THE GEOPHILOSOPHIES OF DELEUZE AND GUATTARI

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A fuller treatment of these issues is available in Mark Bonta and John Protevi, *Deleuze and Geophilosophy: A Guide and Glossary* (Edinburgh: Edinburgh University Press, 2004)

INTRODUCTION

The magnum opus of Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, is not only the most important work of 20th century French philosophy, but also provides an unprecedented opportunity for philosophers and geographers to collaborate. Although neither were professional geographers *A Thousand Plateaus* constitutes a "geophilosophy," a neo-materialism, which, in linking the philosophical materialisms of Marx, Nietzsche and Freud with contemporary science, avoids the traditional bogeys of materialism: determinism and vitalism. By the same token, as a rigorous and consistent materialism, *A Thousand Plateaus* provides an escape route from the paralyzing post-modernism that has trapped important contemporary schools of geography and philosophy. In addition, Deleuze and Guattari's politicized stance–their historical-libidinal materialism–provides a relief from the arid scientism and naive realism to which critics of post- modernism have all too often fallen prey.

Deleuze and Guattari's geophilosophy thus entails a profound and sustained engagement with, and challenge to, the dominant trends in philosophy and in the contemporary earth sciences Starting with the title, *A Thousand Plateaus* is rife with geological and geographical terms--along with those of a host of other sciences, mathematics, physics, biology, ethology, and anthropology among them–all of which are orchestrated by Deleuze and Guattari to create new philosophical concepts such as "deterritorialization" and "stratification," terms which not only resonate with geoscientific concepts but can also be fed back to guide research in them.

The greatness of *A Thousand Plateaus* lies in its successful attempt to develop a new materialism in which a politicized “philosophy of difference” (a common term for the work of the major French philosophers of the 1960s: Emmanuel Levinas, Jacques Derrida, and Michel Foucault, as well as Deleuze) joins forces with the sciences mentioned above. A Thousand Plateaus is a book of strange and terrifying new questions: "Who Does the Earth Think It Is?," "How Do You make Yourself a Body Without Organs?," "How does the war-machine ward off the apparatus of capture of the State?" and many others that are at first equally intimidating to the reader. Despite its difficulty, however, there are several guideposts.

EMPIRICAL GEOPHILOSOPHY

The most important guidepost: the connection with "complexity theory," to use the popular name for scientific research into self-organizing material systems. My interest in Deleuze and Guattari lies in their extension of the notion of self-organizing material systems–systems with no need of transcendent organizing agents such as gods, leaders, capital, or subjects–to the social, linguistic, political, and economic realms. The resultant "rhizome" or de-centered network that is *A Thousand Plateaus* provides hints for experimentation with the flows of energy and matter, ideas and actions - and the attendant attempts at binding them - that make up the contemporary world. Let us call this materialist study and intervention empirical geophilosophy.

Empirical geophilosophy has an explicit political dimension, for its units of analysis are “bodies politic,” material systems whose constitution in widely differing registers (the physical, chemical, biological, neural, and social) can be analyzed in political terms, for instance, the domination or putting to work of one body by another in a fixed hierarchy, or conversely, the formation of a free body with multiple, shifting, and increasingly intense internal and external connections. In analyzing the material formation of dominating bodies in terms of their formation of “territories,” domesticated areas in which stereotyped reactions can be implanted and procedures developed to exploit them, the empirical geo-philosophy of Deleuze and Guattari aims by contrast to summon forth “a new earth,” a new relation to the creative potentials of material systems to form free bodies.

TRANSCENDENTAL GEOPHILOSOPHY

The empirical geophilosophy of Deleuze and Guattari is tied to a transcendental geophilosophy. The term transcendental dates to Kant, who used it to discuss the universal and necessary conditions of possibility of rational knowledge and its objects. Deleuze and Guattari however use the distinction between virtual and actual to displace

the transcendental from the conditions of possibility of knowledge to the conditions of existence of material systems. The actual is the realm of constituted bodies, whose "traits" would be long-term tendencies, the patterns of their behavior, while the virtual, on the other hand, is the differential field of potential transformations of material systems, the thresholds at which behavior changes.

In A Thousand Plateaus, the virtual realm is sometimes called "Earth," and hence the study of the phase space of empirical systems is transcendental geo-philosophy. Deleuze and Guattari call exploring the virtual "mapping" or "cartography," and insist on its priority to history, which for them is merely the conditions for the actualization of material systems. Deleuze and Guattari's transcendental as ahistorical virtual space is thus different from the Hegelian transcendental as historical spirit, from the Husserlian transcendental as subjective and temporal, and from the Heideggerian transcendental, which remains temporal, even when its description of transcendental temporality blows apart received notions of subjectivity. (The Derridean transcendental as différance, as the thematized interweaving of time and space, is too complex to be placed in this narrative.)

The key to understanding Deleuze and Guattari's transcendental geophilosophy is "phase space," an idea developed by Henri Poincaré in the late nineteenth century to provide a visual representation of the behavior of dynamical systems. There are five steps in constructing a phase space portrait of a system. 1) Identify important aspects of a system's behavior, its "degrees of freedom." 2) Imagine or model a space with as many dimensions as the degrees of freedom of the system to be studied. 3) Represent each state of the system by a single point, with as many values as there are dimensions. 4) Follow the movement of the point, which represents the changing states of the system as it produces a line, a trajectory, through phase space. 5) Attempt to solve the equations governing the line and thereby predict the system's behavior.

The equations for closed systems (fixed matter and energy) can indeed be solved and their behavior predicted, but this tends not to be the case for open systems (those through which flow matter and energy). Open random systems are those in which no patterns emerge in our phase space representation; by contrast open self-organizing systems are those in which patterns that develop from the interaction of the basic laws of the system emerge in the phase space representation. In this case we have a qualitative knowledge of the emergent properties of the system, the macro-behavior of the system, but no quantitative knowledge of the micro-behavior of the system arrived at by analysis of the actions of the elementary particles of the system and then aggregration of the results. (This difference between what Deleuze and Guattari call the "molar" and "molecular" behavior of systems is said by some to signal the end of the reductionist program.)

The patterns found in the phase space of self-organizing systems have various features,

such as "attractor," "bifurcator," and “zone of sensitivity,” which are the respective names for: 1) a region of phase space toward which systems tend once their states approach a certain condition or “basin of attraction” (attractors thus represent patterns of behavior of the system); 2) points at which systems flip between one region of phase space and another (bifurcators thus represent trigger points when a system changes patterns); 3) a region where bifurcators cluster and amplify each other’s effects, so that small differences in the system’s parameters can provoke drastic changes in behavior (zones of sensitivity thus represent crises in the “life span” of a system).

Now there is a certain ambiguity in the term “phase space” which we must at this point eliminate: a “phase space” can mean either the representation of such a space on paper or on a computer screen, or it can mean the space “itself” as the locus of interaction of dynamic forces of material systems. Since Deleuze, for various reasons related to his project of developing a “philosophy of difference,” wants to restrict the term “representation” to the conscious recognition of the properties of constituted bodies, his notion of the virtual should not be seen as phase space qua representation, that is, as visual image, but as phase space qua field of dynamic forces. The concept of the virtual is thus a way to understand the relation of any system to the probabilities of its behaviors; it thus ranges from the collapse of the wave-packet in quantum mechanics (actualization as the selection of one condition from the superposition of all) to complex social phenomena such as war and revolution.

THE VIRTUAL AS DIFFERENTIATING “IDEA”

In his works of the late 1960s, *Difference and Repetition* and *The Logic of Sense*, Deleuze shows that the main characteristic of the virtual is that it is self-differentiating, or “difference in itself.” The virtual realm is not an undifferentiated chaos, but is articulated by “Ideas” which serve as “regional ontologies,” laying out the many ways in which “a” society, “a” language, “an” animal, and so forth can exist. Ideas are sets of “singularities,” which is a mathematical term for points that determine a range of solutions to problems; the term “singularity” is used by Deleuze to talk about attractors, that is, points in the virtual realm that provide patterns of behavior for bodies, which in this sense are determinate “solutions” to the “problem” (the Idea, the regional ontology) that lays out the manifold options for incarnating bodies of that nature. We might even say, shifting for the moment from mathematical to everyday language, that a singularity is an opportunity to “solve the problem” of being a body of a certain nature.

Deleuze shows in great detail how Ideas have a complex internal structure, being composed of series of singularities. The triggering of a bifurcator is called by Deleuze an “Event,” which unleashes an “emission of singularities,” that is, that provides for a new set of attractors or patterns of behavior. The self-differentiating process by which Ideas spread throughout the virtual, is named differentiation by Deleuze, in contrast to differenciation, which names the process of actualization, for example, the

"incarnation" of the Idea of "a" society in one particular actually existing society. The series of singularities in an Idea are arranged in "inclusive" disjunctions, so that they are "compossible," even those that when actualized would be "incompossible," that would preclude each other. Thus actualization or differenciation is the construction of "exclusive" disjunctions, the selection of a series of singularities whose actualization precludes the simultaneous actualization of others, which would then have the status of the "road not taken."

Let us now see how the 1960s Deleuzean terminology can provide the basic concepts for a transcendental geophilosophy. We can see that an actual system might, say, oscillate at one frequency within a certain range of parameters, and at another frequency within another range. The actual behavior of the system, its oscillation at frequency #1 or #2, would be a trait, while oscillation frequencies #1 and #2 would be the actualization of virtual attractors, a selection of a divergent series that actualizes a certain set of virtual singularities, and the transition between #1 and #2 would be an Event, an actualization of a virtual bifurcator, the selection of a different series of singularities.

THE CREATIVE VIRTUAL

At this point we must introduce an important distinction between static and changing phase spaces, or in our terms between a static and creative virtual. While some simple systems can be modeled by a fixed phase space with a stable set of attractors and bifurcators that are merely "explored" by the system, more complex systems require for their representation a changing phase space in which the activities of the inhabitants of the system change the very nature of the space itself. Stuart Kaufmann of the Sante Fe Institute, for instance, considers the "mutual bootstrap" effect between the "landscape" of a particular phase space and the specific trajectories resident within it. In this way the interactions of actual agents serve to change the virtual field, creating new singularities, new "fitness peaks" or attractors, as in coevolution phenomena such as that of an "arms race" between predator and prey species. Even more challenging to the notion of a fixed virtual is the case in which two systems interact, so that there is a dynamic of dynamics as it were, a veritable explosion of singularities caused by the interaction of ever-changing landscapes. The virtual is thus not static, but constantly self-creating, differentiation as process.

In this way transcendental geophilosophy can provide a consistent materialism without mechanistic reductionism or vitalist essentialism. We must first avoid attributing self-ordering to the rule-bound interaction of elementary components of actual physical systems (mechanism). In Deleuze and Guattari's insistence on maintaining a strict distinction between virtual singularities and the actual system, we see that the virtual is a way of talking about the emergent properties of systems, which are not reducible to

the aggregated results of simple behaviors of elementary particles, but must be discussed in their own terms. On the other hand, Deleuze and Guattari avoid vitalism by avoiding any attribution of an essence to organic life; by insisting on the phenomenon of “non-organic life,” that is, the appearance of phenomena of self-organization and novelty in physical, chemical, and geological processes, they disabuse us of any lingering humanist illusions and insert human affairs squarely in nature, parts of a creative “Earth.” In other words, Deleuze and Guattari exorcize the ghost in the machine, but in so doing leave us with a different notion of machine, that of a concrete assemblage of heterogenous elements set to work by the potentials of self-ordering and novelty inherent in the virtual singularities, the attractors and bifurcators, of the actual system. In this way the empirical and transcendental geophilosophies of Deleuze and Guattari provide us unparalleled opportunities for research, intervention, and creation, for finding a “new earth.”