Reconsidering the Politics of Nature: Henri Lefebvre and The Production of Space*

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1. Introduction

In an earlier issue of *CNS*, Donna Haraway's image of cyborg and Bruno Latour's notion of hybrid were invoked to theorize urban ecology. Corresponding to what Haraway has called "boundary discourses," both metaphors serve to suspend the nature/society dualism by decomposing these global categories and by pointing to entities that are not strictly social or natural. The usefulness of these figures as concepts might be debatable, but they are emblematic of the tensions between the temptations of biological and social reductionism or the difficulties of negotiating debates over the relevance of critical realism and social constructivism. Since then, there have also been overtures to convene conversations between physical and human geographers about the epistemological and ontological divides between their respective fields of study.²

^{*}I wish to thank Stefan Kipfer, Richard Milgrom, Noel Castree, and Andrew Biro for their generous comments on earlier versions of this paper. Needless to say, responsibility for the final result is my own.

¹Stefan Kipfer, Franz Hartmann and Sara Marino, "Cities, Nature and Socialism: Towards an Urban Agenda for Action and Research," CNS, 2, 26, 1996; and Erik Swyngedouw, "The City as Hybrid: On Nature, Society and Cyborg Urbanization," CNS, 2, 26, 1996. On "boundary discourses" and "boundary objects," see David Harvey and Donna Haraway, "Nature, Politics, and Possibilities," Environment and Planning D: Society and Space, 13, 5, 1995, pp. 516-17.

²See, for example, the exchange initiated by Doreen Massey, "Space-time, 'Science' and the Relationship between Physical Geography and Human Geography," *Transactions of the Institute of British Geographers* (*Transactions*), 24, 3, 1999; Jonathan Raper and David Livingstone, "Let's Get Real: Spatio-temporal Identity and Geographic Entities," *Transactions*,

The bifurcation of geography as a discipline is itself suggestive: "space" might serve as a more general boundary discourse that problematizes the complex divisions and interactions between nature and society. Neil Smith's *Uneven Development* is the most sustained treatment, and since its publication the "production of nature" has provided a touchstone of debate about the socialization of nature in the production of space. A decade before the publication of Smith's *tour de force*, Henri Lefebvre's *The Production of Space* first addressed the production of space and the production of nature. Rather than space itself providing a conceptual centering for discussions of the relation between nature and society, it is Lefebvre's *problematic* of the *production* of space that provides a useful point of departure for thinking about space and nature in the politics of socialist ecology.

First, production opens up lines of questioning about the role of natural processes in the production of space and thus about the contested character of the natural and social relations that constitute time-space. As Derek Gregory notes, figures like cyborg and hybrid broach spatial connections between otherwise isolated subjects and objects, but they miss the "power-geometry" through which space-time is produced. Second, the simultaneity of representational and material practices suggested by Lefebvre's three part framework — spatial practices, representations of space and representational spaces — thematizes the contradictory possibilities of the "everyday" and the scales at which these might be understood. One of the challenges posed by James O'Connor's second contradiction thesis is to consider the political sociology of the politics of nature, an issue not taken up in detail in Smith's approach to nature and the production of space. To what extent these considerations imply the possibility of a socialist politics of

^{26, 2, 2001;} Stuart N. Lane, "Constructive Comments on D. Massey," *Transactions*, 26, 2, 2001; Doreen Massey, "Talking of Space-time," *Transactions*, 26, 2, 2001.

³Neil Smith, Uneven Development: Nature, Capital and the Production of Space, 2nd ed. (Oxford: Basil Blackwell, 1990).

⁴Henri Lefebvre, *The Production of Space*, translated by Donald Nicholson-Smith (Oxford: Basil Blackwell, 1991) (*La production de l'espace* [Paris: Editions Anthropos, 1974]).

⁵Derek Gregory, "A Geographical Unconscious: Spaces for Dialogue and Difference," Annals of the Association of American Geographers (Annals), 85, 1, 1995. On power-geometry, see Doreen Massey, "Power-Geometry and a Progressive Sense of Place," in Jon Bird, et al., eds., Mapping the Futures (London: Routledge, 1993), pp. 59-69.

nature depends on the possibility of nature as a co-producer of space and on the scales at which these politics are articulated.

2. Of Cyborgs, Hybrids and Spaces

Not unlike declarations that space has lately emerged as a central problem of contemporary social and political theory and practice, Haraway and Latour observe that cyborgs and hybrids have proliferated to an extent that the characteristically modern division between nature and society can no longer hold — if it ever did. For Haraway, scientific and technological practices influenced by military and capitalist politics have multiplied both the number and extent of the technological mediations between humans and between humans and other aspects of nature. Even while the "modern Constitution" legislates an ontological divide between Nature and Society, Latour contends, scientific practice itself belies the division and generates "quasi-objects" that do not belong exclusively to the social or natural domains. Not only do cyborgs and hybrids render untenable conventional of division between social and natural, but the multiplicity of their interconnections and networks of varying extent themselves deconstruct or problematize the possibility of such singular totalities as nature or society.

There are a couple of interesting dimensions to this. First, in as much as they allow for the possibility of agency on the part of nature, Haraway and Latour signal that nature and society, or natural and social processes, are co-incidental and, in some sense, co-productive. Second, the multiplicity of networked interconnections suggests that preoccupations with nature and society or culture are misplaced. This does not mean that nature and society cannot exist as compositional wholes or heuristic categories, but it does imply that there are multiple practices through which one might discern myriad natures or manifold interactions between social and natural processes. Neither cyborg nor hybrid are substitutes for such global problematics as nature/society, but figures that serve as points of entry into complex networks of natural-social processes. Networks of this sort may be articulated in the language of geography, and Haraway does use mapping as a metaphor. But the temptation is to describe networks along the flat plane of a two-

⁶Donna Haraway, "A Cyborg Manifesto," Simians, Cyborgs, and Women (New York: Routledge, 1991); Bruno Latour, We Have Never Been Modern, translated by Catherine Porter (Cambridge: Harvard University Press, 1993). See also Donna Haraway, "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others," in Lawrence Grossberg, Cary Nelson, Paula Teichler, eds., Cultural Studies (New York, London: Routledge, 1992), pp. 295-337.

dimensional cartography that is difficult to correlate with the complex physical and social topographies of everyday experience: there is no way explicitly to articulate the relative weight or scale at which different processes are implicated in cyborg subjectivity or hybrid quasiobjectivity.

There is, in contrast, an immediate appeal in Smith's explication of the role of the production of nature and of space in the uneven development of capitalism. Smith, too, perceives a persistent nature/society dualism that continues to pervade ideologies of nature. The materialist strategy of taking production as the key conceptual category avoids the dualist trap of idealist understandings of nature. Production in general, as an interchange between humans and the rest of nature, has always been a condition of social life. Neither nature nor society is reducible to the other, but how the interchange has been organized is socially and historically specific. Under the conditions of capitalism, production for exchange has altered both the nature and the scale of the relationship so that, ideologically, nature has been reduced to the status of resource and force of production. The degree to which this occurs is so extensive and intensive as to suggest that nature is quite literally produced. And although the production of nature and the production of space are co-incidental, the production of nature is a condition for the spatial organization of production and the uneven development of the capitalist space economy.

Smith's account deserves a fuller treatment, but for present purposes let a couple of points suffice. Production serves as a way to treat both nature and society within a common analytical framework. Despite the parallel processes of production (of nature and of space), the drift of Smith's argument tends to subsume nature or natural processes to society and social processes. Noel Castree, for example, has observed that the production of nature thesis lends itself to the occlusion of the autonomy of nature, thereby subjecting nature to the status of inert object on which humans work. One might criticize Lefebvre for subordinating nature to space. Yet if the production of space provides a common analytical problematic within which both nature and society may be treated, there is scope to accommodate nature as a co-producer of space. There is another side to this, for Castree also argues that there is a need to problematize not just the divisions between nature and society, but the manner in which they are constructed and construed. And in an influential essay, Margaret FitzSimmons urged geographers to take nature seriously and to deconstruct its reification as a concrete

abstraction.⁷ Since Smith's account is about the uneven geographical development of capitalism, the linkages between the concrete relations and (labor) processes that produce and re-produce the conditions of valorization are not a primary issue. If, however, as suggested by Haraway's and Latour's comments on scientific practice, nature cannot be confined to an abstraction, there is a need also to theorize the multiple scales and concrete practices through which the interactions of nature and society are organized and contested.

In an afterword to the second edition of *Uneven Development*, Smith argues for a need to develop a theory and politics of scale, and since has contributed other assessments. What follows owes something to his comments and call for a "politics of scale," but I wish to suggest that Lefebvre's spatial triad offers something unique to an understanding of the politics of space and scale *in production*. For his part, Smith criticizes Lefebvre's "reproductionist thesis," that is, the concern to theorize the reproduction of capitalism through the production of space rather than to explain the material dimensions of the capitalist space economy. Lefebvre's interest in *The Production of Space* and elsewhere is on *social* space and its contradictions: it is "where the reproduction of the *relations* of production ... is located...." Some circumspection is required to be sure. This article broaches widely discussed issues and concepts in geography. And

⁷Noel Castree, "The Nature of Produced Nature: Materiality and Knowledge Construction in Marxism," *Antipode*, 27, 1, 1995; Margaret FitzSimmons, "The Matter of Nature," *Antipode*, 21, 2, 1989; cf. Ted Benton, "Marxism and Natural Limits: An Ecological Critique and Reconstruction," *New Left Review*, 178, 1989. Nature's role in the co-production of space is also raised by: Derek Gregory, *op. cit.*, pp. 183-85; and Cindi Katz, "Major/Minor: Theory, Nature, and Politics," *Annals*, 85, 1, 1995. For a review of Marxist literature that addresses the "agency" of nature, see Noel Castree, "Marxism and the Production of Nature," *Capital and Class*, 72, 2000.

⁸Smith, op. cit., pp. 169-75; Neil Smith, "Geography, Difference and the Politics of Scale," in Joe Doherty, Elspeth Graham and Mo Malek, eds., Postmodernism and the Social Sciences (London: MacMillan, 1992), pp. 57-79; Neil Smith, "Homeless/global: Scaling places," in Jon Bird, et al., eds., Mapping the Futures (London: Routledge, 1993), pp. 87-119.

⁹Smith, Uneven Development, p. 92.

¹⁰Henri Lefebvre, *The Survival of Capitalism*, translated by Frank Bryant (London: Alison and Busby, 1976), p. 17; see also Henri Lefebvre, "Space: Social Product and Use Value," translated by J. W. Freiberg, in J. W. Freiberg, ed., *Critical Sociology: European Perspectives* (New York: Irvington, 1979), pp. 285-295.

Lefebvre wrote much on a wide range of topics: one runs the risk of taking features of his thought out of context. That said, this is neither an exegesis of *The Production of Space* nor an attempt to read Lefebvre's comments on "Nature and Nature Conquered" back into it: this is meant to draw out themes in Lefebvre's discussion of the production of space that may serve as additional points of departure for further discussion of the politics of socialist ecology. Part of the transformation Lefebvre proposes for historical materialism is to broaden the concept of production.

Much of this will indeed turn on what is meant by production and whether the usage is flexible enough to consider nature a co-producer of space. Production is central to Lefebvre's approach in two crucial respects. First, it offers a critique of Newtonian and Cartesian ontologies that depict space as a static, ahistorical and inert container. Space is instead eminently dialectical and, one might add, highly political. Second, the priority of production constitutes a critique of empiricist and rationalist epistemologies: one cannot know space as a thing, but one can know about its production. This version of dialectics is similar to David Harvey's, in which production entails an interaction with nature through which human knowledge of nature is constituted and changed as nature and humans are transformed.¹⁴ At one level this is about the abstraction of nature that serves as a premise for production; at another it is about the concrete natures encountered in production. What follows then is a discussion of nature, production and scale.

3. Nature's Spaces

The fields we are concerned with are, first, the *physical* — nature, the Cosmos; secondly, the *mental*, including logical and formal abstractions; and, thirdly, the *social*. In other words, we are concerned with the logico-epistemological space, the space of social practice, the space occupied by sensory phenomena, including products of the imagination

¹¹See Rob Shields, Lefebvre, Love and Sruggle: Spatial Dialectics (London: Routledge, 1998); Stuart Elden, "Politics, Philosophy, Geography: Henri Lefebvre in Recent Anglo-American Scholarship," Antipode, 33, 5, 2001.

¹²Henri Lefebvre, *Introduction to Modernity*, translated by John Moore (London: Verso, 1995).

¹³Lefebvre, The Production of Space, p. 128.

¹⁴Harvey, *The Limits to Capital* (Chicago: University of Chicago Press, 1982), p. 103.

such as projects and projections, symbols and utopias.¹⁵

Although *The Production of Space* was concerned primarily with explicating social space, these three fields can be taken to mean that Lefebvre thought that nature was an integral element of a general theory of space. Indeed, his parenthetical inclusion of social in the statement that "(Social) space is a (social) product" intimates that there are simultaneous natural, representational, and social processes implicated in the production of space. ¹⁶ Elsewhere, he notes that nature or natural space is a material condition of social space. ¹⁷ Ecology, Lefebvre claims, can provide only a partial analysis of nature and environmental issues: a politics based on it could never address the more inclusive problem of space and its production. As Rob Shields underlines, Lefebvre's theory of space could not be encompassed within the theoretical fields customarily associated with academic disciplines like sociology or ecology: it addresses the very conditions of possibility of these disciplines — including how we define nature. ¹⁸

There are nevertheless equivocations in Lefebvre's own conception of nature. In statements such as "the whole constituted by 'nature/society'..." he sounds like he is advocating a perspective in which space is constituted by both natural and social processes.¹⁹ At other moments, he utilizes descriptions from ecology to depict a nature that is highly heterogeneous and differentiated and barely, if at all, open to representation as a unified whole.²⁰ In that sense, he regards nature as something like a subject or agent that produces its own natural space. Yet other declarations are more ambiguous: "(physical) natural space is disappearing....natural space was — and it remains — the common point of departure: the origin, and the original model of the social process — perhaps even the basis of all 'originality'."²¹ On one hand, nature embodies principles of autonomy and spontaneity that are not subject to a single logic; on the other, nature appears to be something inert, as though it were reified in a way that Lefebvre insisted should not be the case with space. Thus, nature is present either as a "ground"

¹⁵Lefebvre, *Production of Space*, pp. 11-12.

¹⁶*Ibid.*, p. 26.

¹⁷*Ibid.*, pp. 110, 117, 172.

¹⁸Shields, op. cit., pp. 151, 155; see for example, Lefebvre, Production of Space, pp. 37-8, 368, 413.

¹⁹Lefebvre, The Production of Space, p. 107.

²⁰*Ibid.*, pp. 70.

²¹*Ibid.*, p. 30.

on which social space is constructed, or as a source of "raw materials" from which social space is produced.²² The image suggests that nature is an absolute space, albeit a highly textured one, as though it were a grid over which social space is distributed. In this respect, nature is essentially passive, an object of action.

This reified representation of natural space is reflected in Lefebvre's assertion that the "more a space partakes of nature, the less it enters into the social relations of production."23 Even as Lefebvre allows for nature as a model of difference and creative autonomy, this statement echoes romantic conceptions of a nature that exists outside history and urban space. Nature might persist beyond the scope of the urban, but it is increasingly reduced in its geographical extent as urbanized capital expands. This parallels the cultural tradition that depicts the urban as anti-nature, but is more akin to the suggestion that non-urban, rural or natural, physical spaces are reconstructed and incorporated in the production of urban, social space.²⁴ It is the spatialization of capitalism through urbanization that Lefebvre claims destroys nature.²⁵ To the extent that nature partakes of social space or history, then, it is through the socialization of natural space and the incorporation of nature as a force of production, through the production of nature. Nature might be present, but it is a cultivated or cultured nature.

Lefebvre relies on a distinction between first and second natures that appeals to the intuitive difference between an original or pristine nature that we expect to find in wilderness and one that has been civilized or cultivated and neatly parceled in urban and rural spaces. The attraction of marking this divergence rests on the difficulty of distinguishing between natural and social processes without reducing one to the other. For Lefebvre, it may also rest on the "double determination" of humans' "being," one aspect of which is cultural

²²*Ibid.*, pp. 84, 123.

²³*Ibid.*, p. 83.

²⁴On the subject of the urban as anti-nature, see for example, Ludwig Trepl, "City and Ecology," CNS, 2, 26, 1996; cf. Raymond Williams, Problems in Materialism and Culture (London: Verso, 1980), pp. 67-85; Margaret FitzSimmons, op. cit. On the urbanization of nature, see for example, Thomas Jahn, "Urban Ecology — Perspectives of Social-Ecological Urban Research," CNS, 2, 26, 1996; Juan Martínez-Alier, "The Failure of Ecological Planning in Barcelona," CNS, 2, 26, 1996; Mathis Wackernagel and William Rees, Our Ecological Footprint (Gabriola Island: New Society Publishers, 1996).

²⁵Lefebvre, *Production of Space*, p. 326.

differentiation from nature.²⁶ In practice, this allows for a social or cultural history of nature. In theory, taking capitalist incorporations of nature and the reduction of nature to a passive object as a point of reference, however, risks reproducing the dualistic reification of nature: images of a diminished, but vital original or first nature merely invert capitalist or modernist representations of nature. In spatial terms, the contrast between first and second natures assumes that natural and social spaces are absolute spaces and mutually exclusive. Despite the social history of nature even in urban capitalist spaces, capitalism has not colonized nature in its entirety. In this respect, nature has its own histories and spaces that overlap and inter-penetrate social spaces.

Consider a Canadian case. In Toronto, Canada's industrial and commercial heartland, the valley of the lower Don River was at one time a thriving center of industrial activity. Only if one neglects the spatial practices of Canada's First Nations, it was a natural space transformed into a Victorian industrial landscape, complete with the incorporation of the river as power source and waste receptacle. With changes in the economic geography of production, the valley was vacated by industry and allowed to "go to seed." Nature advanced, as it were, to re-establish the valley as a set of natural spaces of succession ecologies. Latterly, the portions of the upper valley that had been in use as sites of recreation were joined by bicycle and foot trails with this unique space of natural reclamation and urban-industrial sedimenta — an urban ecology. More recently, "restoration" projects have been undertaken to re-produce the "original" ecosystem, at least as it has been imagined in historical hindsight. Sites which had been undergoing already lengthy processes of natural succession were bulldozed to be replanted with plant species that matched a model of static natural space. The unique space produced by the local histories of nature and its complex interplay with social histories was effectively erased.

Lefebvre intimates that urban revolution "calls for the immediate production or creation of something other than nature: a second, different or new nature, so to speak. This means the production of space, urban space, both as a product and as a work, in the sense in which art creates works." If nature's autonomy is lost for Lefebvre, the task is not to restore an Eden that has been paved over, but to create spaces that echo the autonomous, differential spaces of nature. Paradoxically perhaps, Lefebvre also claims that "the Earth appears today as the center around which various (differentiated) spaces are arranged. Once stripped of its naïvely religious and sexual attributes, the

²⁶Lefebvre, Introduction to Modernity, pp. 132-145.

world as planet — as planetary space — can retrieve its primordial place in practical thought and activity." To the extent nature remains a part of the urban revolution, it seems to consist in good measure in the irreducibility of the body and the necessity of reappropriating it as part of a revolutionary project.²⁷ That there remains this potential in socialized, historicized subjectivity is suggestive: nature, if not necessarily in the singular, retains a measure of autonomy and creativity that must be accounted in the politics and the production of these new spaces.

4. The Nature of Production

Lefebvre observes that the conception of production has varied with the range of metaphoric usages to which it has been put. While noting and dismissing Hegel's and other uses of the term, he indicates that there is a fertile ambivalence in Marx's and Engels' usage. First, there is production in the general sense in which social life is produced: "There is nothing, in history or society, that does not have to be achieved and produced." This includes nature, which, "apprehended in social life by the sense organs, has been modified and therefore in a sense produced." Second, there is production as it denotes the fabrication of identical and interchangeable commodities that can be reproduced infinitely.²⁸

Lefebvre's assertion that each society produces its own space may be understood in either sense, or perhaps both.²⁹ In the general sense, society as a composition of social actors stands in as though it were an agent producing a singular space unique to itself. In the more specific sense, the production of space as a commodity renders spaces that are essentially interchangeable with each other. Examples of the latter include housing developments that Lefebvre criticizes for their monotonous sameness. While these might be construed as multiple spaces, they are produced as miniature replicas of capitalist abstract space. Thus, one might read the claim that each society produces its own space as saying that capitalist society produces its own singular space, measured as a geographical spread across the globe: its global extent is its space. Conversely, space is produced according to a unique logic — or as Harvey says of the capitalist historical geography, a "time-space framework defined according to the distinctive logic of

²⁷Lefebvre, The Production of Space, pp. 109, 166-67, 418.

²⁸*Ibid.*, p. 68ff.

²⁹*Ibid.*, pp. 31, 46, 53.

capitalism."³⁰ In either case, the space of a society or the logic that produces it mark the historicity of space.

Between these two dimensions of production, there is a theoretical ambivalence that may permit consideration of nature as a producer of space(s). Strictly speaking, neither sense licenses nature as a producer of space, for Lefebvre distinguishes between produce and create, and product or thing and work (œuvre). Where product denotes replication and interchangeability, work denotes uniqueness and difference. Nature does not produce but it does create unique works. This is in one part a political and rhetorical strategy. For Lefebvre wishes to reserve creation and work as features of the spontaneous and authentic, that is, as aesthetic and/or political activity that is uninflected by the universalizing or homogenizing logic of the capitalist production of space. Places, as particular creations of nature or as unique articulations of urban society, are works of difference that flout the logic of identity and the reduction to abstract equivalences embodied in commodification and the capitalist production of space. In their possibilities, there is a homology between nature and society, at least in so far as humans retain the potential to create differential spaces. Analytically, since "nature does not labor" it does not produce space, or certainly not in the modes through which capitalist social space is produced.³¹ The main obstacle to arguing for a Lefebvrean notion of nature as a producer of space thus lies in the more specific, capitalist commodity, sense of production.

Yet where the production of space, as a process, serves to problematize its ontology and to redress the fetishism and reification of space as an ahistorical container, a similar argument applies to the ontology and fetishism of nature. While Lefebvre states that nature does not *intentionally* create or produce (virtually identical spaces or places), the fruitful ambivalence he finds in Marx's and Engels' usage of production does not require that nature's production be considered analogous to capitalist production. For in as much as the production of social space is also the reproduction of social relations, this reproduction takes place in part through the daily iterations of spatial practices within capitalist society. Considered slightly differently, it is as though the production of (capitalist) spaces is in effect a *by-product* of daily practices that are inflected or colonized by capitalist social relations and the iterated logic of commodity production and

³⁰David Harvey, *op. cit.*, p. 236; see Henri Lefebvre, "Space: Social Product and Use Value," p. 289.

³¹Lefebvre, *Production of Space*, p. 70.

consumption. It is in this general sense of production that nature most obviously would be a producer of space — nature, or natural space, is a composition of natural processes operating at varying scales.

Conversely, Lefebvre also maintains that creation is itself a process.³² If there is in the natural production of spaces a "logic" that may be compared or contrasted with the logic of capitalist production it would appear to be in the "particularizing" effects of natural processes, a logic of difference.³³ Albeit constrained or contained by the social production of space, in one sense the operation of difference is a universal condition of natural space; in another sense it is strictly local in producing places and "beings" or entities, including human bodies. And bodies (and presumably other natural entities) produce their own spaces and imbrications in space.³⁴ Lefebvre asserts that no organism can be viewed in isolation and that each "is reflected and refracted in the changes it wreaks in its 'milieu' or 'environment' — in other words, in its space."³⁵ The implication is that the spaces of nature are not simple spaces but multi-spatial and multi-scalar.

To much the same effect as Lefebvre's comment, David Harvey cites a passage by Richard Lewontin:

We cannot regard evolution as the "solution" by species of some predetermined environmental "problems" because it is the life activities of the species themselves that determine both the problems and solutions simultaneously....Organisms within their individual lifetimes and in the course of their evolution as a species do not *adapt* to environments; they *construct* them. They are not simply *objects* of the laws of nature, altering themselves to the inevitable, but active *subjects* transforming nature according to its own laws.³⁶

To take our Don Valley example again, the natural dimensions of the space are made up of the complex interactions of a variety of flora

³²*Ibid.*, p. 34.

³³*Ibid.*, p. 101.

³⁴See *Ibid.*, p. 70, 170, 195ff.

³⁵*Ibid.*, p. 196.

³⁶Cited in David Harvey, "The Nature of Environment: The Dialectics of Social and Environmental Change," in Leo Panitch and Ralph Miliband, eds., Socialist Register 1993 (London: Merlin, 1993), p. 28. See Richard Lewontin, "Organism and Environment," in Henry Plotkin, ed., Learning, Development and Culture (Chichester: John Wiley, 1982), pp. 151-170.

and fauna, even if it is not under "conditions of their own choosing." A less contentiously natural space like a forest is a complex space whose dynamics are affected by a range of spatial behaviors, from the less than obvious work of nematodes in the soil to the stands of the grand trees whose presence we take to constitute a "forest." Far from nature having been robbed of its creative or productive capacities through the production of social space, *natural spaces* have been, as Lefebvre notes, localized.³⁷ It does not follow that nature does not also *co-produce* space. This nature may not be nature writ large, but nature considered at a more concrete or less extensive scale than an apparently discrete ecosystem: the difference in how we might account for natural processes in the production of space lies in the *scale* of natural entities units we accept as significant — urban wildlife say — and the scales of their perceived effects.

As elsewhere with Richard Levins, Lewontin's argument is against reductionism and notions of linear causality — whether the presumed cause is environment, organism or genes.³⁸ Harvey makes similar methodological observations about the nature and relevance of dialectics to consider the relationship between Marxism and political ecology. According to Harvey, different processes "actively construct space and time and in so doing define distinctive scales for their development." Taken thus, nature is a complex, differentiated and multi-scaled totality. And since "processes, things and systems [which are] relevant at one scale...may not be so at another," understanding the complex interplay between natural and social process requires care in distinguishing the relevant scale or unit of inquiry. Clearly enough, this serves as a critique of the reification or romanticization of a singular, irreducible nature, but this scaling of nature also has implications for what nature one encounters in the production of space. Harvey states that "where my relevant environment begins and ends is itself a function of the ecological, economic, and other processes which are relevant to that."39 That is, one's relationships with nature are not with nature in its totality, but are particular constructions at less extensive scales. Scale, in this respect, is not only a methodological issue, but one of practice as well.

Lefebvre's statement that his examination of the production of space begins with "spatio-temporal rhythms of nature as transformed by

³⁷Lefebvre, *Production of Space*, pp. 95, 123.

³⁸Richard Levins and Richard Lewontin, *The Dialectical Biologist* (Cambridge: Harvard University Press, 1985).

³⁹Harvey, "The Nature of Environment," pp. 35; see also pp. 32-37, 46-47.

a social practice" might be taken as a general indication that this was part of his intention. He practice needs to be unpacked a bit, for there are different practices implied in the production of space as Lefebvre describes it. A person might be engaged in different processes (of production, consumption, reproduction) that entail different relations with nature. Moreover, different people are engaged in different practices and different relations with nature that are structured by social relations—class, gender, race—as suggested by Harvey's reference to social and economic processes. This does not mean that there is not a "whole constituted by nature/society," but it does mean that there is a scaling of processes through which nature is appropriated and interpreted as a co-incidental agent in the production of space. One might bear a relation to nature as a whole by virtue of the social relations that construct an abstract nature, but there are multiple natures, as it were, in both substantive and conceptual terms.

The implications of this for a political sociology of nature consist in the ways in which spaces and scales are articulated — both as practices that define or produce space and scale by selection and differentiation, and as practices through which these are linked within a broader whole. These practices, and the relations on which they are premised, are structured. But they are also historically and politically contingent. Where it is useful to depict forms of resistance to the production of space and nature in the image of capital as an opposition between place and space, the following section adopts a slightly different strategy. It is intended to address differences between processes that are reflected in the contrasts between abstract and concrete, global and local, and the politics of these processes as they are internal to the production of space. If the hegemony of capitalist representations of space and nature is reproduced through the everyday practices of production, it is useful also to consider the possibilities for resistance and the articulation of alternatives here as well as on the terrain of the state.

5. Scale and the Politics of Production

Lefebvre and Smith attend primarily to the global scale of the abstract space of capital — at the level of capital and capitalist space as *concrete abstractions*. As concrete abstractions, however, they not only structure social relations and the production of space but are constructed

⁴⁰Lefebvre, *Production of Space*, p. 117. For an adumbration of rhythmanalysis, see Henri Lefebvre and Catherine Régulier, "The Rhythmanalytical Project" (Mohamed Zayani, intro. and trans.), *Rethinking Marxism*, 11, 1, 1999, pp. 5-13.

or produced by processes operating through spaces at less extensive scales. A burgeoning literature on scale has emerged in human geography. Much of the discussion has centered on globalization and the scales of politics, and some have argued that Lefebvre's writings on the state represent an early theorization of scale.⁴¹ Scale may be treated as geographical extent — body, home or workplace, locality, nationstate, global. As is indicated by a recent exchange about conceptual elisions between space and scale and the manner in which they can be differentiated, however, there are differences of opinion over what else scale might connote.⁴² To some extent this is about whether and how levels of analysis or abstraction may also be regarded as scales, but there are two points on which there is general agreement: geographical scale is produced, and there are different scalar processes. Lefebvre's own allusions to scale in *The Production of Space* indicate a difference in the scales of processes: even if abstract space and its production are global, they are dependent nonetheless on localized spaces and concrete practices for their reproduction.⁴³ Although Lefebvre did not draw the link in this way, there is an obvious parallel in the co-incidence of the labor and valorization processes in capitalist production, simultaneous in space but different in scale.

It is a commonplace that Marx characterized the labor process as a metabolic exchange between humans and nature.⁴⁴ This is not a simple relationship of course: relations with nature are organized socially and therefore politically contingent and historical. Considered in terms of scale, the labor process (and the material production of space) is in

⁴¹For a useful survey, see Neil Brenner, "The Urban Question as a Scale Question: Reflections on Henri Lefebvre, Urban Theory and the Politics of Scale," *International Journal of Urban and Regional Research*, 24, 2, 2000. On Lefebvre, Neil Brenner, "Between Fixity and Motion: Accumulation, Territorial Organization and the Historical Geography of Spatial Scales," *Environment and Planning D: Society and Space*, 16, 4, 1998; Neil Brenner, "Global, Fragmented, Hierarchical: Henri Lefebvre's Geographies of Globalization," *Public Culture*, 10, 1, 1997.

⁴²See the exchange between Sallie Marston and Neil Brenner: Sallie Marston, "The Social Construction of Scale," *Progress in Human Geography*, 24, 2, 2000; Neil Brenner, "The Limits to Scale? Methodological Reflections on Scalar Structuration," *Progress in Human Geography*, 25, 4, 2001; Sallie Marston and Neil Smith, "States, Scales and Households: Limits to Scale Thinking? Response to Brenner," *Progress in Human Geography*, 25, 4, 2001.

⁴³Lefebvre, *Production of Space*, p. 366; cf. pp. 341-42.

⁴⁴Karl Marx, *Capital: Volume One*, translated by Ben Fowkes (New York: Vintage, 1977), p. 283.

important respects local and particular. As simultaneously a valorization process of production for exchange, however, the labor process and the "natural relations" constituted in it are inflected or structured by class relations that are more general or global in scale. At one level, these natural relations and the co-production of space reflect the reification of nature as a concrete abstraction and its incorporation into the abstract space of capital. In engaging a politics of space at this level, a class politics can thus problematize the representation of nature and the historical relation between society and nature, that is to say, the modes of producing space. At another level, these natural relations and the concrete (labor) process of producing space are not necessarily exhaustively contained by the valorization process and the social relations that subtend it. Michael Burawoy distinguishes between the relations in production associated with the labor process and the relations of production that correspond to the valorization process.⁴⁵ Neither is reducible or identical to the other. The question it raises is the relationship between the different scales of these processes and how this relationship is organized or articulated, not just by capital and the politics of state regulation but by the organizational and political practices of workers as they contend with capital at these different scales.

Lefebvre's problematic of the everyday may be regarded as an effort to conceptualize the relationship between the general scale of social relations and the particular daily patterns of life under capitalism. Rendered in spatial terms, it is composed of a threefold field of moments: "spatial practices," "representations of space" and "representational spaces" (also translated as "spaces of representation"). 46 Spatial practice is associated with "perceived space" in which there is "a close association...between daily reality (daily routine) and urban reality (the routes and networks which link up the places set aside for work, 'private' life and leisure)." Representations of space are emblematic of the "conceived space" that enact the plans and practices of planners, engineers and technocrats who represent space abstractly through linguistic and visual codes that are "tied to the relations of production and to the 'order' which those relations impose...." Representational spaces are often interpreted as aesthetic practices that, in contrast to representations of space, embody a "lived

⁴⁵Michael Burawoy, *The Politics of Production* (London: Verso, 1985), pp. 13-14, 32-35.

⁴⁶Cf. Andy Merrifield, "Henri Lefebvre: A Socialist in Space," in Mike Crang and Nigel Thrift, eds., *Thinking Space* (London: Routledge, 2000), p. 176.

space" that is more autonomous and "directly lived through its associated images and symbols."⁴⁷

Just what is the relationship between these three moments is open to interpretation.⁴⁸ They may be represented as more or less discrete, but practically they are intertwined in daily practice and in their theoretical and political implications. The *material* practices of the production of space, spatial practices, are already mediated or framed by interpretation: they embody representations of space and provide for the possibility of representational spaces. If these three moments are simultaneous in space and time, there are allowances for differences in scale: representations of space most obviously correspond to the global production and homogenization of capitalist space; representational spaces represent the kinds of local difference and uniqueness that are not accessible to or which elude representations of space. Spatial practice, however, "simultaneously defines: places — the relationship of local to global; the representation of that relationship; actions and signs; the trivialized spaces of everyday life; and, in opposition to these last, spaces made special by symbolic means as desirable or undesirable, benevolent or malevolent, sanctioned or forbidden to particular groups."⁴⁹ Contradictions and correspondences — global/local, universalizing/differential — come together, as it were, in spatial practices.

Certainly with the simultaneity of the valorization and labor processes in capitalist production, representations of space are embodied in the material, spatial practices of production. In this respect, capitalist representations of nature as a singular, passive entity are likewise reproduced in the mundane activity of work. To offer two ways of conceiving possible representational spaces that reflect the autonomous creativity of natural and social lives, and which also allow for political alternatives, there are disruptions in the logic at the level through which space is materially produced. First, knowledge of space, or of nature, depends to some degree on how one is positioned within the socioecological processes in the production of space. Inflected on the one hand by social relations and on the other by natural relations, it is what

⁴⁷Lefebvre, *Production of Space*, pp. 38-39; see also p. 33.

⁴⁸Cf. Shields, op. cit., pp. 120-121; Edward W. Soja, Thirdspace (Oxford: Blackwell, 1996), pp. 53-82; David Harvey, The Urban Experience (Oxford: Blackwell, 1989), pp. 261-265; Andrew Merrifield, "Place and Space: A Lefebvrian Reconciliation," Transactions, 18, 4, 1993, pp. 516-531.

⁴⁹Lefebvre, *Production of Space*, p. 288.

Haraway calls "situated knowledge." Because it is structured by social relations and the logic of the valorization process, this knowledge is not unproblematic. But differences in the labor process entail differences in the interactions of socially situated humans and socially imbricated nature. At this level, nature is less an abstraction than a range of scaled, concrete natures that differ with class location, for example, and the type of productive activity. It is these differences that offer the possibility of different interpretations of nature and of alternative ways of articulating or producing socio-ecological space.

Second, in addition to theorizing the multiplicity of spaces as products of capitalist production of space, Lefebvre notes the persistence and presence of plural places that are not exclusively products of abstract space. Such places are permeable and "intercalated, combined, superimposed — they may even sometimes collide."51 Thus, as feminist and post-colonial geographies contend, gendered and racialized spaces are produced in addition to those conforming to capitalist imperatives. In much the same way as class difference affects representations of nature and allows for alternative representational spaces, we can allow for similar kinds of positioning along gendered and racialized relations of difference. If so, there are sideways modalities through which spaces of different types are articulated — between the gendered places of work and home, between the racialized geographies of productive activity. None, whether marked by class or gender or race, are necessarily discrete, but permeable to the dominant structuring logic of the others. Here, too, there is no necessary relationship between these different kinds of spaces. In fact, their differences open up further possibilities for political strategies that (re-)articulate the social and natural relations and processes through which they are produced.

A couple of observations may be made. First, there appears to be an obvious connection between the autonomy of nature's creations and the social creation of unique spaces (or places). Resistance in the workplace, for example, *might* be about nature as much as about the body, either directly as a force of nature or as an analogy to nature's creativity. Second, representational spaces pre-figure the *differential space* that Lefebvre counterposes to the homogenizing logic of capital and the production of abstract space. The intercalation of spaces provides for creative combinations. To the extent that nature figures as a counterpoint to abstract space and as a model for autonomous activity and representational spaces, the attraction of aesthetic forms of

⁵⁰Haraway, Simians, Cyborgs, and Women, pp. 191-98.

⁵¹ Lefebvre, Production of Space, p. 88.

resistance seems obvious enough. It is a sentiment confirmed by Lefebvre's lecture on "Nature and Nature Conquered." Yet he notes that the reappropriation of nature also entails an ethical dimension.⁵² Ethics are not politically innocent of course. That is, the hegemony of capitalist representations of space and nature are not only aesthetic or cultural (although they are surely that), but politically organized and contested.

It goes without saying that this organization is carried out to considerable degree on the terrain of the state. On the one hand, the neoliberal "globalization" agenda and the concomitant politics of deregulation are a strategy for reorganizing the relationship between the global scale of production and exchange and the localized conditions of production. It is a "rescaling" of the state, as Brenner suggests.⁵³ On the other hand, local political struggles can "jump" the scales represented by levels of the state to identify less mediated links between local conditions and the global forces that structure them.⁵⁴ As far as the relationship between the labor and valorization processes is concerned, recent contributions by Andrew Herod have stressed labor's production of its own spaces and scales.⁵⁵ Much of this is mediated through the state, to be sure, but labor has its own bargaining and organizational strategies that scale the relationship differently.

Perhaps a brief sketch will illustrate. Since the 1970s, relations between the Industrial Wood and Allied Workers (representing loggers and mill workers) and environmentalists in British Columbia (BC) have been quite contentious. Some of the disappointment for environmentalists has been the union's defence of the province's postwar forest policy of "sustained yield" — the spatial practices of awarding large scale, long term rights to timber (called tenure) over most of state-owned forest lands to large scale forest capital, and of clearcutting to make way for even-aged stands of trees — in exchange for promises of job security and community stability. For their part, these forest workers are frustrated with what they see as an anti-social representation of the forests, and with the apparent lack of regard for the political and industrial struggles they have waged to influence the nature of their work.

⁵²Lefebvre, *Introduction to Modernity*, p. 142.

⁵³See for example, Brenner, "Between Fixity and Motion" and "Global, Fragmented, Hierarchical," op. cit.

⁵⁴Smith, "Homeless/global," op. cit.

⁵⁵See Andrew Herod, Labor Geographies: Workers and the Landscapes of Capitalism (New York: Guilford, 2001), pp. 102-127.

Considered in spatial terms, the union's policies iterate capitalist representations of forest spaces, abetted by a construal of the forest as a discrete work place that is premised on a neat division between the spaces of work and politics, and the scales of resistance and struggle over the labor process and the political economy of the valorization process. This labor geography has been contested and variable, but when sustained yield was being debated and introduced in BC between 1946 and 1948 the union articulated these spaces and scales differently. It argued for a state forest corporation administering smaller scale tenures, bans on clearcutting, and re-investment in local industries policies echoed today by environmentalist support for community-based tenures, selection logging and value-added wood products manufacturing. In the immediate post-war period the union drew direct links between the destructiveness of forest practices for both forest workers and the forests, on the one hand, and the features of capitalism that drove these unsustainable practices on the other. The social organization of production and how nature figures in the production of space, that is, are subjects of political strategy.

6. Concluding Comments

It is useful to return to Lefebvre's own conclusion that space "is becoming the principal stake of goal-directed actions and struggles." By design or default, struggles in and about space implicate questions about what is nature and how it does or will figure in the production of new kinds of space. This applies as much to the politics of urban space as it does to the politics of forestry and wilderness in North America. As a question of ethics, it is not only about an abstract or composite nature against which to judge modern practice or to assess the form and impact of natural limits. Certainly it is these, but it is also about the concrete and multiple natures with which humans interact to produce space. For no one has a monopoly over the concept of nature. The ethic and practice of difference counterposed by Lefebvre against the homogenizing, totalizing logic of capitalism accommodates the possibility of these multiple, social natures.

Lefebvre maintains that class struggle is central to generating difference of this sort, and that the mobilization of difference into a single movement is necessary to confront capital at this scale.⁵⁷ At one level, this conception of difference serves as a critique of the multiple ways in which capital subjects and dominates nature and humans.

⁵⁶Lefebvre, *Production of Space*, p. 410.

⁵⁷*Ibid.*, pp. 55, 64.

Strategically, if we accept that there are different and multiple natures, and differences in the spaces and scales through which space is produced, it also suggests that some attention must be paid to the concrete practices and relations through which these spaces are constituted. This applies both in critiques of the representations of space embodied in them, and in discerning the manifold aesthetic and political possibilities and resources in representational spaces. A socialist ecological politics of space and scale is not a call to identify with a nature, then, but a practice and a call to arms in a project to appropriate nature differently and to produce a space that is unique in its expression of creative potential.