



The eagle and the flies, a fable for the micro

Keith Woodward*, John Paul Jones III and
Sallie A. Marston****

* University of Exeter
Department of Geography

**University of Arizona
Department of Geography and Regional Development

**SECONS Discussion Forum
Contribution No. 12**

May 2007

**SECONS Discussion Forum
Socio-Economics of Space
University of Bonn
Meckenheimer Allee 166
53115 Bonn, Germany
secons@giub.uni-bonn.de
www.giub.uni-bonn.de/grabher**

Introduction

In his historical article tracing the mathematic derivation of complex spaces in topology, Reinhold Remmert identifies as revolutionary the 1851 doctoral thesis of Bernhard Riemann, wherein the beginnings of what would come to be known as 'Riemannian surfaces' were first glimpsed. Developing a system for mapping the distribution of points upon a complex plane and "based upon the *covering principle*," these surfaces were an attempt to "describe local branching [of points] *topologically*" (Remmert 1998: 205 italics in original). Riemann's text sparked more than a century of innovation in conceptualizing the mutability and fold-ability of spaces, having a driving influence upon mathematicians from Poincaré to Einstein and philosophers such as Deleuze and Badiou. In addition to its historical influence, this work also represented for mathematics what today might be called 'pure theory': for a work so heavily informed by differentials and differentiation, it nevertheless remains fixed upon the generality of the theoretical, giving no attention to the singular – differentiated – specificities of materiality. Remmert explains:

„Riemann's thesis is merely the sketch of a vast program. He gives no examples, *Aquila non captat muscas* (Eagles don't catch flies). Contrary to the *Zeitgeist*, holomorphic functions are defined by the Cauchy-Riemann differential equations. Explicit representations by power series or integrals are of no interest. Formulae are powerful but blind.“ (1998, p. 206)

The appearance of the Latin proverb is telling: a phrase equivalent to the contemporary injunction not to 'sweat the small stuff,' here it suggests that the breadth and concision of Riemann's general theory threatens to short-circuit when faced with the specifics of any situation it endeavors to name. But the character of the two aspects of this problem is one of reciprocity: it is by virtue of the generalizing function of Riemann's theory that it cannot address the specific, the particular, or the situated. *Aquila non captat muscas*. Eagles don't catch flies.

Remmert's reading resonates in many ways with a series of crises that have preoccupied the discipline of human geography for several decades. For the most prominent of these, the dialectic between the general and the particular, we need look no further than the Marxist-ontologist David Harvey and his magnum opus, *Justice, nature and the geography of difference* (1996). Here, the pairing of the general and the particular not only constitutes the fundamental framework for being (and becoming), but also defines the trajectories upon which he sets politics, activism, and social justice. And while there have been a number of works dedicated to exploring – *contra* Harvey – the political specificities inherent in the 'local' or the 'place-based' (Massey 1994, Gibson-Graham 1996, 2002), the dichotomous relation of generality to its particularized others has a hefty historico-theoretical weight – from the 'general' and 'specific' geographies of Bernhardus Varenius, through the idiographic-nomothetic debates of the mid-twentieth century (Hartshorne 1939, 1959; Schaeffer 1953), to the prioritization of the general in the most thoroughly anti-capitalist of Harvey's equations: for resistance to capital to be effective it must be as 'big' as capital (Harvey 1996) – a truly daunting requirement in light of the now standard representation of capitalism as global entity. Harvey contends that, given the generality of capitalism – expressed through globalization and the spread of global capital – militancies that emerge out of the specifics of one's situation ('militant particularisms') will never suffice to mobilize a large enough group of activists to produce positive social change. In effect, by remaining focused upon the politics of locality, would-be activists and revolutionaries remain imperceptible and ineffectual to

the broad processes of global capitalism that soar above them: Eagles don't catch flies.

In the spirit of the topology that Riemann helped refine, we may nevertheless fold this proverb, allowing its points to align differently without changing the general form of its statement. For while it is undeniable that, under Harvey's outline of the logic of capital (1982), the micro-movements of minor forces or bodies appear imperceptible, this may in fact be little more than an operation of capitalism's attendant logic of abstraction. Resisting that abstraction and the transcendental promise of the bird's eye-view, we can endeavor to interrogate the geographic, political and ontological implications of a reciprocal-but-antithetical perspective, paying attention to what might be considered the perspective of the fly. That is, while theories such as Harvey's attempt to mobilize change by appealing to notions of generality and universality, it is the nature of these to pass over specificities that potentially offer critical 'monkey wrenches' that jam up the workings of systemic oppression and exploitation. Most importantly, theory from the perspective of the eagle disregards the intricacies and complexities that go into organizing and mobilizing specific political actions, favoring instead generic procedures. But further, by deploying an aggregative theory of power and treating capital, globalization, or the State as a singular entity, it neglects the multiplicity of alternate political possibilities that fly under the radar of these organisms, which in turn necessarily leaves or passes over gaps that are potentially useful for minoritarian politics (Katz 1996). Indeed, it is only through an operation wherein a certain perspective announces itself as totalizing, systemic, or majoritarian that we can come to abstractly nominate a multiplicity of minoritarian perspectives. Thus while the generalities of the eagle struggle to name specific analytics that never seem to quite fit the situation, micropolitical perspectives such as those of flies are virtually infinite and 'un-catalogue-able', but at the same time offer – to attempt a variation on Derrida – the real materiality of the world. For, as Todd May summarizes it: "Transcendence freezes living, makes it coagulate and lose its flow; it seeks to capture vital difference that outruns all thought and submit it to the judgment of a single perspective, a perspective that stands outside difference and gathers it into manageable categories" (2005, 27).

But what to *do* about those differences and differentiations that are continuously articulated in situated materiality? Frequently, the first cut is to pull out the scientific law-book and begin setting out grids and categories. Much less frequently are there romantic hopes that, through an examination of individual differences, something like trans-human 'essences' will appear. In either case, difference does not enter into ontological consideration itself, for it has no ontological status. Under the weight of the general, difference is the problem to be solved, the messiness that complicates ontological abstractions, concepts or objects from the scientist's gaze. Thus we find that the history of geographic thought is one of 'solving-for-sameness', i.e., finding the correct equation to cancel-out difference. It is precisely this state of affairs that feminist geography, at least from an epistemological standpoint, tried to change. For it was through their *embrace* of difference – now transformed from a problem to be solved into a productive force or (at best) the *thing itself* – that feminists came to generate of a variety of potential spaces.

It was only a matter of time before geographers – feminists and poststructuralists – were making efforts to 'ontologize' this new difference-made-scientific. In so doing, they have attempted to consider the possibilities of a rematerialization of human geography after a decade-and-a-half of linguistically-driven deconstruction and humanities-inspired criticism rooted in the cultural turn. What these latter approaches had in common was a celebration of epistemological inquiry and a near total rejection of metaphysical or ontological consideration. Returning to materiality today means

that we must find ways once again to take ontological questions seriously without at the same time falling back into the privileged and narcissistic phallo-centrism that once guided such investigations. One of the keys to addressing this problem lies within the ontology of 'pure difference' theorized by French philosopher Gilles Deleuze. Not to be confused with Derrida's linguistic notion of *différance*, pure difference describes a world of infinite singularity and variability, where matter is immanently self-organizing. In the remainder of this essay, we offer a concise explanation of this ontology from the perspectives of the flies, and then go on to consider the implications of this grounded viewpoint for the well worn path (that is, the dash or the slash) between the general and the particular, the macro and the micro.

Topology and Difference

Amidst the problems difference poses to the general lie questions about what forms of spatiality might arise from such analyses. Deleuze and Guattari (1987), DeLanda (2002), and Latour (1993) have variously turned to the fields laid out under the banner of topology as a strategy for thinking the 'nature' of space as a differential concept. The former two have attempted this by devising accounts of 'intensive' space, those spaces capable of falling into far-from-stable conditions and that are continuously passing through *gradated* differentiation. This is a difference characterized by ongoing movement-in-variation expressed in differential calculus (Deleuze 1994) and animated, for example, by the variations in surface pressure during cell division (DeLanda 2002). Latour, on the other hand, has examined the role of non/human agency and the capacity of new technologies to make distant spaces appear close and close spaces appear distant (an account that, in the final tally, may differ very little from Harvey's (1990) space-time compression). Our treatment relies upon selective readings of Deleuze, attentive to the challenges that attend to adopting his ontology of 'pure difference' as a rule for science. In contrast to Doel (1999), for example, we emphasize a Deleuze (1994) for whom the 'state of affairs' (i.e., the 'situation') marks the material limit of ontology. Following Spinoza, Deleuze affirms an immanent ontology that requires no transcendental organizing principle or category beyond the state of affairs (which are the articulations of differentiation).

There are two operations at work within states of affairs that, thanks in no small part to Deleuze's adoption of Bergson, allow for a 'becomings' approach to ontology: the virtual and the actual. By 'actual' we mean the very real, complex, and incidental materiality within which we find ourselves constantly immersed, the material articulation, or actualization, of the substances that make up the states of affairs in extension. Corresponding to this, moreover, is intensity or virtuality – the seat of potentiality – in relation to which any situation is an expression of an operation that selects out potentialities to actualize. This, however, is not to suggest a division between virtual and actual wherein a transcendental 'virtual' world precedes or predetermines the world of actualities. Rather, virtuality expresses the relative, *potential* openness that inheres within even the most (apparently) closed of materialities. Even further, though, the extensivity of the actual is first and foremost a characterization of thought subject to the 'involuntary adventure' of acculturation (Deleuze 1994), to abstract standards of measure, to an epistemologico-ethical encounter with the world organized through, for example, modern analytics of the Subject. With regard to these issues in particular, we hear echoes between Deleuze and Guattari (1994) and Butler (1991) in their suggestions that, although pure difference is the 'stuff' of the world, our own cultured, categorized thoughts tend to turn instead toward systems, structures, and strata, at best catching fleeting glimpses during confusing moments of change, crisis, or bifurcation. The implication is that it

becomes literally impossible to institutionalize such an ontology (this is also precisely why they differentiate philosophy from science; see Deleuze and Guattari 1994).

It is perhaps helpful to contrast this with Badiou's (2001) ontology of difference, which, rather than sharing characteristics with differential calculus (as does Deleuze 1994), baldly announces that 'mathematics is ontology' (Badiou 2005), a formulation that makes set theory literally the language of Being. In a maneuver that moves directly contrary to Deleuze's virtual/actual pairing, Badiou retains a separation between Being (axiomatic mathematics) and the state of affairs (what he calls the 'state of the situation') that we witness as grounded actuality. The latter operates through sets that nominally contain an infinite number of *potential* members (think, for example, of the Marxist imaginary of post-revolutionary working class membership). The state of the situation progresses by what is accepted as 'normal' for the membership of the set (thus some will always turn to economic social relations in the last instance). A set, however, always has a void at its 'limit' (because no set is complete or closed), where change is possible through a transformation of the norm (when, for example, raced and gendered exploitation is recognized in addition to classed exploitation). These changes are potentially infinite, but historically rare. Thus Badiou insists that politics are driven not by the repetition of the same but through fidelities to these moments of change (events). Thus, there is room for difference, but not for universalized difference, all the time and everywhere. Such events can be witnessed, for example, in Secor's (2007) research on the affective dimensions of citizen/state relations in Turkey. Citizenship works as a set situated in a specific relation to the state, but as that relation breaks down, the memberships transform in the production of a series of affective relations/responses that were thought to have no necessary connection to civil-state relations.

Attempting to think in terms of spatial analytics, it would seem that a point-set topology, with membership operating through the distribution of neighborhoods over a surface, would be the geographic supplement to Badiou's picture. In many respects, this is a weaker ontological model than Deleuze's, but its benefit (and this is perhaps the reason why Badiou may receive attention from Anglo-American sciences in the future) would seem to be that, unlike Deleuze, it is axiomatic (a return to laws, but with a difference) and therefore imports a fair degree of systematicity, making its functionality and utility much more obvious and regulated for the researcher. According to Deleuze, any science that is 'majoritarian' will inevitably operate through a system of such 'functives' – utilitarian and perspectival stabilizations of difference for the purpose of scientific measurement – that will, it seems, inevitably return to reduction (Deleuze and Guattari 1994). By contrast, a 'minor' science (Deleuze and Guattari 1987) will remain ambulatory and experimental or 'problematic' (Deleuze 1994), but this means it is impossible to predetermine what such a science would look like (if not 'merely' the thick descriptive practices that the spatial scientists left behind). We suggest, however, that, rather than simply give up and turn to the still-too-routinizing axiomatics of Badiou, explorations of site ontology can assist in clarifying – without stratifying – the topological and spatial possibilities open to the minoritarian embrace of difference and variation.

Positions

We thus turn to five positions that set out from the differential ontological framework elaborated above. Less formal than propositions, these guideposts are offered as directional arrows, pointers for geographers to continue to explore the terrain of situated practices enmeshed in and unfolding through social sites.

Position 1: Beware of Transcendent Spatialities. In a recent paper criticizing the concept of scale in human geography (Marston, Jones and Woodward, 2005), we argued against procedures that invoke classical methods of philosophy and science in producing formal typologies and categories that fly over the dense materialities that constitute the field of difference. These procedures, we argued, have produced rigidities in vertical thought that have reified hierarchies of spatiality (local, regional, national, international) such that complex processes seem to come presorted to their appropriate level. At the same time, we cautioned against an emergent network theorizing that, though resistant to strains of vertical thinking, was no less transcendent in its reliance on liberalist fantasies about mobilities, accessibilities, and fluidities. Although both trajectories have in various ways been weakened through the destabilizing forces of structuralism, deconstruction, and poststructuralism, we have noted that – particularly regarding the theoretical and scientific engagements with the scale-concept – there is nonetheless a tendency within the thinking about spatial processes to fall back upon transcendental imaginaries that subtly preempt and guide investigations of various spatial processes. For imaginaries such as scale and its close relative, globalization (see Marston, Woodward and Jones, 2007; Jones, Woodward, Marston 2007), such moments tend to find expression in the modeling of a series of formal spatial scaffolds through which complicated and messy – and always grounded – states of affairs are crammed. Too frequently this is never a clean operation: the state of affairs rarely becomes framed in terms of a scalar (or local-global) operation without being first subject to a kind of analytic surgery, where the great leaps of simplification and reduction required for the production of coherent results necessitates amputations of much of the situation's difference and complexity.

In offering a corrective to this procedure, the flat ontology conforming to the perspective of the flies is conditioned – first and foremost – by the site itself. It requires that we look to the unfolding state of affairs within which situations or sites are constituted as singularities – that is, as a collectivity of bodies or things, orders and events, and doings and sayings that hang together so as to lend consistency to assemblage of dynamic relations. Simply put, rather than proceeding by way of a set of pre-established standards of measure for evaluating what processes are unfolding on the ground – a reductive strategy that tends to overlook differences from site to site in favor of roping them together under the banner of equivalence – we argue that investigations must proceed by an examination of the conditions of the site, approached not as a problem that must fit the conditions of a preordained solution (scale), but instead as a singular (situated, changing) problematic field that contains the conditions of its own solvability (Deleuze 1994). This is not merely to exchange induction for deduction. Instead, our approach retains the variation and complexity that go into the composition of the site. As such, difference – rather than being something that must be controlled in order to arrive at general and reproducible results – becomes a fundamentally productive and active component of the site itself and of any account corresponding to it.

Position 2: What Hangs Together, Works Together. The choice to deal with situated, ontological difference in such a way that it is recognized *and retained* is always and at the same time deeply ethico-political. We have suggested that the site is determined by its hangings together and by both its variations and its coagulations (Marston, Jones, and Woodward, 2005) and these singularly mark both its limit or threshold and its consistency. In this sense, the site resembles – both in terms of its assembly and its processes – Spinoza's onto-ethical characterization of a material body:

„When a number of bodies of the same or of different magnitudes are constrained by others in such a way that they are in reciprocal contact

with each other, or if they are moved with the same or different degrees of speed in such a way that they communicate their motions to each other in some fixed ratio, we shall say that those bodies are reciprocally united to each other. We shall also say that all such bodies simultaneously compose one body, i.e. an individual, which is distinguished from others by this union of bodies." (Spinoza 2000, p. 128)

Similarly, the site is a material assemblage marked by a collective of 'reciprocally united' bodies, but we further affirm that the materiality lending itself to such composition is not limited 'bodies' of the molecular, geological, alopastic, or even planetary sort. While these latter forms are certainly *some* of the bodies with which we are concerned, their material co-operation tends to be primarily affective (the 'constraint' and movement of co-operating bodies expressing reciprocity). We note that, additionally, sites are frequently held together or even delimited by a different, but very material, regime that extends from percepts to sign systems.

In each case, the co-operation of elements composing a site is always a matter of labor, of work. Put in Deleuzian terms, the site as we conceive it is 'machinic' both with regard to its composition and its production. Indeed, the distinction between composition and production can only be an analytic: the product of the site *is* its composition. Thus the work that is *of* the site is the material context *for* the 'stuff' (bodies, doings, saying, and so on) that constitutes its composition. This means that the labor of the site need not be extraordinary: it is an infinity of varying 'micro' processes the analytics of which would resemble the reproductive labor of physics. This is not in any way an attempt to put forward a theory that reduces all relations to physics, but rather to open the characteristics that name the processes and hangings together of *every* site to the always ethico-political question of labor. Recalling Spinoza once more, if the 'ethics' of a body is a question of 'what can it do?', the politics of the site is a matter of the labor that constitutes its composition. But before we can illustrate what this means for the more popular notions of 'politics' (radical, progressive, what have you), it is first necessary to discuss how we might go about 'seeing' sites 'at work'.

Position 3: Making Your Way through Sites. While the flat ontology does not of necessity require new methods of collecting 'data' – e.g., participant observation, ethnographic immersion, close-readings – it does suggest that researchers assume different methodological *stances* with respect to the investigative process. Those accustomed to 'peeling back' layers of context – as in the skins of an onion – in order to identify the core or essence of a problem are faced with an illusionary center. The challenge is how to think methodologically from the *inside*, following the intensities that cut across events and objects as well as the researcher her/himself. Echoing what is by now a popular enough notion – if still much less popular in practice than theory – we attend to Deleuze and Guattari's recommendation to start 'in the middle' (1987), where the onion's dense network of capillaries and baffles collaborate and conspire, exerting all sorts of pressures – precisely the intensive labor that goes into the production of the object, 'onion'. What is this not-at-all singular object if not a mesh of intensities that form the ever present background and foreground through which hangings-together are contextualized and made possible, actual, and real? Unlike the horizontal layers of scalar thought, we encounter milieus crosscut with other milieus and folded onto one another, screens of ever widening contexts of effect and explanation.

Once there, we find that sites, like onions, can be sliced. But notice how little we learn when we use a surgeon's tools to cut through all sorts of relationality, taking

merely the sections we have demarcated, arbitrarily and exactly, as our objects. By contrast, a site-based methodology might be better thought of as a game of pick-up sticks: experiment carefully with the distributions you encounter so as to find what pressures and affects are *working* within and constituting them; test out all the relations; and – whatever you do – do not move too quickly or presumptuously or risk forcing a collapse. As we have noted above, the distributions of relations in a site – no matter how stratified or routinized – are never static; rather, they are matters of continuous variation. Like pick-up sticks, one can never expect to encounter the same distribution, and the number of possible relations is multiplied exponentially, even though one can expect varying repetitions of certain types of force relations. Method-wise, pick-up-sticks is not about finding one's way out, but *worming around* by way of experimentation, testing the various pressures and intensities that go into the site's composition. As a result, research is experimentation, an ongoing process whose results are never a matter of stable states, but rather commentaries on relationality, affects, and conditions of dynamic relation.

Position 4: Flies dine on fallen eagles. There is perhaps nothing more recurrent within debates surrounding the general and the particular, the micro and the macro, nor more common to scalar theorizing, than the invocation of politics and political commitment as a test of the practical value and applicability of social theory. Certainly the most frequent arguments for the centrality of differentiating the micro and the macro and for retaining the scale concept have come from those engaged in the creation of anti-capitalist, anti-racist, anti-sexist, and anti-fascist theoretico-political solutions. In one sense, criteria of this sort are essential, for what might be more important than gauging the applicability of a theory than running it up against the grounded materiality of everyday life? Yet, within some responses to 'Human Geography without Scale' (e.g., Leitner and Miller 2007, Hoefle 2006; see Jones, Woodward, and Marston 2007), we see our critics return repeatedly to a variety of political 'hot' topics meant to illustrate both the utility of the scale concept for political critique and the pressing need to retain scale to map out solutions for political crises. While we do not question these authors' commitments to progressive politics and respect the important cause to keep politics centered within their research, we nevertheless note that too frequently the political can be calcified when pre-treated with a calculus that defines in advance the geographies of thought and action.

There are many examples one could point to, but perhaps the most ready-at-hand is the measurement procedure wherein the possibilities for social change are weighed against the supposed 'size' of the object to be resisted. The obvious favorite in such calculations are those readings of anti-capitalism that suppose that, in order to be effective, oppositional movements need to somehow be as expansive or pervasive as capital. This perspective is not simply that of the academic, for it infuses much of the anti-globalization rhetoric. Consider the 14th and final principle of the World Social Forum:

„The World Social Forum is a process that encourages its participant organisations and movements to situate their actions, from the local level to the national level and seeking active participation in international contexts, as issues of planetary citizenship, and to introduce onto the global agenda the change-inducing practices that they are experimenting in building a new world in solidarity.“
(Approved in São Paulo, April 9, 2001; see: World Social Forum 2002)

Here we find activism intoxicated by the high-flying strategies of global ambitions. But most activists do not need to be reminded that those battles depend on tactics (de Certeau 1984) confronted one site at a time. Seattle, Davos, Porto Alegre: their

intensities relying on networking, planning, and communicating – over the web and cell phones, in offices, hotel rooms, and streets. So in spite of the undeniably good intentions of such globe-talk, activism is always about chipping away at the dynamic, situated conditions of production that circulate within the very social sites where political situations present themselves. To think otherwise is to run the risk of demoralizing radicalism and radical politics.

Position 5: 'They didn't want it good, they wanted it Thursday.' In our last proposition we paraphrase from the late B-movie actor and erstwhile U.S. President, Ronald Reagan who was reported to have delivered this line in response to a reporter's query about the generally bad quality of his films during his career as an actor. Reagan's poor excuse reminds us that the situated or immanent processes – as opposed to floating or transcendent ones – have a certain frugality, texture, and immediacy to them that, rather than predetermining or perfecting them, work with what is at hand. Thus a site is like a 'swarm' of flies: the swarm lacks consistency, and denotes without demarcating – a place-holder for an abstract assemblage whose orientation cannot be described prior to its articulation. The swarm's orientation may be *toward* the corpse of the eagle, but is continuously varying in relation to any number of conditions that cooperate in the site: variations in weather, the movement of a pack of wolves.

The processual bricolage of the site is a matter of dynamic, continuous change, the relative consistency of which is not an issue of maintaining an ideal form or structure, but rather relatively cohering within varying conditions. As a result, situated politics cannot wait, nor can it affirm a series of ideal or transcendental programs. We need only think of the debilitating disciplinary systems in place in social life to recognize that such an un-situated politics is about control. And while we affirm that hardenings and blockages are part of what goes into the composition of the site, the processes that go into the workings of the site, even when heavily routinized, are always anexact. With regard to production, this means that any series of processes are not exactly repeatable, but only approachable. This is a characteristic of Deleuze's popular marriage of difference and repetition.

Sites are nothing novel, they are pervasive relations in which we find ourselves constantly immersed. Thus, it would be a mistake to think of their productions as necessarily progressive or even positive. Indeed, in general, these workings might most frequently be considered processes of banality in which, howsoever we jockey and maneuver, we are, all of us, forever stuck.

References

- Badiou, A (2001) *Ethics: an essay on the understanding of evil*. New York: Verso
- Badiou, A (2005) *Being and event*. New York: Continuum
- Butler, J (1991) *Gender trouble*. New York: Routledge
- de Certeau, M (1984) *The practice of everyday life*. Berkeley: University of California
- DeLanda, M (2002) *Intensive science and virtual philosophy*. New York: Continuum
- Deleuze, G (1994) *Difference & repetition*. New York: Columbia University Press
- Deleuze, G and Guattari, F (1987) *A thousand plateaus: capitalism and schizophrenia. Vol. 2*, Minneapolis: University of Minnesota Press
- Deleuze, G and Guattari, F (1994) *What is philosophy?* New York: Columbia University Press
- Doel, M (1999) *Poststructuralist geographies: the diabolical art of spatial science*. Edinburgh: University of Edinburgh Press
- Gibson-Graham, JK (1996) *The end of capitalism (as we knew it): a feminist critique of political economy*. Oxford: Blackwell
- Gibson-Graham, JK (2002) Beyond global vs. local: economic politics outside the binary frame. In: *Geographies of power: placing scale*. Herod, A and Wright, M (eds.) Oxford: Blackwell 25-60
- Hartshorne, R (1939) *The nature of geography*. Lancaster, PA: Association of American Geographers
- Hartshorne, R (1959) *Further perspectives on the nature of geography*. Washington, D.C.: Association of American Geographers
- Harvey, D (1982) *The limits to capital*. Oxford: Oxford University Press.
- Harvey, D (1990) *The condition of postmodernity*. Malden, MA: Blackwell
- Harvey, D (1996) *Justice, nature and the geography of difference*. Malden, MA: Blackwell
- Hoefle, SW (2006) Eliminating scale and killing the goose that laid the golden egg? *Transactions of the Institute of British Geographers* 31: 238-243
- Jones III, JP, Woodward, K and S Marston (2007) Situating Flatness. *Transactions of the Institute of British Geographers* 32: 264-76
- Katz, C (1996) Towards minor theory. *Environment and Planning D: Society and Space*. 14: 487-99

- Latour, B (1993) *We have never been modern*. Cambridge: Harvard University Press
- Leitner, H and Miller, B (2007) Scale and the limitations of ontological debate: a commentary on Marston, Jones, and Woodward. *Transactions of the Institute of British Geography* 32: 116-125
- Marston, S, Jones III, JP and K Woodward (2005) Human geography without scale. *Transactions of the Institute of British Geographers*, 30: 416-32
- Marston, S, Woodward, K and JP Jones III (2007) Flattening ontologies of globalization: the Nollywood case. *Globalizations* 4: 1-19
- Massey, D (1994) *Space, place and gender*. Minnesota: University of Minnesota Press
- May, T (2005) *Gilles Deleuze: an introduction*. Cambridge: Cambridge University Press
- Remmert, R (1998) From Riemann surfaces to complex spaces. *Séminaires et Congrès* 3: 203-41
- Schaefer, F (1953) Exceptionalism in geography: a methodological examination. *Annals of the Association of American Geographers* 43: 226-249
- Secor, A (2007) Between longing and despair: state, space, and subjectivity in Turkey. *Environment and Planning D: Society and Space* 25: 33-52
- Spinoza, B (2000) *Ethics*. New York: Oxford University Press
- World Social Forum (2002) <http://www.portoalegre2002.org/default.asp> (accessed 11 April 2007)