people yet to come, or at least, the eco-humanities yet to

Nascent Subjectivity

At the end of *The Three Ecologies*, Guattari claims that we must, in responding to ‘major crises of our era’, invent new practices that are conducive to what he calls ‘subjectivity’ (Guattari, 2008: 45). Of course, the project to resingularise subjectivity does not center upon the individual—Guattari prefers to speak of components of subjectivity rather than posit a “subject”—but it makes pragmatic sense to start the discussion at the molecular level and then move into molar dimensions, provided that one does not see this movement as a linear progression along what Guattari sometimes calls a ‘definitional schematic hierarchy’. We need to first of all to be concerned with the following questions: What exactly is nascent subjectivity? Why does Guattari place such a high premium on it? How would this nascent subjectivity put us in a better position to address contemporary ecological realities?

Like many of the concepts Deleuze and Guattari have developed, nascent subjectivity in *The Three Ecologies* is at once a rephrasing and a reworking of terms that appear throughout the two philosopher’s oeuvre. In fact, one of the best ways to comprehend Guattari’s difficult terminology is to trace the evolution of the names he ascribes to particular conceptual territories, always paying attention to how each change in wording accords with his overall line of thought. In this case, it will help to read *The Three Ecologies* in parallel with Guattari’s first collaboration with Deleuze, *Anti-Oedipus*, specifically the early passages in which they introduce ‘the residuum subject’. The notion of the residuum subject is a useful starting point for grasping the significance of Guattari’s theoretical move from the subject to components of subjectification, which is so vital to his later writings on ecosophy. Considered as an isolated phrase, ‘the residuum subject’ implies that the subject, or one’s subjectivity, is simply what remains or gets left over, in the sense of a residue. Thus begging the question: of what substances or processes is the subjectivity residue?

By Deleuze and Guattari's configuration, in contrast to the Cartesian *cogito*, an individual's thoughts do not constitute the full measure of his or her being. The subject is less the product of his or her own thought and more the *residue* of the social machinery in which he or she directly and indirectly participates, for the boundaries of "private" thought are drawn through the sociohistorical apparatus (an emergent assemblage of desiring-machines).

This subject itself is not at the center, which is occupied by the machine, but at the periphery, with no fixed identity, forever discentered, defined by the states through which it passes...the subject is born of each state in the series, is continually reborn out of the following state that determines him at a given moment, consuming and consummating all these states that cause him to be born and reborn (the live subject emerges first in relation to the subject who lives it).

(Deleuze and Guattari, 1983: 20)

By means of this passage, we understand why many of Guattari's later writings are devoted to locating what he calls 'existential refrains', a term that denotes the crucial and productive sites through which subjectivity is produced, negotiated, and learned. Far from conceiving of subjectivity as a pre-established individual phenomenon, Guattari contends that a 'plurality of modes of subjectivation' are always at work in the (de)composition of an existential territory (Guattari, 1996: 199). Existential refrains can emerge anywhere, but some of the key areas that Guattari emphasises include education, mass-media, the arts, sports, and the organisation of labor. Indeed, he does not oppose economic production to subjective or cultural production; the intersection of such refrains constitute complex existential territories that are ripe with transversal connections involving both material and semiotic work, civic and machinic flows, etc. (Guattari and Rolnik, 2008: 38). More specifically, refrains emerge 'when motifs are detached from the flux of components and acquire the ability to generate a process of positive self-reference' (Genosko, 2009: 2). Because of this detachability, refrains can be ripped from intimate moments of signification and in some cases become mapped over by repetitively drawn associations to 'the diversions of consumption'; for instance, through advertising a musical refrain (e.g. a few notes from a song) often becomes 'hijacked and affixed to automobile tires or boxes of breakfast cereal' (Genosko, 2009: 80).

The eco-logic of Guattari's argument in *The Three Ecologies* does not at all affix thinking to the idea of a normative "ecological subject". In fact, he wants to 'ward every means possible, the entropic rise of a dominant subjectivity' (Guattari, 2008: 23). Guattari (2008:23) clearly asserts that he is not concerned with 'creating an unequal ideology', which would outline a set criteria for being-ecological—an occasional theme in Naess's writing—and position himself as leader or guru. Instead, Guattari is much more interested in conveying the importance of generating a multitude of methods designed to inspire an ecosophical perspective on the production of subjectivity. From an ecological perspective, intensities precede both ideology and identity; one's work becomes productive when attention is paid to molecular, intensive qualities (e.g., the universal concepts, functions, precepts and affects elaborated in *What is Philosophy?*). [7] *Ecologies* clearly builds from the same image of thought sketched by the residue and incorporates Guattari's subsequent insights on refrain-intersection:

Vectors of subjectification do not necessarily pass through the individual, whose reality appears to be something like a 'terminal' for processes that involve human groups, socio-economic ensembles, data-processing machines, etc. Therefore, interiority establishes itself at the crossroads of multiple components, each relatively autonomous in relation to the other, and, if need be, in open conflict.
(Guattari, 2008: 25)

Here, Guattari specifies some of the obscurities of *Anti-Oedipus*; in particular, the image of the individual-as-residue is redrawn: the individual becomes a "terminal" where one's subjectivity is not only a *by-product* of forces operative in the three ecologies (mental, social, environmental); subjectivity is always already immersed in the flow of existential refrains or vectors. The individual can no longer be seen separately at the end of a line. To speak of an individual *subject*, natural as it seems, is to reinforce a reductive view of existence, which inhibits any actualisation of '[a] collective and individual subjectivity that completely exceeds the limits of individualization, stagnation, identificatory and will instead open itself up on all sides' (Guattari, 2008: 44). Nascent subjectivity is not an entity one can postulate once and for all; indeed, it is best described as a process whereby thinking emerges immanently in relation with the event, which it perpetuates.

strives to encounter in the manner of a rhizome.

Furthermore, Guattari's preference for immanent thought can be traced back to Deleuze's 1970 critique of consciousness as it has been represented by the transcendence-history of western philosophy. Deleuze writes, 'the conditions under which we know and are conscious of ourselves condemn us to have only inadequate ideas, ideas confused and mutilated, effects separated from their real causes' (Deleuze, 1988: 10). Deleuze constantly reminds us that our thought always occurs in the middle of things; that is to say, the outside to which thought connects has already begun and exists prior to our consciousness of it. Guattari's writing in the early 1990s addresses these illusions of consciousness in an era in which, despite growing awareness of environmental pollution, 'we fail to grasp the contradiction in the fact that the factories producing our soap are also polluting our habitat' (Ulmer, 2005: xxvi). Given the absolute immanence of nascent subjectivity, humanities scholars today should redirect the tradition of thinking the subject as a discrete element towards new projects that create concepts and design methods, in conjunction with new technologies, which expand the scope of subjectivity; in other words, increase our capacity to affect and be affected by immanent forces in the world.

The subject-as-cogito (i.e., the isolated individual personified by Descartes' "idiot") has become an inadequate foundation for thinking and acting in the context of twentieth-century developments, such as globalisation, ecological crises, and the proliferation of the digital medium. In order to comprehend global multitudes—and participate effectively in emergent political and rhetorical situations—future generations will need to be capable of experiencing themselves disjunctively, in the sense of an emergent and processual assemblage. In an article submitted to *Le Monde* just weeks before his death, Guattari writes of a desire to 'bring individuals out of themselves' via 'the invention of new collective assemblages', which, as he envisions already in the early 1990s, could be made more viable with the 'new possibilities of interaction' afforded by computer networks. For this reason, he believes that networked personal computing bears with it the potential for (but by no means guarantees) 'a real reactivation of a collective sensibility and intelligence' (Guattari, 1996: 263). And so, though we begin at the level of so-called

individual subjectivity, this is only the beginning of the issue because, for Guattari, the question of the individual is inextricably linked with trans-individual domains of flora, fauna, phyla, territories, and universes. [8] Existential refrains are laid out by collective machines which are themselves dialogically related to the available modes and technologies of their production.

Machines, Not Structures

Guattari stipulates that his ecosophical perspective is 'at once applied and theoretical, ethico-political and aesthetic' (Guattari, 2008: 44). Nowhere is this blend more evident than in his discussions of machines, which are informed by numerous disciplines from order cybernetics to modernist art, as well as concepts set forth by Lacan and Deleuze. Guattari uses the term "machine" to refer *at once* to actual and virtual properties. (Simply pointing to the technical appliances that the term often refers to in everyday conversation.) Machines are *actual* in that the word denotes existing institutions, structures, and practices, but machines also address the *virtual* possibilities of collectivity and function as a theoretical metamodel. In his assessment of the contemporary psychological landscape, Guattari (1995: 58) claims that 'individual and collective subjectivity lack modelization' and, further, that this lack explains the stasis of many social movements, including environmentalism. For this reason, Guattari insists that the development of alternative diagrams for the production of subjectivity (in contrast to Oedipal modelization, for example) must become 'an immense site' of theoretical work and lead to 'the invention of new practices' (Guattari, 1995: 58).

Without the existential recomposition (e.g., the subject to components of subjectivity) that theoretical metamodels engender, the ecosophical project of nascent subjectivity becomes lost to itself. Nascent subjectivity is entirely dependent on the capacity to put one's thinking into 'a constantly mutating socius' (Guattari, 2008: 45). In this sense, the 'effects of the machinic phylum on subjectivity' detailed in *Chaosmosis* should be taken right alongside of the challenges and tasks Guattari proposes at the conclusion of *Three Ecologies* (Genosko, 2009: 70). Ultimately, Guattari's machines (be they de-

celibate, abstract, aesthetic, etc.) have two crucial, praxis-oriented objectives: (1) “the individual” install himself into collective dimensions (becoming-machine); (2) institutions and groups evolve autopoietically through processual encounters with complex articulations of—disparate sources of alterity (nascent subjectivity at the level).

In many ways, Guattari’s version of the machine could be regarded as an appropriate emblem for poststructuralism. Breaking with the (dogmatic) sign systems of structuralism, Guattari’s focus on machines also performs an important inversion of phenomenology’s tendency to ‘reduce the objects under consideration to a pure intentional transparency’ (Guattari, 2008: 25). And yet, though he explicitly distances his thought from structuralism and phenomenology, Guattari does retain important traces of each these intellectual movements. His writing on machines incorporates a preference for studying contemporary structural objects, but the methods he advocates (schizoanalysis, transversality, etc.) emphasise the need for “spontaneous receptivity”, a quality esteemed by many phenomenologists, which encourages us to encounter each phenomenon in its heterogeneity rather than overwrite its expression according to the structure of our interpretative frameworks. In grasping Guattari’s important theoretical distinction between machine and structure, one should acknowledge, as Watson aptly notes, that they are ‘inseparable’ and ‘dependent on one another’ as a conceptual pair, in much the same way as we might say of poststructuralism and structuralism (Watson, 2009: 39). The notion of structure must play a crucial role in discussions of the machine, even though Guattari writes about structures with evident disdain.

For Guattari, machines pose at least three qualitative differences to “structures” (the obvious emblem of structuralism). First of all, machines express an affective logic of intensities (or “pathic logic”), while structures operate according to the logic of discursive sets. Discursive sets presuppose a separation between subject and object, and for this reason, ‘The truth of a proposition answers to the law of the excluded middle: each appears in a relationship of binary opposition with a ‘foundation’ (Guattari, 1995: 10). In the logic of intensities, the relationship between subject and object remains open to question; therefore, the machine ‘extracts complex forms from chaotic materials’

'there is no extrinsic global reference' (Guattari, 1995: 28). Indeed, the logic of intensity is quintessential to ethico-aesthetic paradigms. Structures, however, smother scientific paradigms in that they slow down or bracket chaos and alterity in order to be referent (Deleuze and Guattari, 1994: 118). To combine the terms of *What is Philosophy?* and *Chaosmosis* (published in consecutive years), machines-as-philosophy seek to actualize 'consistency specific to' chaos or alterity, whereas structures-as-science use the 'actualize the virtual,' and, by extension, to define sources of alterity through referential known variables (Deleuze and Guattari, 1994: 118). [10]

From the polarity above, we can clearly distinguish machines and structures in terms of their opposing attitudes towards alterity or difference. A structure defines difference in relation to itself, while machines 'direct us towards a more collective machinic multiplicity of delimited unity, whose autonomy accommodates diverse mediums of alterity' (Guattari, 1995: 42). The machinic drive for autopoiesis necessitates a process of undergoing heterogeneous elements operative in the event, which "heterogenises" the machinic of any dominant, unifying, or universal trait (Guattari, 1995: 39). Machines initiate a process of resingularisation precisely by allowing themselves to breakdown as they disjoin and rejoin to form new configurations immanent to the singularity of the event. As such, machines offer strong metamodels for negotiating refrain-intersections through the invention of 'new ecological practices', upon which Guattari comments in *The Three Ecologies*, 'their objective being to processually activate isolated and repressed singularities that are just turning in circles' (Guattari, 2008: 34). In fact, as Watson notes, the rationale and language Guattari employs to describe eco-praxes hold much in common with his writing on schizoanalysis, and we may see them as intricately related projects (Watson, 2009: 184).

Moreover, as a consequence of these two prior distinctions, machines embody an awareness of their own fluidity and finitude, whereas structures, like Guattari's diagnosis of 'capitalist subjectivity', are 'intoxicated with and anaesthetized by a collective feverish pseudo-eternity' (Guattari, 2008: 34). In addition to dividing human experience of the social into rigid categories (e.g., nature vs. culture), structures naturalise the division by 'stabilizing the maximum number of existential refrains' (Guattari, 2008: 34).

Given our knowledge of machines and structures in *Chaosmosis*, we can (re)appropriate *Three Ecologies* to gain an even greater command of this crucial opposition:

The principal common to the three ecologies is this: each of the existential Territories with which they confront us is not given as an in-itself [en-soi], closed on itself, but instead as a for-itself [pour-soi] that is precarious, finite, finitized, singular, singularized, capable of bifurcating into stratified and deathly repetition or of opening up processually from a praxis that enables it to be made 'habitable' as a human project.

(Guattari, 2008: 35)

This passage in particular—its language of ‘in-itself’ (structure) and ‘for-itself’ (machine)—speaks to the important role of Jean-Paul Sartre’s theory of groups in Guattari’s theory of *disjunctive* collectivity, which his machines diagram.

Gary Genosko has already demonstrated the degree to which Guattari’s early distinction between subjugated groups and subject groups is an appropriation of Sartre’s writings on seriality and fusion. For our purposes, it is also useful to consider machines and structures in this context. Guattari inherits Sartre’s passion for thinking about group behavior because he shares Sartre’s hatred of seriality, which Fredric Jameson defines as ‘the form of human interaction which corresponds to the domination of the practico-inert’ (Jameson 1974:147). [11] In other words, a population is subjugated by seriality whenever the members of one group influence one another automatically via behavior that is mass-proscribed by an elite, seemingly invisible authority. On the other hand, according to Genosko, a subject group ‘has liquidated its seriality and come together in “the flash of a common praxis”’ (Genosko 2008: 60). Subject groups connect in response to an event rather than the mandate of a leader or doctrine. Subject groups illustrate a disjunctive mode of collectivity in that they have priority for a processual engagement in dynamic encounters with sources of alterity rather than the stability and dominion of a self-asserted structure. For Guattari, this mode of subjectivity—like the machine—signifies a solidarity that occurs without the dogmatic influence of any leaders. Furthermore, the subject group measures its collectivity not on the amount of people participating in the group, but rather on the quality of differ-

articulated among group members, as well as the group's capacity to register the enunciations of (non)human assemblages outside of the group. [5] Consequently, group attentive to its own ecology—the diversity of its (ephemeral) constituency ; broader institutions and environment with which it interacts—is quick to (re)shape response to a wide spectrum of mental-social-environmental forces. When “isolat structures are brought into working proximity, structure breaks apart, and this disj necessary for true collectivity. Again, this is a monumental insight of Guattari's ec relationships of mutual constructivism and acts of co-creation are predicated upon commitments to disjunction—the processual breakdown of structures into machir

Genosko makes a critical point that Guattari's distinctions between machine and subject group and subjugated group, are “non-absolute” (Genosko, 2008: 60). For an institution or group that operates à la the machine is not necessarily machinic —it could devolve at any moment into the seriality of a structure. But the same holds the inverse (i.e., structure to machine), and this conviction is the cause of Guattar optimism regarding the potential impacts of remaking social practices. In critiquin calls “Integrated World Capitalism” (IWC), Guattari simultaneously sets up a *contra* which to invent eco-praxes and he specifies a *target* discourse at which to direct ecosophical interventions. Throughout *The Three Ecologies*, Guattari suggests a opposition between the ecosophical goal of nascent subjectivity and the limits of “capitalist subjectivity”:

A capitalist subjectivity is engendered through operators of all types and size is manufactured to protect existence from any intrusion of events that might or disrupt public opinion. It demands that all singularity must be either evade crushed in specialist apparatuses and frames of reference. Therefore, it ende to manage the worlds of childhood, love, art, as well as everything associated anxiety, madness, pain, death, or a feeling of being lost in the Cosmos...IWC. massive subjective aggregates.

(Guattari, 2008: 33)

On none of these “subjective aggregates” is IWC more dependant than mass me

Guattari likens mass media to poison and mutant algae as he illustrates its tender pollute mental ecology and erode social ecology. Doubtlessly alluding to mass conditions and his image of the television spectator, he claims, 'It is not only species are becoming extinct but also the words, phrases, and gestures of human solidarity' (Guattari, 2008: 29). When Guattari (2008: 38) calls for a 'value-systems revolution' would 'reevaluate the purpose of work and of human activities according to different criteria than profit and yield', he is at once announcing the need for a revolution using media technologies. If, as Genosko (2009: 70) insists about Guattari's project most important stake is the development of a new kind of subjectivity' (and if we remember Guattari's contention that new telematics and computer technologies contemporary productions of subjectivity), then media is arguably the most important of ecosophy today.

Towards Post-Media

Digital theorist Gregory Ulmer has recently claimed that electracy is the principal emergence of group subjectivity—a mode of experience that interfaces 'between individual and collective' (Ulmer, 2005: 115). As a pedagogy of new media, electracy purports for the community as a whole what literacy did for the individuals within the community (Ulmer, 2005: xxvi). Unprecedented both in degree and kind, the new collaborative work for by electracy will require, throughout its development, the testing of numerous methods derived and appropriated from poststructuralist theory. With Guattari's work in mind, I will formulate some urgent questions for electracy, and these questions also posit urgent connections between ecological and digital approaches to the humanities. For it is not clear what happens to our understanding and experience of the digital apparatus when we consider the theoretical components of ecosophy (e.g., nascent subjectivity and the machine). Guattari does not answer this question in his own work; however, he does leave a trail of provocative signposts—particularly in his select use of the term "post-media". For post-media, as I will suggest, names a potential mode of cultural production that makes an *ecosophical* use of digital media technologies.

Post-media remains a relatively underdeveloped area in scholarship invoking Guattari's

probably because Guattari develops the concept only in passing, elusive and interwoven throughout his later works. [12] Unlike schizoanalysis or geophilosophy, post-media stands out as the subject of entire chapters. Still, post-media (or “the post-media era”) stands out in Guattari’s writing as an optimistic horizon to which his other key concepts repeat:

Only if the third path/voice takes consistency in the direction of self-reference—carrying us from the consensual media era to the dissensual post-media era—can we each be able to assume his or her processual potential and, perhaps, transform this planet—a living hell for over three quarters of its population—into a universe of creative enchantments.

(Guattari, 1996: 104; my emphasis)

An essential programmatic point for social ecology will be to encourage capitalist societies to make the transition from the mass-media era to the post-media era in which the media will be reappropriated by a multitude of subject groups capable of directing its resingularization.

(Guattari, 2008: 40)

Technological developments together with social experimentation in these new domains are perhaps capable of leading us out of the current period of oppression and into a post-media era characterized by the reappropriation and resingularization of the use of media.

(Guattari, 1995: 5; my emphasis)

We can already notice from this sample that Guattari’s “post-media” carries connotations that evade Lev Manovich’s 2001 definition of the term. For Manovich, post-media refers to the change surrounding artworks and the nature of mediums in contemporary, digital art. On one hand, the Internet makes multimodal communication the norm; hence, it is difficult to categorise net art (which often combines photography, video, text, image, and sound) under the traditional logic of genre typology (i.e., identification via medium: sculpture, drawing, painting, etc.). According to Manovich, ‘if one can make radically different versions of the same art work...then the traditional strong link between t

of an art object and its medium becomes broken' (Manovich, 2001). In other words, more artworks commonly exist across different mediums, the idea of the medium still important in the formation of meaning—can no longer be appealed to in sorting various artworks from each other. In Manovich's terms, *post-media* is synonymous with *post-medium*.

By contrast, Guattari appears to be less focused on the typology of art proper, as *post-media* evokes a broader sense of social transformation. Although Guattari and Manovich identify a similar historical cause (i.e., the proliferation of new media and accessibility to non-corporate entities), Guattari's conception of *post-media* is true to the idea of the "new aesthetic paradigm", which, at a basic level, involves the explosion of artistic techniques and mentalities into arenas of social practice and institutional innovation. Innovative, aesthetic uses of media technology become a way to generate nascent subjectivity and machinic collectivity: 'One creates new modalities of subjectivity the same way that an artist creates new forms from the palette' (Guattari, 1995: 7). Guattari points to several examples in the field of psychoanalysis that demonstrate how new media may be used in parallel with his theory of the new aesthetic paradigm. For instance, he refers to a practice in which the therapist acts out or improvises "psychodramatic scenes" with the patient while a video camera records both of them. Therapist and patient watch and discuss the video playback of the scene; here, the audiovisual affordances of video make possible a new mode of relating to the production of one's subjectivity. Just as early alphabetic writing systems established a new relationship between people and language. These video-enabled practices, according to Guattari, often furthered psychoanalytic treatment programs by emphasising the fluid, creative dimensions of a subjectivity that is always in production, always open to manipulation and mutation, in opposition to static or representational models of the subject (Guattari, 1995: 8). Guattari argues that, like these, 'the inventiveness of the treatment distances us from the scientific paradigm and brings us closer to an ethico-aesthetic paradigm' (Guattari, 1995: 8). *Post-media* continues a pre-digital mission to transform subjectivity; as such, media technologies are employed (and considered vital) because they generally provide the most accurate way to diagram nascent subjectivity. In essence, the desire to use the technology is not

by the theory, and the development of the theory is itself influenced by technological developments. It is very tempting to think—and certainly not unreasonably so, given grammatological research confirming the correlation between literate societies and analytical thought processes—that a society equipped with new media is in a better position to sustain a *lived experience* of nascent subjectivity, provided, of course, concurrent efforts to develop post-media practices by which to engage these technologies.

While Guattari sketches several prototypes for post-media practices in writing about activist and clinical work, humanities scholars still need to unpack the theoretical underpinnings of his vision before we can really be in a position to initiate, facilitate, or even evaluate its realisation. From the onset, we must be clear that post-media futurism does not allude to an era devoid of media or its effects; Guattari agrees with Paul Virilio when he claims, ‘the increased speed of transportation and communications and the interdependence of urban centres are equally irreversible’ (Guattari, 2008: 29). While Guattari is very against *mass* media, he is anything but a technophobe. Verena Coplan correctly points out that ‘[u]nlike many post-68 French theorists, Guattari does not use a Heideggerian blue print...[h]e advocates the construction of new subjectivities with technology’ (Conley, 2009: 120). In Guattari’s work, mass media is conceived as a particular ideological use of media technology that is in no way inherent to or determined by the medium. In his essay ‘Toward an Ethics of the Media’, Guattari identifies four ‘series of factors’ that he believes will give shape to a ‘coming perspective’, from which to envision post-media futures (Guattari, 2002: 18). Without rehashing them here, these four series of factors speak largely to the possibility for new kinds of relationships between traditionally stratified groups arising commensurate with new levels of interaction in education, and politics. Guattari’s speculations about post-media take a more rigorous theoretical turn in *Chaosmosis*, wherein he problematises our habitual attitude toward technologies (e.g., radio, television, computers) that have now become fixtures of daily life in many parts of the world. From the stance of mass media, especially from the consumer’s point of view, a television or a computer is regarded as a technical machine—‘the machine as a subset of technology’ (Guattari, 1995: 33). Guattari calls for a re-examination of this relationship, such that his expanded conception of the machine (see above) is

'prerequisite for technology rather than its expression' (Guattari, 1995: 33).

Thus, if we take this reversal to be a critical gesture of the post-media stance, the herself recast into an altogether different set of relations with media: technical machines become *machinic technologies*. And so, rather than seeing the computer as a structure whose operations demands technical expertise above all else, the post-media user approach the computer as a technology in progress (i.e., always 'in the process of reinvented'), whose operations affect and are affected by machinic assemblages 'constantly mutating socius' (Guattari, 2008: 45). That is to say, under the logic of media all users maintain a potential to invent the practices by which people relate to media, while, at the same time, there is a basic awareness that the hardware and software of new media wield a powerful stake in the production of human subjectivity. Digital media—considered as machinic technologies rather than technical machines—constitute "complexes of subjectivation: multiple exchanges between individual-group-machinic" (Guattari, 1995: 7). In other words, with digital writing systems, we are "not confronted with subjectivity given as in-itself, but with processes of the realization of autonomy, or autopoiesis" (Guattari, 1995: 7). Neither the writing of the programmer nor the writing of other contributors of a given digital writing system can be said to be the sum of an individual's choices; once writing enters into the complexity of such systems, the act of speaking, writing becomes less the product of single-minded rhetorical intention: it is a dynamic variable whose semiotic life affects and is affected by patterns of movement across an intermingling if not deterritorialising ecology of collective assemblages of enunciation.

Of course, the post-media stance owes its viability to the decentralisation of the means of media production and dissemination brought about by the commoditisation of personal computing; however, it would be a dangerous reduction to mistake the mere technical fact of decentralised media production for the cultural achievement of a post-media sensibility. Indeed, theorising post-media enables us to see just how well mass media has already adapted to the "emancipatory" conditions of Web 2.0. Before hastily celebrating the transgressive qualities of any emergent media ecologies, we would do well to note Goddard's insistence that the shift from mass media to post-media is anything but

or superficial matter:

the post-media era is...not something that can be given in advance; it is instead the process of the production of subjectivity, the becoming of a collective assemblage of enunciation whose starting point is the emptiness and coerciveness of the normalising production of subjectivity that the mass media currently enact. The Internet already gives us some indications as to what aspects of digital network culture might be able to contribute to this emergence of a post-media sensibility and what elements in contrast merely help to add sophistication and diversity to normalisation processes under the guise of interactivity.
(Godard, 2011)

In fact, some of the most striking examples of *mass media 2.0* can be found on popular websites dealing with ecological crises and the green movement. Guattari's ecological perspective on media and globalisation offers a framework with which to analyse recent surges of this emergent online genre, which we may call the "green list".¹ With a basic definition, the green list is a form of Web 2.0 writing whereby Internet users enumerate a clear and simple list of steps or tips intended to promote an eco-friendly lifestyle. In its most common manifestation, however, the green list—whether authored by individuals or corporations—becomes a testament to IWC, mass media, and consumerism. As the brief discussion of green lists below will suggest, the Web 2.0 environment is entirely susceptible to mass media colonization, and we therefore must aim to develop oppositional, post-media pedagogies in order to realise any of the revolutionary potentials that scholars typically attribute to digital authorship. [13]

Guattari provides the perfect preface for my mini-critique of the green list when he speculates on the prospects of 'computer-aided design':

The machinic production of subjectivity can work for better or for worse...It's impossible to judge such a machinic evolution either positively or negatively, everything depends on its articulation within collective assemblages of enunciation. At best there is the creation, or invention, of new Universes of reference; at worst there is the deadening influence of the mass media to which

millions of individuals are currently condemned.

(Guattari, 1995: 5)

On one hand, green lists apparently pop up as so many signposts directing consumers to the market's "socially responsible" transitions, marking the promise of "conscious consumerism" under a new kind of capitalism. Launched by a few environmentalists in 2007, *The Daily Green* has quickly become 'one of the most trusted sources of information for news and information about going green' with the mission to 'broaden the audience for earth-friendly living by showing how going green is relevant to everyone' (*Daily Green*, 2009). A section of their website called 'top going green tips' offers ten 'idiot-proof' tips that every user can implement immediately to 'get started on a green path' (*Daily Green*, 2009). These steps, many of which are common to most green lists, include: stop idling your car, turning off computers when not using them, switching to green energy for your home, doing laundry with cold water, carpooling, and paying bills online (*Daily Green*, 2009). Most of these tips constitute a gesture towards sustainability in that they effectively counteract the damage of cultural habits that waste natural resources on account of laziness or inefficiency.

On the other hand, all of the tips assume, no doubt encourage, a basic continuity of the capitalist system will continue to define themselves (and their relation to environmental concerns) through consumerism. The explicit message is to commute to the corporate office with a car or to share one car for a trip to the mall with a group of friends—keep amassing bills and paying them online now. By taking, as a given, activities associated with working and spending, in the name of the commodity, green lists protect institutions like malls and transnational corporations by maintaining them innocently in the background. Figuratively speaking, corporate institutions are the pervasive white space in between each eco-friendly tip. The issue is the invisible motives that prompt each tip and they linger as the implicit desire for which green lists prepare their readers. Rather than question the mall or the corporation, green lists insist that consumers must become more efficient in their consumption of the capitalist commodity. As such, green lists function as training wheels meant to help consumers help corporations survive the growing awareness of human contributions to the ecological crisis. This crisis is of course particularly due to the

spread of American consumer culture during the last fifty years, which is now being exported more than ever throughout the world.

While plenty of green lists are published in isolation from one another on the web, a number of major Web 2.0 style hubs for this genre that act as databases, organized according to topics such as “green cuisine” or “green cleaning”. First of all, just as a studio executive behind each Hollywood feature film, many green list databases are sponsored by corporate entities. A true manifestation of Guattari’s nightmare of a database *The Great Green List* is sponsored, albeit discretely, by a company called Earthsense. [14] Though the site’s amateur appearance is meant to resemble the format of a grassroots, public wiki, all submissions to *The Great Green List* must pass by an editorial staff hired by Earthsense. Moreover, many green list hubs, including *Great Green List*, feature product promotion hyperlinks that send users directly to shopping areas. In April of 2009, *The Daily Green* hosted a link (atop every single page of their website) that sent users to a Radio Shack promotion. (Hence, this “neutral” green hub frames and feeds straight into a corporate buying site.) Clicking on the Radio Shack link, users learn that the promotion offers a Radio Shack gift card to anyone willing to exchange used electronics for store credit (PC Informant, 2009). Perhaps such deals could lead to some reduction of the 20 to 50 million tons of electronics waste that accumulate around the world each year, though non-profit organizations already offer free and convenient services for recycling electronics.

Nevertheless, applying Guattari’s writings on capitalist subjectivity, I would argue that such promotions shorten the *experienced* life cycle of the company’s products by furnishing consumers with incentives to part with electronics before they reach the end of their technical-functional life cycle (or as soon as impulse decides it is a nice day to upgrade to the latest model). Implicitly, these promotions grease the skids for more efficient consumption, encouraging an even quicker rate of product turnover and fueling the capitalist mode of production’s expansion into new global markets. We should also note the acceleration that accrues to the shopping experience, which is now more aptly a *shopping* experience. Shopping time is eclipsed as less profitable waste, for here the path is clear for consumers around the world—without waiting in line—to use their “old” comp

already own it, then it must be old) to purchase the newest computer, all the while like a good, socially responsible capitalist: they “made” money and “saved” the environment. If left to the green list conventions, this is what the concept of sustainability becomes for citizens whose native tongue is the language of consumption. Indeed, hypertextual green lists are *literal* relays to the commodity, and they are much more different from the printed pamphlets of early capitalism, which merely spelled out the what and why of commodity expenditure.

Assuming the collective assemblages of enunciation of post-media should contrast with commercial logic evident in green list hubs, we need to return to the question of digital media in search of a more analogous and desirable comparison. Without going into detail here, I want to suggest a space of potential synthesis between post-media pedagogies and the contemporary art practices theorised as “relational aesthetics” by curator and critic Nicolas Bourriaud, himself an expert on Guattari’s work. Speaking of his encounters with contemporary art, Bourriaud asserts that an artwork’s primary value is its status as a “social *interstice*” (Bourriaud, 2002: 16). Appropriating the term from Michel Foucault, Bourriaud explains, ‘The interstice is a space in human relations which fits more comfortably and harmoniously and openly into the overall system, but suggests other trading possibilities than those in effect within the system’ (Bourriaud, 2002: 16). For Bourriaud, art acts as a social interstice to the degree that it ‘creates free areas, and time spans whose rhythms contrast with those structuring everyday life’ or ‘encourages an inter-human communication that differs from the “communication zones” that are imposed upon us’ (Bourriaud, 2002: 16).

Translating the concept of social interstice into humanities education, one can imagine how academic projects could be designed, with the resources of digital media, to act as a social interstice for proposing ideas on the basis of a ‘social and aesthetic “profitability”’ by exploring ways of relating to new media that deal with non-commercial forms of communication (Guattari, 2008: 42). One promising example of humanities education becoming a social interstice is the Critical Media Lab (CML) at the University of Waterloo, founded in 2008. Michael O’Gorman, director of the CML, describes the program as ‘a research-creation incubator that links researchers in the Faculty of Arts [and humanities graduate students] with the methods and tools necessary to apply critically reflective work at the R & D level of techno-

production' (O'Gorman, 2008). By virtue of the institution's transversal relations to inside and outside the university, participants in the CML work on innovative media that speak to values beyond commercial profitability, doing so in a language of product/experience design that makes critical theory/thinking manifest to diverse audiences. [15] This pioneering work furthers our thinking about the prospects for developing alternative media practices in the context of humanities education, precisely in the sense that it suggests the necessity of creating institutional spaces that foster *critical intervention* in media (and subjectivity) at the level of its production, rather than just a *consumerist imitation* of the mass media forms, as is the case with green listing. Such endeavors demand a notion of creativity—applied to the formation of both specific projects and collective institutions—that traverses multiple ecologies, not simply transposing content from one domain into the pre-established form of another domain.

Autopoietic Creativity

Claiming that tertiary descriptions usually revert back into dualisms, Guattari prefers term frameworks, 'The fourth term stands for an *n*th term: it is the opening onto a new level' (Guattari, 1995: 31). Autopoiesis is the *n*th component of ecosophy. Autopoiesis, commonly summarised by Guattari as a dance between chaos and complexity, characterises the passage back and forth between nascent subjectivity, machinic collectivity, and post-media. Near the end of *Chaosmosis*, Guattari evokes a condition omnipresent in his worldview of self-organising, partial objects: 'Something is detached and starts to work for itself, just as it can work for you if you can "agglomerate" yourself to such a process' (Guattari, 1995: 132-3). One can think of autopoietic creativity as the capacity to yield to chaos and, in doing so, undergo the event so as to channel the advent of new subjectivity. (Guattari calls this process an "event-advent".) The task here is to 'grapple with alterity at the point of its emergence', to create in concert with sources of alterity (machine, post-media), rather than overwriting alterity in favor of default, apriori, or transcendent representations (i.e., the ego, mass media) (Guattari, 1995: 117).

In opposition to "whole over parts" models that characterise more popular notions of ecology, Guattari's conception of autopoiesis—the logic of *parts without wholes*—

actually provide a more thoroughly ecological account of the relationality involve dynamic open systems. Wholes can become problematic when they are posed in transcendence; literary scholars like Dana Phillips and Timothy Morton have already illustrated how environmentalist constructions of Nature—posed as a whole magical thought to transcend culture—severely limited the efforts of early ecocriticism. The ecology without Nature, to borrow Morton’s phrase, would employ a logic of parts/wholes; here, there are no discrete, transcendent wholes upon which to ground an (eco)system because the so-called constituent parts always retain their partiality. Processual disjunction comes constant connection and reconfiguration, and there is no whole to impose stability by restricting the relationality of the partial objects. One of the greatest strengths of Guattari’s autopoietic methodology is that it initiates, at a conceptual level, a processual disjunction of discrete elements. In fact, for Guattari (and Deleuze), thinking becomes more “holistic” to the degree that transcendent wholes (especially discrete entities of oedipal psychology) are continually broken down into partial objects along a plane of immanence on which they engage and reengage in infinite productive syntheses with other partial objects.

This autopoietic mode is of course absent from the so-called “ecological subject” of traditional ecology, which retains an ever-expansive Self at the front and center of its ontology. An ecology of eco-humanities adapted to Guattari’s ecosophy would thus replace Naess’s “Self-Realization” with autopoietic creativity, making autopoiesis a new core value at the center of the humanities. Furthermore, the virtual ecologies of digital media make the Internet, for instance, an ideal pedagogical scene for humanities courses to introduce autopoietic thinking, which, as Guattari suggests, is a far cry from our oedipal habits. In this sense, autopoietic creativity should be regarded as a crucial skill for the development of both ecological literacy and media literacy. We must learn to teach autopoietic creativity and, in doing so, *autopoietise* the academic research and writing practices of the humanities tradition.

Transversal connections among recent scholarship suggest a promising starting point. In particular, Guattari’s ecosophical imperative to intervene at a micro-social level finds a pedagogical expression in the tenets of ecocomposition set forth by Sidney Dobson and Christian Weisser, namely that ‘student writing should be directed beyond the limits

scope of classroom assignments to address larger, public audiences' and that write be taught as a vehicle 'to affect change, to bring about awareness' in the mental, and environmental ecologies of which students are a part (Dobrin and Weisser, 2004). Additionally, Ulmer has already theorised some ways in which the digital humanities can act a kind of online consultancy. [16] Under this approach, students work *heuristically* through an intensive web-based project, experimenting with digital authoring software in order to inject humanities (often poststructuralist) perspectives into the discourse surrounding public policy issues. As the pedagogical genres of electracity continue to develop, teachers should begin to build networks between their classes and larger audiences with the goal of circulating academic work among relevant social organisations or political bodies. [17] Of course, the primary value of any student project should be its capacity to facilitate learning experiences specific to a given discipline; one risk of service-learning projects (via partnerships with non-academic organisations) is that the service can undermine the learning. Thus, in designing institutional spaces and collaborative projects for the post-media era, one should mind Guattari's distinction between machines and structures: create an autopoietic network that learns like

For example, Guattari's theory of group subjectivity via machines could be applied to present efforts to alleviate the disciplinary isolationism that continues to cripple research universities. Scholars who aspire to collaborate across multiple fields should create *transdisciplinary machines* rather than *interdisciplinary structures*. With transdisciplinary machines, the objective is not necessarily to incorporate the study of science (its objects and methods) into the study of, for instance, cultural or aesthetic texts. Such "inclusive" maneuvers result, more often than not, in a homogenisation of fronts. In the case of ecocriticism, as Dana Phillips points out, both ecological science and literary analysis often become reduced to ideological critique. Therefore, rather than encouraging humanities scholars to somehow acquire an additional expertise in science inquiry (and vice versa), cross-disciplinary efforts would do well to recast some of the co-creation of transdisciplinary machines (i.e., evolving sets of processes common to the institutionalising the production of a group subjectivity). This transversalist mode valorises an ensemble of heterogeneous scholars, each sounding their mastery of

instruments unique to their respective disciplines, playing in concert with one another at the same venue (i.e., collaborating on the same problems and projects). [18] If we draw an analogy to much of the work that currently parades under the banner of interdisciplinarity, then we find the projection of an impossible ambition: to command expertise in some or every academic field—to become, in short, a one-man band.

Furthermore, concerning teaching, I would argue that by creating networks for the ecological *circulation* of student writing, we may open up pedagogical interactions that otherwise get left to chance when students merely *post* their work onto vast Web 2.0 platforms. If we can publicise aspects of the learning process—thereby ‘accommodating diverse mediums of alterity’—our various academic communities (e.g., courses, collaborative scholarly projects, etc.) will operate much closer to the disjunctive circuitry of that Guattari’s machines diagram. By building into the work autopoietic relations that connect different academic perspectives, academic discourse will be inevitably challenged to become more responsive in response to different problems and different rhetorical situations. The effort to create these opportunities goes hand in hand with the imperative to extend complex ecological and humanities perspectives into the public sphere—particularly those domains where competing discourses threaten to overwrite or displace the humanities. As Deleuze and Guattari assert, over the course of the twentieth century, commerce has all but replaced philosophy in the creation of concepts (Deleuze and Guattari, 1994: 16). Yet the circulation of electrated projects will bring us much closer to the political conditions of the post-media era, which, according to Guattari, will ‘require collective forms of administration and governance rather than a blind faith in the technocrats of the State apparatuses’ (Guattari, 2000: 120). Ultimately, autopoietic networks do not promote allegiance to a specific, existing political position; rather teaching autopoiesis constitutes an ethical ‘refoundation of political thought’ (Guattari, 1995: 120). The eco-humanities of the post-media era, then, would be less concerned with environmentalist themes or values and more rigorously committed to the promotion of transversal thinking/learning, by which traditional objects of study become recast so as to foreground the ecological relationships within-among-between-across “isolated” entities.

Scholars and teachers working in the (eco)humanities occupy a unique position in

to invent the public spheres of post-media and to inspire students to proliferate knowledge beyond academic conventions through electrated encounters with ecological problems. Collectively, our research will lead to the discovery of new paradigmatic problems that will reaffirm the vitality of our fields for thinking the digital apparatus of general ecological crisis. Our pedagogical experiments with emergent technologies will push students toward new ways of understanding and experiencing media, but toward new ways of putting academic research (even poststructuralism) to use in unconventional rhetorical situations. As Guattari suggests—and this may seem counterintuitive—theory across the humanities disciplines can become more expansive and more creative if we cultivate methods for appropriating computers as equipment to think *with*.

Computers, expert systems and artificial intelligence add as much to thought as they subtract from thinking. They relieve thought of inert schemas. The forms of thought assisted by computer are mutant, relating to other musics, other Universities of reference.

(Guattari, 1995: 36)

In taking a post-media stance towards emergent media, we can think the new and the old collectively, but only to the extent that we develop digital practices capable of producing new (ecosophical) relation between individual subjectivity and the collective through this perspective, anticipated in Guattari's writing, the eco-humanities and the digital humanities become rhizomatically bound towards one another through the concept of ecosophy.

Biographical Note

John Tinnell is a PhD student specialising in post-structuralist theory and digital media at the University of Florida, where he also serves as the webmaster for the English Department. Another one of his recent essays on Felix Guattari, ecosophy, and digital writing—which rethinks human-computer interaction in terms of autopoiesis as opposed to augmentation—is set to appear in the forthcoming collection *Ecology, Writing Th*

New Media: Writing Ecology (Routledge, winter 2011). He has also published a review of *Deleuze/Guattari and Ecology* in *Deleuze Studies* (2010) 4(1). His current project examines the rhetorical and grammatological significance of mobile media, particularly smartphone apps that mobilise visual search epistemologies, augmented reality browsing, and the global positioning system.

Notes

[1] In 2002, Sidney Dobrin and Christian Weisser examined this tendency among ecocompositionalists and identified several key differences that distinguish “ecocomposition” from ecocriticism, green cultural studies, ecofeminism, etc. In contrast to writing about nature (nature writing) or teaching environmentally themed texts (ecocriticism), ecocomposition strives to rethink discourse (particularly the active production) as an ecological process and points to the myriad ways in which writing affects and is affected by surrounding environments. Aware of ecocomposition’s academic infancy, Dobrin and Weisser were quick to stipulate a pioneering quality to their work, ‘This book only begins to scratch the surface of a body of research that is to be further explored’ (15). The first consistent use of the term “ecomedia studies” emerged during the 2009 ASLE conference, specifically in panel discussions conducted under the section heading “Ecological Media”. Though a small group of film and media specialists have begun to promote themselves as ecomedia scholars, they have not yet produced a book-length work which would, in effect, do what Dobrin and Weisser do with ecocomposition. *EcoMedia*, Sean Cubitt’s 2005 book, perhaps bears a misleading title since Cubitt’s primary objective is to extract environmental themes from popular culture and television. Cubitt’s book (and many other books like it) does not attempt to define ecomedia as a new field of study; he basically applies literary ecocriticism to the study of film and media.

[2] Dana Phillips and Tim Morton argue that ecocriticism’s ideological attachment to a pastoral worldview and false beliefs about literary representation render the movement too nostalgic and too naïve to sustain the most urgent dialogues to be had between English studies and ecological research.

[3] Of this process of “becoming-animal”, Leonard Lawlor writes, ‘Instead of a resemblance relation, the relation that defines becoming is pre-positional. I find

positioned before the animal, but 'before' in fact means I am in proximity with the animal. I am among the others and they are in me. But just as imitation does not become, neither does representation define the preposition of one *for* another becoming consists in a zigzag structure: we become animal so that the animal becomes not human, but something else. The zigzag is set in motion by emission and extension a function (deterritorialization). And finally, beyond the destruction of the molar deterritorialization, in order to be successful, must use the animal function to produce something. It must take the micrological function of the rat, for example, and write 'rat' (Lawlor, 2008: 178-9).

[4] Guattari was in fact wary of popular and critical notions of "identity", so much that he tends to avoid using the term in his discussion of subjectivity and describes his own project as 'a matter of a perspective on identity which has no meaning unless identities explode' (Guattari, 1996: 216).

[5] Gary Genosko and Andrew Murphie provide a further critique of such models from the perspective of metamodeling: 'models operate largely by exclusion and reduction, tightly circumscribing their applications and contact with heterogeneity. The world of models is arid, lacking ambiguity and uncertainty. By contrast, metamodeling opens up and introduces movement, multiplicity, and chaos into models' (Genosko and Murphie, 2009: 10).

[6] Genosko (2009: 73) argues that the mental ecologies in Guattari's work owe more to artists and writers (e.g., Kafka, Beckett, Proust) than to psychoanalysts (e.g., Freud, Lacan, Klein).

[7] Guattari regarded so-called ideological critique as a framework unfit to grasp the productive dimension of subjectivity as it unfolds across integrated world capitalism (IWC): 'Ideology remains in the sphere of representation, whereas the essential production of IWC does not simply concern representation, but also a modelization of behavior, sensibility, perception, memory, social relations, sexual relations, imaginary phantoms, etc.' (Guattari and Rolnik, 2008: 38-9).

[8] See Janell Watson's chapter 'An Energetics of Existence' in her book *Guattari: Diagrammatic Thought* for the most thorough engagement with Guattari's diagrammatic four ontological functions (i.e., flows, phyla, territories, universes), which appear in *Cartographies schizoanalytiques* and *Chaosmosis*.

[9] As Janell Watson has shown, Guattari's early formation of machine and structure

marks a quite concrete instance of his “writing between Lacan and Deleuze.” In Watson discusses how Guattari develops this pair of concepts with direct reference to Lacan’s *objet petit a* and Deleuze’s characterisation of structure in *Logic of Sense* (Watson, 2009: 39-41).

[10] This explication is by no means intended to function as a wholesale critique of science or a blanket statement about its aims, which is beyond the scope of this article. I am merely alluding to what Deleuze and Guattari call the ‘respective attitudes to chaos’ elaborated upon in their comparative analysis of philosophy and science in *Philosophy?* (Deleuze and Guattari, 1994: 117-133).

[11] Sartre’s ‘practico-inert’ refers to conditions in which institutions *structure* social relations in a way that delimits human action, rendering freedom into a mere exercise of “dead possibilities”. For an authoritative commentary, see Fredric Jameson’s chapter “Sartre and History” in *Marxism and Form*.

[12] Verena Conley (2009: 123-126) and Janell Watson (2009: 176) both acknowledge the importance of the post-media era in Guattari’s work, though Conley’s engagement is strictly implicit. Michael Goddard is one of the only media studies scholars to deal in length with the post-media question in Guattari. Goddard’s approach differs from that of Conley in that his insights are drawn primarily from examining Guattari’s participation with free radio. At the end of his 2006 article, though, Goddard formulates a question that will address later in the context of humanities education: ‘The [post-media] question is one of how to compose networks of subjective auto-organization that are able to achieve an autonomy from neo-liberal economic and military networks and their associated deadening of relationality, affect and desire in the direction of pure functionality and aggressivity’ (Goddard, 2006).

[13] For a dynamic introduction to the discourse on the revolutionary potential of digital 2.0 authorship, see the collection of video lectures posted on the professional website of digital ethnographer Micheal Wesch and media theorist David Gauntlett.

[14] Earthsense is a for-profit company that specialises in marketing research and branding with the mission of ‘making sense of our world to provide “must-have” consumer knowledge that would make cause-related product, marketing and strategy efforts more effective...we focus on marketing that directly affects the bottom line’ (Earthsense, 2009).

[15] The Critical Media Lab is perhaps this closest thing in humanities education to the hypothetical organisation that Guattari envisions in ‘Toward an Ethics of the Subject’ (‘a new type of organism of production, adjacent to the private, supported by the state, directly managed by the creators, and truly free and responsible for its projects’ (2002: 19)).

[16] For more on Ulmer’s vision of this electrated consultancy, see the introduction (‘EmerAgency’) of *Electronic Monuments*. Here, Ulmer initially defines the EmerAgency as ‘a deconstructed consultancy, meaning that it is simultaneously an immanent critique of conventional consulting and an experiment in an alternative mode that adapts a lettered knowledge to a practice supportive of a virtual civic sphere’ (xxxii).

[17] By incorporating Ulmer’s logic of invention, the humanities can become more autopoietic by appropriating the creative arts project as a process-based affective learning experience. These “new aesthetic projects” would depart from the role projects typically occupy in courses such as creative writing, studio art, and film production. Traditional arts courses tend to structure all lecture and discussion around improving students’ artwork, attempting to polish the pieces according to the criteria of prospective artistic venues. The student is positioned as an artist-in-training. New aesthetic projects in general humanities education, however, would incorporate the art project as an experiential vehicle to enhance students’ engagement with disciplinary questions. As rhetorically situated acts of aesthetic invention, new aesthetic projects promise to cultivate the affective dimensions so crucial to digital rhetoric; they also promote a relational aesthetics that is not isolated from social or political contexts. As such, new aesthetic projects offer a unique approach for teaching and learning autopoiesis in relation to the digital apparatus.

[18] On the question of (trans)disciplinarity, Genosko writes, ‘Although transdisciplinarity goes beyond the multi- and inter-disciplinary pretenders, it is not a high synthesis or a transcendent solution’ (Genosko, 2009: 70). While the formation of transdisciplinary machines mobilising ensembles of heterogeneous scholars appears to be the most promising cross-disciplinary strategy, it certainly renders false the idea of a universal vocabulary/methodology with which to build knowledge that would synthesise and transcend all disciplinary knowledges. More likely, the transversal transdisciplinary machines would promote a multitude of minor exchanges, lead to molecular changes in the way specific disciplines operate rather than to the eventual creation of something like an uber-discipline.

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