

## **THE LIMITS OF ECO-LOCALISM: SCALE, STRATEGY, SOCIALISM**

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The shadow cast by neoliberalism over the prospects of the Left in the current period has been unrelenting. A few rays of hope have broken through with signs of a resurgence of the Latin American Left, the defeat of the Nepalese monarchy, and a number of specific campaigns, both local and global, in opposition to the privatization of basic services. But scepticism about universal projects and collective struggles for societal transformation – a scepticism reinforced by theoretical antagonisms toward integrative paradigms – remains entrenched even on a broadly defined Left, where the embrace of more socially limited and spatially local projects has replaced revolutionary ambitions.

This embrace of the local has a wide variety of sources – and supports. The World Bank, for instance, is representative of the neoliberal case for localism in contending that ‘the political objectives to increase political responsiveness and participation at the local level can coincide with the economic objectives of better decisions about the use of public resources and increased willingness to pay for local services’.<sup>1</sup> It also has a significant place in social democratic ‘third way’ thinking, epitomized in Richard Florida’s best-selling policy manual for the knowledge economy, and its rejection of theses of urban decline. The urban ‘turnaround’, Florida claims, ‘is driven in large measure by the attitudes and location choices of the Creative Class’ which makes cities competitive. This class can be attracted by governments that furnish it with a supportive infrastructure – a suitable lifestyle environment, urban revitalization, educational institutions. ‘Urban centers have long been crucibles for innovation and creativity. Now they are coming back’.<sup>2</sup>

The attraction of the local has also been marked on the radical Left, reinforced by the demise of the ‘national projects’ of social democracy and authoritarian communism, and revolutionary disappointments in third world states. Local resistance and community alternatives to the competitive imper-

atives of the world market have figured prominently in the demands of the anti-globalization movement, notably in the call of the International Forum on Globalization for ‘discriminating actively in favour of the local in all policies’.<sup>3</sup> Robin Hahnel’s important canvas of participatory economics concludes with ‘living experiments in equitable cooperation’ that are found in local exchange and trading systems (LETS), locally networked cooperatives, and local participatory budgeting.<sup>4</sup> And Mike Davis ends his provocative assessment of twenty-first century global urbanization sceptical of the claims that a new politics of ‘multitudes’ is ascendant at the global level. Instead, he argues, historical agency is now decidedly local: ‘[i]ndeed, the future of human solidarity depends upon the militant refusal of the new urban poor to accept their terminal marginality within global capitalism’.<sup>5</sup>

The case for political action focusing on the territorial scale of the local (and sometimes at the scale of ‘the body’) has been especially characteristic of the ecology movement. The political slogans that the ‘greens’ have contributed to the Left – ‘think globally, act locally’, ‘reduce, reuse, recycle’, ‘walk gently on the earth’ – are especially representative of the localist emphasis of their socio-ecological practice.<sup>6</sup> The American Green Party in 2000, with Ralph Nader running for President, put forward the following position:

Centralization of wealth and power contributes to social and economic injustice, environmental destruction, and militarization. Therefore, we support a restructuring of social, political and economic institutions away from a system that is controlled by and mostly benefits the powerful few, to a democratic, less bureaucratic system. Decision-making should, as much as possible, remain at the individual and local level, while assuring that civil rights are protected for all citizens.<sup>7</sup>

And in a recent manifesto emerging from the British Green Party, localization is invoked as a panacea to virtually all societal ills:

Economic localisation provides a political and economic framework for people, local government and businesses to diversify their own economies. It does not mean a return to overpowering state control – merely that governments provide the policy framework to promote rediversification. Crucially, this will increase community cohesion, reduce poverty and inequality, improve livelihoods, promote social provision and environmental protection and provide an all-important sense of security.<sup>8</sup>

The case for the ‘local’ as the scale appropriate for launching projects of socio-ecological transformation would appear, from such a broad consensus, self-evident. And the case for it would certainly seem to be reinforced as contemporary capitalism continues to foster an urbanization process of world historical proportions. Half the world’s population is now urbanized, with mega-cities the size of Mexico City, New York, Tokyo, Mumbai and Cairo now forming in all corners of the globe. There is every reason to expect that the current rate of growth of urbanization (twice the rate of growth of the world’s population) will continue. Few cities anywhere are not facing ecological challenges, such as waste and water management, transportation gridlock, and public health concerns over old and new viral epidemics, on an unprecedented scale.

These problems pale beside the emergent urban ecological scourge of a global slum population now estimated at 1 billion people (the UN projects a growth to 1.4 billion by 2020). These slums – clusters of ramshackle dwellings sprouting on toxic waste sites, mountain slopes and flood plains – are haunted by basic ecological problems such as open sanitation, inadequate or no water supplies, and much else. Some 3 million people are estimated to die annually from urban air pollution, primarily generated from the burning of fossil fuels that are also contributing to greenhouse gases; another 1 million die from indoor air pollution from the gases released by the burning of biomass fuels.<sup>9</sup>

There is every reason to conclude that neoliberal globalization will continue to bequeath such gifts to city life. As neoliberalism has come to dominate the global market and regulatory framework its institutionalization and logic has fuelled developments in agriculture that drive rural people into these slums, while at the same time fostering inter-local competition to reduce wages and environmental regulation. This also means, however – especially when we remember that most urban life on the planet bears no resemblance whatever to Richard Florida’s image of yuppified city centres for the ‘creative class’, that the burden that ‘the local’ carries in strategies for a pro-sustainability, anti-neoliberal (and even an anti-capitalist) agenda is enormous. If ‘place’ and ‘local space’ are where the ‘tangible solidarities’ necessary to build an alternate way of life, and an anti-neoliberal politics, must form, then we cannot avoid confronting the systematic obstacles that have to be overcome in realizing such a project. Claims that sustainable local ecologies can serve as the foundation for political action and social alternatives at least require careful scrutiny.

## THE VARIETIES OF ECO-LOCALISM

The ecology movement has always entertained a broad range of visions that offer more eco-friendly economies than industrial capitalism: from green capitalism and the eco-modernization of reforming markets, to deep ecology and eco-feminist images of small-scale and spiritual reconstructions, to the projects of anarchist social ecology and eco-socialism dependent upon new systems of property. If there is one element in such diverse ecological thought that emerges foremost, it is the primacy of localism as the central strategic focus.

The early texts of the modern environmental movement, from Rachel Carson's *Silent Spring* (1962) to Garret Hardin's 'Tragedy of the Commons' (1968), the Club of Rome's *The Limits to Growth* (1972) and *The Ecologist's 'A Blueprint for Survival'* (1972), are filled with references to limits, small-scale production and self-sufficiency.<sup>10</sup> Although none of these founding contributions laid out an explicit strategy for localism, it was the logical corollary of their central concerns about the earth's 'carrying capacity' in face of the forces of industrialism driving resource usage and population endlessly upwards. Few early theorists were as important, however, as E.F. Schumacher's *Small is Beautiful* (1973) in making localism both a virtue and a socio-ecological strategy. From the 1950s on, Schumacher began to question, along democratic, egalitarian and ecological lines, the kind of development that was taking place, and the technologies being applied, according to the singular 'logic of industrialism' that pervaded both capitalist and Soviet economies. These were inappropriate, he argued, for growth, ecology and community. Whereas a critic of this singular logic like J.K. Galbraith proposed constructing countervailing institutions to the industrial society's 'technostructure', but at the same highly centralized level, Schumacher argued for smaller, people-centred, ecologically sustainable ways of living, with growth and size displaced from the centre of socio-economic life. As he famously put it:

From the point of view of Buddhist economics, therefore, production from local resources for local needs is the most rational way of economic life, while dependence on imports from afar and the consequent need to produce for export to unknown and distant peoples is highly uneconomic and justifiable only in exceptional cases and on a small scale. Just as the modern economist would admit that a high rate of consumption of transport services between a man's home and his place of work signifies a misfortune and not a high standard of life, so the Buddhist would hold that to satisfy

human wants from faraway sources rather than from sources nearby signifies failure rather than success.<sup>11</sup>

While Schumacher's promotion of 'Buddhist economics' did not travel well, the conceptions he advanced of appropriate technology and localist development were widely taken up, and soon multiplied into a whole host of alternative projects and ideas for community, cooperative and neo-artisanal development that have since become integral to green political economy (and, indeed, green lifestyles). Two signal interventions by Barry Commoner and Herman Daly reinforced this development, and shifted the question from scale in general to an issue of sustainability from a *material* point of view.<sup>12</sup> Commoner rejected the barbarism of the 'lifeboat ethic' involved in accepting the limits of the earth's carrying capacity in relation to population. His concern was with the type of science and technology that was supporting economic growth based on toxics and synthetics rather than natural products, and he issued a political challenge to the elites who controlled these technologies and disproportionately benefited from this growth, and who stood in the way of a change in techniques to eliminate pollution. For Daly, the answer lay in a 'steady-state economy' with low or no growth, so as to directly reduce 'material throughputs', particularly of matter and energy; this would address at its source the disorder produced by high-entropic emissions.

These varied warnings on the limits to growth generated a series of reformist attempts to show that capitalist growth and sustainable ecology could be made compatible, given an appropriate policy and market context. The Brundtland Report (1987) was an important – if ambiguous – marker in green thinking, and represented – and to a degree still represents – a synthesis of ecological reforms consistent with capitalist development. It defined sustainable development as 'meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs'. In thus raising the issues of both needs and limits in its search for the kind of economic growth that would also sustain resources and communities, the Report made a range of development proposals in which greater decentralization, self-help and self-reliance figured centrally, pleading for greater focus on small-scale development projects within sustainable ecologies, and calling for 'city governments [to] become key agents of development'.<sup>13</sup>

But the consolidation of neoliberalism in political and policy frameworks at virtually all scales of governance by the early 1990s meant the Brundtland Report found no easy passage from discursive agenda to actionable policy. Any minimal 'green consensus' it could have said to have captured disap-

peared, although some of the sustainability programme became absorbed into the neoliberal market consensus forming in the international economic institutions through the 1990s (as was visible in the Kyoto Accord).<sup>14</sup>

The current spectrum of ecological thinking is heavily influenced by the emergence of ‘green commerce’ and the embrace of market solutions across wide swaths of the ecology movement, in both thought and action. Several positions especially merit attention for their localist programmes – and level of support. The most pervasive neoliberal strand of social thinking today is what can be termed *market ecology*. From Friedrich Hayek through Milton Friedman, neoliberalism had little concern with ecology, at any scale of activity, except to argue that markets are better allocators of resources than states, and that prices will effectively signal natural scarcities, drawing in new supplies and conserving existing ones, to restore a natural and social equilibrium.<sup>15</sup> But ‘market ecology’ has emerged as a powerful strain of thinking, whose influence has spread from ecological sceptics to virtually all the leading environmental NGOs, from Friends of the Earth, to Greenpeace to the Sierra Club, including market ecology measures in their policy campaigns. Faith in capitalist markets, it would seem, has become all pervasive.

Markets are foundationally decentralized and place-based regulators of human activity in that the behaviour of sellers and buyers is regulated by prices they individually accept. To some degree, markets are the ideal ‘think globally, act locally’ solution in that prices are transmitted across space to equilibrate all markets, information flowing from local markets to aggregate markets and back again. In the words of Earthscan’s 1989 agenda-setting *Blueprint for a Green Economy*, such pricing would allow for ‘the potential complementarity of growth and environment’. In policy terms, this is the need to ‘create markets in previously free services’, such as air or water, or access to parks and beaches, and to ‘modify markets by centrally deciding the value of environmental services and ensuring those values are incorporated into the prices of goods and services’.<sup>16</sup> With all commodities marketized and all costs of production including externalities factored in, market prices would compel individuals and firms to adjust ecologically irresponsible behaviour and regulate scarcity. By decentralizing environmental regulation to the markets where prices are set, it becomes feasible (as neoliberalism has sought to do) to abolish extensive enforcement authorities such as state regulators and planning agencies.

Market ecology has also typically advocated discrimination in favour of smaller, locally-based capitals (and in this sense offers an alternative to the neoliberalism of big corporations and governments). David Korten, for example, argues that in the case of local business ‘the social and environmental

costs associated with an investment are more likely to be visible to and to some extent shared by investors and their neighbours'.<sup>17</sup> Paul Hawking and Jonathan Porritt make similar cases for greasing the wheels of commerce through locally-embedded micro-enterprises.<sup>18</sup> It is contended that the local enterprises are more likely to conserve and utilize local resources sparsely, thereby preserving ecological diversity while maintaining more sustainable economies. This is part of a more general tendency of ecologists to treat the environment as a kind of 'natural capital' that has been accumulated, and that should, therefore, be commodified, priced, traded and taxed to yield its greatest value (i.e. its preservation).

Another contemporary project, which can be termed *ecological modernization*, adopts many of the instruments of market ecology, such as green taxes and incentives, to transform firm behaviour in making a transition to a more sustainable economy. But it also urges the need for wider technological and organizational transformations.<sup>19</sup> The substitution of resource-using and pollution-generating techniques by resource-saving and pollution-reducing ones is proposed as part of a lengthy green agenda that includes 'retro-fitting' the built environment, the reduction of automobile usage, 'soft energy' and local organic agriculture, to name just a few items. Ecological modernization encompasses both the transformation of the ecological structures of large firms and economic policy alternatives for developing community-based green industry. These are conceived so as to move beyond 'internalizing externalities' and advance toward an 'eco-efficient' transformation of the whole built environment. This leads directly to 'green city' projects for extending public transit, 'green-belted' urban sprawl, simultaneously increasing both urban density and urban green-space, and so forth.<sup>20</sup> This strategy is supported by environmental governance measures such as industrial conversion subsidies, research and development support and corporatist sustainability partnerships.

Ecological modernization often also embraces a contentious thesis: that the 'information society' is potentially 'dematerializing' the organizational logic of industrialism, as eco-responsible technologies are adapted and production and work are reorganized. Lester Brown, in his *Plan B 2.0*, argues that the economic imperative meshes today with ecological ones to 'de-materialize the economy'. This requires 'the creation of an honest market, one that tells the ecological truth' – which is, above all, that the new ecological industries provide 'the greatest investment opportunity in history'.<sup>21</sup> Dematerialization will also, it is claimed, allow the reconfiguration of cities, as new energy options and tele-work recast the possibilities and meaning of the local. In ecological modernization thinking, this eco-transition involves no necessary

transformation of social relations, apart from an adaptation to soft-energy paths and a reduction in the scale of the technique and the exchanges associated with the new environmental and informational technologies, while output continues to grow.

Of course, many thinkers and activists reject the reformism of ecological modernization, as well as market ecology, for failing to register the inconsistency between capitalist imperatives for growth and ecological sustainability. Perhaps the foremost project that envisages a different sort of localism today is that of *social ecology*, which has strong roots in the traditional anarchist (or liberal) invocation of direct democracy (or community), in the form of extensively (even if never completely) self-reliant communities. Social ecology is often associated narrowly with the eco-anarchist thought of Murray Bookchin. But it really encompasses a host of approaches that are thoroughly localist in their views and rest on some mix of community and cooperative economics, semi-autarchic trade, local currency systems, and direct democracy in enterprises and local government. In this sense, social ecology also encompasses key anarchist tendencies in the anti-globalization movement like those of Naomi Klein and Jose Bove, but also of bio-regionalists like Vandana Shiva and Kirkpatrick Sale. In this vision, ecological balance is restored within decentralized communities by the need to find local solutions, eliminating at once both negative externalities and resource over-usage, as well as the disastrous effects of mass-production industrialism (whatever the property system underpinning it). In a decentralized 'relatively self-sufficient community', Bookchin asserts, 'there would doubtless be many duplications of small industrial facilities from community to community, [but] the familiarity of each group with its local environment and its ecological roots would make for a more intelligent and more loving use of its environment'.<sup>22</sup>

In the era of neoliberal globalization, the social-ecology vision of down-scaling and bio-regional self-sufficiency/integrity has spread widely. Community development projects of all kinds propose alternative systems of production and exchange, some of which are born out of a desperate need for basic provisions, while others grow out of support networks for using local resources to counter the internationalization of commodities and capital. This vision has intertwined with anti-free trade strategies. The former Greenpeace campaigner Colin Hines's *Localization: A Global Manifesto* promotes the reduction of scale in market exchanges, with the optimal size of economic communities depending upon their ability to balance economic self-organization, sustainability and the provision of goods.<sup>23</sup> The shrinking of long-distance trade and supply chains would also constrict mass production and compel production diversity. Recognizing that if localization is re-

ally to work as a process of eco-transition its mechanisms need to be specified, Hines advances a programme for a range of controls over transnational capital (but not its socialization), alternative investment codes and Tobin taxes, preferential tax structures, aid policies for self-reliance, and community regeneration.

This approach differs from that of other social ecologists whose goals – local self-governance, self-sufficiency, bio-regionalism – are more immediate, as are their political means – direct action aimed at establishing artisanal and other appropriate technologies, alternate markets, the redefinition of needs, the preservation of peasant economies, seed diversity, local currency systems, ‘getting off the grid’, and so on.<sup>24</sup> Implicitly or explicitly accepting that markets may be necessary for organizing socio-economic life, the social ecology approach assumes that locally eco-responsible community markets can displace eco-irresponsible global ones – even in the era of neoliberalism.

#### THE LIMITS OF ECO-LOCALISM

The green case for localism, then, rests on a critique of the existing resource-intensive and pollution-extensive system of industrialization. That system is seen, for the most part, as existing independently of the specific market system and social-property relations of capitalism, and thus as being amenable to transformation within that system to more ecologically-sustainable development trajectories.<sup>25</sup> This is the case even for social ecologists of an anarchist tendency who, just as Marx accused Proudhon of doing, tend to separate the system of production from the property system and, in turn, from the social relations particular to capitalism. The foundational green critique of modern capitalism and the bedrock of the eco-localist case is the abuse of scale. The industrial drive for scale without limits – whether in terms of capital equipment, consumption, trade or corporate and political governance – is seen as an assault on the limits of nature. This is why all green movements, from market ecologists all the way to social ecologists, have been more or less comfortable with trends toward decentralization that have accompanied neoliberalism. It is also why they have, for the most part, embraced the ‘post-industrial’ thesis of the ‘information society’ as containing the technological potential to reduce the scale of economic activity and hence the ecological footprint of industry. In this sense, the alternative varieties of eco-localism of market ecology are not really as antagonistic to one another as they are often said to be. They are all representative of the ‘neither left, nor right, but green’ political orientation which has characterized ecological politics, but which also accommodates the acceptance of (local) capitalist markets as the necessary regulators of socio-economic activity.

The following critique of eco-localism and its conceptualization of a transition to a sustainable economy encompasses five dimensions: (a) the effectiveness of prices for transmitting ecologically sustainable decisions for place-based regulation; (b) the limits of technical and organizational change – apart from issues of distribution and social relations – as a solution to ecological problems; (c) the coordinative and ecological failures of bioregional and community-based economic alternatives; (d) the issue of whether all supra-local scales are ecologically perverse; and (e) the scale and role of democracy in any ecological transition that is socially just.

*(a) The magic of the market*

The use of market measures to address ecological problems constitutes a voluntary environmentalism. Market actors are free to respond to market incentives or ignore them and go on polluting and consuming, depending on profit conditions and income constraints. The market ecology strategies of eco-transition literally depend on the ‘magic of the market’. They are viable only insofar as prices are adequate to cover costs and thus able to valorize existing capitals or new ‘eco-capitals’ as part of market processes, and only insofar as income distribution is such as to allow consumers to adjust to more eco-friendly alternatives while still meeting their needs. Within these parameters of economic modelling, and with clearly defined private property rights and perfect information and foresight, the ecological behaviour of agents is supposed to change ‘at site’; that is, they will adjust ecological inputs and control outputs where production occurs, and where consumers purchase and consume. But *caveat emptor*: such a ‘place-based regulation’ of the environment without reference to external extra-local enforcement authorities might work if, and only if, all the enormously hypothetical assumptions behind it were to hold.

There is an obvious initial limit to even such an idealized ‘green capitalism’ as applied to eco-localism: each location is necessarily subordinate to the logic of capitalism as a whole, and can do nothing to alter the anti-ecological drive toward increased accumulation of value and money. Since the market alone is to regulate behaviour, this raises a host of problems.<sup>26</sup> Capitalists in a competitive marketplace will only accept such costs willingly to the extent that other localities are imposing similar market conditions. If they are not, market imperatives will compel capitalists to shed these costs, possibly through technological advance, possibly by lowering costs by shedding or bypassing ecological restraints, and possibly by free-riding on others’ ‘good’ ecological behaviour. With more liquid ownership structures (as with the kind of finance capital that has evolved under neoliberalism) capitalists are

less tied to 'place' and more likely to use regulatory arbitrage to avoid any imposed environmental cost. And in key sectors with the greatest impact on the environment, capitalists have an incentive to increase mobility to pursue surplus profits gained from natural resource rents. As long as there are countries or regions that are not subject to ecological taxes any eco-localist strategy will be continually undermined by the inter-local competitive pressures internal to capitalism, in the absence of extra-local enforcement capacities and controls over capital mobility. And to the extent that each jurisdiction does not have common information, understanding of future impacts, common enforcement mechanisms and a unique ecology, the possibilities for 'regulatory arbitrage' increase.

The environmental problems of 'common property resources' and 'externalities' raise an additional concern, given the collective aspect of the resource used and/or the environmental impact of production. Market ecology proposes to address these issues through constructing prices and markets to compel firms and consumers to adjust their behaviour. Yet the very collective dimension of these 'goods' makes it impossible for market agents to 'price in' all impacts and regulate usage exclusively at site. Similarly, since the future is always unknown, there is simply no way to account for inter-generational allocation of resource uses by market means alone (any imputed discount rates and time horizons to incorporate the future require non-market agents to make estimates). Without appropriate prices, there is no way for the market to equilibrate. As Martinez-Alier has put it: '[t]he market economy cannot provide a guide for a rational intertemporal allocation of scarce resources and of waste'.<sup>27</sup>

These are far more general limitations on market ecology, and particular eco-local possibilities, than is generally recognized. As Elmar Altvater has argued, the general conditions of capitalist production are not produced in a capitalist way: nature and public infrastructures especially are used by capitalists as if they are 'free' goods.<sup>28</sup> Even when attempts are made to price these 'commodities' this does not mean that the market can fulfill its allocative and preservative tasks; indeed since 'public goods' tend to be 'inadequately' provided by the market, state provision and/or regulation has proved inevitable. Indeed, all socio-ecological processes depend on conditions of production which are inherently produced outside markets. As market imperatives compel the continual accumulation of a greater mass of value (and a greater technical composition of capital), the ecological footprint of any local space of production will increase. Eco-localist place regulation via the adjustment of prices and incentives to account for ecological impacts can never com-

pensate for the structural dynamics internal to capitalist markets; nor can they encompass the unique characteristics of local ecologies.

*(b) The illusion of 'dematerialization'*

The limits of market prices often lead to equally misplaced eco-localist hopes in technique. Seldom has there been a more illusory social proposition than that of 'dematerialization' within a new 'weightless' information economy.<sup>29</sup> The 'information economy' requires its own massive infrastructure of cables, transmitters and so forth; energy usage continues to increase from the power needs of consumers and industry; the computer generates its own major recycling and emissions problems. This is a longer-term dynamic of capitalist economies. The long-run tendency of capitalism to reduce material throughputs per unit of commodity output is outstripped by the counterforce of the expansion in the overall circulation of commodities. Thus aggregate waste flows (even ignoring the quality and types of good being produced) continue to increase. Studies attempting to assess material throughputs in the current economy (or wider measures of the metabolic processes and ecological footprints of human activity) tend to show that considerable economic weight is still being gained.<sup>30</sup>

Further, whatever its level of eco-efficiency, the existing fixed capital stock creates significant barriers to any eco-rationalization of technique, even if market actions are embedded in supportive state policies. As James O'Connor has demonstrated, 'capitals will minimize waste, recycle by-products, use energy efficiently ... and so on, when it pays, otherwise not'.<sup>31</sup> The choice of technique that capitalists adopt, therefore, cannot be separated from the social and distributional conditions which determine the extraction of value from workers. Whether or not these are ecologically sound techniques is a subordinate question. Class relations figure more broadly than just in the labour process. To take the grossest example, the income structures of the 'North' allow a massive over-supply of eco-efficient housing for the wealthy, while the slums of the 'South' are built out of recycled materials. The 'market' is signalling two economically appropriate techniques, neither of which can be called ecologically or socially-just. Finally, massive fixed capital complexes, shaped by market choices, are major path-dependent obstacles to a switch in technologies: it is easier to develop fuel-efficient cars, so long as existing investments in urban sprawl help supply consumer demand, than to switch to public mass transit, which requires new tax revenue. A socially-just ecological modernization of local space would require not merely extra-market capacities, but in fact anti-market and extra-local political conditions.

*(c) The spatial division of labour*

The deepening of the spatial division of labour that attends the process of capital accumulation is a fundamental tendency of capitalism. This leads to a differentiation of socio-ecological spaces, with a tendency for differentiation to increase as the complexity of production systems, built environments, mass urbanization and the appropriation of nature all grow through time. This has been integral to the dynamics of neoliberalism as local spaces respond to the imperatives of value formation in the world market. There are two quite distinct problems for the localist project that emerge in relation to economic co-ordination. In the existing neoliberal context, the various forms of 'alternative economic spaces' – artisanal community sectors, LETS money systems, the social economy, popular planning boards, city corporations – have added significant dimensions to eco-localist practice, but they have remained quite marginal in terms of total activity and subordinate to the larger valorization processes of the 'formal economy' affecting the city as a whole.<sup>32</sup> These sectors, moreover, remain quite dependent, in both positive and negative ways, on wider urban planning measures, including coordination and support from governments at other scales (in Europe, for example, often including the EU institutions).

The political incoherence of the eco-localist project is compounded when the exchange and coordination relations among localizing communities is considered. Here the question of the scale of democracy internal to each socio-ecological community is largely avoided, although it is a more and more pressing issue now that there are some five hundred cities with populations of over one million. The division of labour, the production and exchange of use-values, the uses of the surplus and the planning of infrastructures are urgent questions within existing cities.<sup>33</sup>

The question of economic coordination is also compounded when different cities are considered, each having differentiated specializations and social and ecological capacities. Even if the idealism of the most utopian social ecology perspective – such as is entailed in imagining semi-autarchic cities – were to be granted, the coordination of exchanges, distribution and regulatory relations between such cities (via the market, or via planning?) would still require considerable attention and deliberation. Confronting the contradictions of economic coordination produced by capitalism within and between territorial scales, concentrated as they are at the level of local socio-ecologies, is fundamental to the success of any strategy against neoliberalism. Equally complex questions of democratic negotiation in transitional strategies must also be faced.

*(d) The lack of strategic vision*

Besides the above problems with the market-oriented privileging of the local in socio-ecological alternatives, there are also serious objections to the eco-localist vision for a less complex, less mediated, less inter-linked, de-scaled eco-community, as it is advanced by its neo-anarchist proponents. First of all, how the transition from actually existing capitalism to more or less self-reliant bio-regional communities is to be achieved is left quite unspecified. This is astonishing, given that it radically reverses a dominant tendency in capitalism and ignores the complexity of modern economies. There is a lack of a strategic vision of how the obstacles of capitalist and state power will be surmounted, and large numbers of questions of coordination, determination of output, means of governance – many of the basic issues that all social projects, in practice and theory, of market socialization and planning have confronted – are simply left unanswered. The eco-localist vision for shifting the structure of production and output, reducing work-hours, and suppressing material throughputs and emissions (which are more widely shared objectives) is mainly a set of preferences, unsupported by any case for its advocates' concentration on political organization at the local level.<sup>34</sup>

Second, it is evident that informational technologies have not led to a reduction in scale in major economic sectors. The scale of factories and the capitalization levels of firms have both increased. Only a minority have been able to opt out and work in smaller production units by choice, as opposed to being pressured to do so by the growth of informal and contingent work. Nor is it clear, moreover, that smaller units of production are by definition more ecologically responsible. Large production units come into being partly because market imperatives compel resource-saving on inputs, but larger firms also have greater capacity to take on leading-edge 'environmental technologies'. Smaller units of production may involve duplication of inputs, inadequate financial leverage to incorporate leading technologies, and even relatively greater use of energy resources. The matter of the scale of production cannot be assessed apart from some means also to assess the needs being met. Endorsing small scale in production as foundational principle, as eco-localists do in general, and social ecology proponents do in particular, is empty romanticism. In capitalism the scale of production is determined in the market and settled by the processes of valorization. But if social needs are to be assessed against the scale of production and ecological costs some democratic and coordinative planning capacities will be required, as prices alone will not incorporate all these relations.<sup>35</sup>

Finally, there is nothing inherent in the deepening of local level governance that would ensure that it did not produce considerable economic dam-

age. Even if it is granted that local participation in resource management in all forms is, indeed, a fundamental aspect of democratization, what the ecological consequences of this participation will be is a contingent question. Inter-local competition, between capitalist firms (even if they are internalizing all costs) or between bio-regional communities dependent on a degree of external exchange, can still induce ecological arbitrage as long as unsupervised markets exist. This is more likely to the extent that any local stewardship benefits can be offset by powerful local interests seeking personal or market advantages.

It is not at all clear how eco-localism – even in the most radical writings of social ecology, where private property rights are being socialized or limited – proposes to suppress powerful local interests. The mediation of these material political disputes, which are inescapable as long as class stratification and bureaucracy remain, cannot occur without encompassing democratic institutions and capacities for political mobilization.<sup>36</sup> These are some of the most important conceptual and political issues that have to be addressed in proposals for societal transformation, particularly in taking on the additional necessary burden of environmental justice, but they are met with major silences in the case made for an eco-localist project of ‘descaling’ socio-ecological life. The case for this too often dissolves into calls for ‘ethically superior’ individual consumption and production decisions, and alternative communal households – both of which can be endorsed, but they do not amount to a socio-ecological project of societal transformation.

*(e) Taking democracy seriously*

Eco-localist projects tend to treat the local as an authentic space of democracy, and other scales of democratic representation and struggle as mediated and false, because they impose external political-economic projects that violate local democracy and the appropriate scale of ecology. This conception involves a number of confusions, foremost among them thinking that the building of socio-ecological alternatives can be insulated from the non-local events and processes that constitute their context. Democratic processes and state institutions at other levels of governance raise central questions of power and distribution that cannot be ignored. The state, at whatever level of its apparatuses and functions, is the material institutionalization of power relations, and this includes struggles over resource extraction, usage and regulation, and distribution between places and persons. Local capitalist power relations are embedded in these wider relations and internalize these extra-local relations in the local power structures. There is, quite literally, no way to withdraw (even if it was judged desirable to do so) from these relations and

remain in a capitalist market economy. It is a false dilemma to counterpose a more active local democracy of citizens building an alternative ecology to decaying forms of representative democracy supporting unsustainable ecological policies and class relations. The challenge, and it has been at the heart of the crisis of liberal democracy and the impasse of socialist alternatives, is quite different: a transformation toward a different kind of state and democratic administration that allows the development of new political freedoms, capacities and socio-ecological alternatives within *central* forms of representative democracy, while fostering new institutional forms of direct democracy and differentiated socio-ecological processes in local places.

David Harvey has put the issue in a slightly different way: localism, he points out, often allows the command of particular places, but this does not mean having the capacity to control or command the processes of producing either space or nature.<sup>37</sup> The capitalist class can shift capital, play one locality off against another, or undermine local strategies by the exercise of political power at national or global scales of governance. Thus 'liberated' ecological and political spaces can only be defended to the extent that the scale and scope of capitalist market activities are reduced and the scale and scope of democracy is extended. Attempting to reduce the scale of production and ecological processes along community development and bioregional lines (apart from the scale of market exchanges), and to reduce the scale of democracy in support of mutualism (discounting systems of representation, delegation, participation, accountability at other scales of political life), as eco-localism suggests, is to completely misrepresent capitalist power structures and the necessary challenges of democratization.

#### A LOCAL ECO-SOCIALISM?

Local spaces always exist in a contradictory relationship with other spatial levels of capitalist development. This can be seen in Marx's theory of capital accumulation. The opening section of *Capital* captures the quandary: the commodity as a use-value is always particular, worked up from specific resources by the concrete labours of workers embedded in particular communities and their local social relations; but the commodity as an exchange-value is driven to transgress all spatial boundaries as particular labours and ecologies are transformed into the homogeneous space of value in general. 'The production of commodities and their circulation in its developed form, namely trade, form the historic presuppositions under which capital arises'.<sup>38</sup> The particular and the universal, the local and the global, urban nature and global biosphere, are not opposites, but different dimensions of the scalar matrix of the world market.

The dynamics of capital accumulation pose these abstract determinations in a more complex form. The accumulation of capital, as Marx observed, tends toward an intensification of the forces of production as the mass of fixed capital put in motion by any individual worker increases in its organic mass, technical complexity and value. The competitive imperatives that emerge from the constant revolution in the means of production also produce the tendency of concentration and centralization of the productive capacities and ownership patterns of capital. The deepening of the organizational complexity of capital has, paradoxically, a corresponding tendency of ‘statification’: the long-term reproduction of capital and labour becomes increasingly intricate, requiring progressively more government support in infrastructure, research and development, technical training, financing and regulatory intervention.

The accumulation of capital is, then, also an uneven process of localization (Marx’s ‘antagonism between the city and the country’). It is in this sense that David Harvey has insisted that the accumulation of capital is always a production of space as a built environment that is being continually accumulated, transformed and discarded: ‘it is through urbanization that the surpluses are mobilized, produced, absorbed, and appropriated and... it is through urban decay and social degradation that the surpluses are devalued and destroyed’.<sup>39</sup> As capitalism intensifies socio-economic activities at every scale – local, regional, national and global – so does it intensify, in the same process, the ecological-metabolic ones.

The unevenness of capitalist development concentrates productive capacities, populations and power in local urban spaces.<sup>40</sup> On the one hand, this devalues rural and regional social relations and spaces while valorizing urban centres linked to the circulation of capital in the world market; on the other hand, this increasingly transforms and makes dependent the metabolic relations of the ‘rural’ on the ecological relations and ‘urban nature’ of the city. This has always posed strategic dilemmas for the Left about how to ‘even out’ development, between centres and peripheries, urban and rural, and ‘society’ and ‘nature’ (though both are quite clearly ‘produced’ by both natural and socio-economic processes).

These features of capitalist development have led to distinct but related strategies constantly emerging within the socialist movement: proposals for decentralization to reduce the over-concentration of productive capacities, resources and power; and strategies of localism to build up organizational and political capacities and ‘liberated spaces’ and neighbourhoods within cities. These strategies have a long history, and have often been the defining element of various socialist tendencies, as in the cooperative movement, guild

socialism and municipal socialism. The Marxian tradition's focus on the Paris Commune, workers' councils and building 'red zones' in the struggle over state power has also advocated local bases of power and administration, as well as the reorganization of economic activity. No one has said it better than Henri Lefebvre: '[a] revolution that does not produce a new space has not realized its full potential; indeed it has failed in that has not changed life itself, but has merely changed ideological superstructures, institutions or political apparatuses'.<sup>41</sup>

Calls for rethinking the place of the local in socialist strategy have hardly let up, and several of the most important contributions in recent years – from participatory budgeting to theorizations of 'negotiated coordination'<sup>42</sup> – have made this a central feature. Socialists have generally favoured the decentralization of power to local and regional authorities on the basis of extending democracy, arguing that this, rather than a mere defence of the centralized state is the best response to neo-liberalism's ideological appeal. It is extended democratic forms rather than extended markets that should be the central regulators of socio-economic life and management of enterprises and institutions.<sup>43</sup> In contrast to most green thinking, however, the devolution of power has not been treated as being, by definition, more democratic and sustainable. National and international parliaments (leaving aside debates about their composition and mode of representation) have been seen as fundamental to securing the diversity of developmental paths and strategies, allowing for a more even distribution of resources, ensuring that basic rights and needs are met, blocking intolerable forms of inter-local competition, and encouraging 'decentralized cooperation'. This perspective shifts the strategic issue of socio-ecological priorities away from an *a priori* prioritization of the eco-local to the centrality of democratization itself. The point has been well-made by Raymond Williams, in rejecting both centralized command economies and the limitations of experiments in small-scale enterprises and communities:

...the problem of scale is more complex than the customary contrast of small and large.... [T]he socialist intervention will introduce the distinctive principle of maximum self-management, paired only with considerations of economic viability and reasonable equity between communities, and decisively breaking with the... dominant criterion of administrative convenience to the centralized state.... [A]ny foreseeable socialist society must have fully adequate general powers, and... at the same time such powers must depend on deeply organized and directly participating popular forces.<sup>44</sup>

The particularities of this formulation might be disputed, but the guiding idea of connecting scales of political struggle with democratization of the state is clear enough. Its presupposition would be an evolving system of ecologically responsible cooperative production. It is, indeed, possible to imagine political interventions in the local context that carve out a space for an eco-socialism. A first one might be to demand that fundamental ecological rights also meet basic needs in reconstructing built environments. Establishing rights to clean water and air, housing and public green space, basic energy supply and public transportation links directly to campaigns for 'lifeline supplies' of water, redistributive pricing mechanisms in energy consumption, and the decommodification of basic services,<sup>45</sup> and will begin to recast local ecological struggles in terms of needs and social provision.

A second political theme is that all ecological transformations are also struggles over environmental justice. Ecological impacts are never neutral with respect to class, gender and race, or in terms of the relations between regions and states. Campaigns for producer responsibility for emissions and waste, for instance, raise immediate questions about the implications for social class, for the impact on neighbourhoods and relations between states, and for the unequal exchanges involved in the international trade in waste.<sup>46</sup>

The complex interdependencies between these social and environmental issues are such that very diverse political interests and agendas would obviously be involved in the distributional, metabolic and technological changes that would be required to deal with them. Existing liberal democratic forms can be seen as painfully inadequate in this light, and it is no less clear that the development of new democratic capacities cannot be limited to the local level alone. Hence a third aspect of ecological campaigns is the need to explore popular planning mechanisms involving workers, ecologists and consumers, and the fundamental democratization of social relations and state institutions necessary for a transition to a system of ecologically responsible production and exchange.<sup>47</sup>

### LOCALISM, ECOLOGY AND THE LEFT

The drawing up of even a tentative eco-socialist agenda raises a central point of political contention between 'red' and 'green' politics over the scale of political action and the building of alternatives to neoliberalism. This is a division, of course, which also figures in the anti-globalization movement and its foremost symbol, the World Social Forum, where the fair of alternatives on offer blends together what is left programmatically un-reconciled.<sup>48</sup>

Historically, the territorial nation-state has been the central point of formation, legitimation, regulation and contestation of capitalist power relations.

It has also framed progressive politics. For distinct political reasons, social democratic and authoritarian communist movements focused on building productive capacities and redistributive social systems at the national scale via centralized bureaucratic capacities. During the postwar period, this fitted both with the strategies of metropolitan states bent on reconstructing national economies and the world trading system, after the turmoil of depression and war, and the strategies of liberated states embarking on new development paths after either decolonization struggles or revolution. Since the 1980s the internationalization of capital has intensified the global and local scales of accumulation as firms increase their asset base, scale of production and dependence on the world market. Nation-states, in turn, have re-ordered their administrative capacities to mediate global-local flows of capital, while giving up nationally-based development projects and redistribution policies. Neoliberalism has played no small part in reforging the matrix of governance: it has 'constitutionalized' a rules-based world market system and expanded the role of market imperatives in regulating local communities via competition over jobs and environmental standards.<sup>49</sup>

The strategic reaction to this unevenness in the scale of development by social democratic and trade-union forces has been twofold. For some, it has been imperative to re-establish 'territorial integrity' at the national scale via new frameworks of global governance over trade and capital flows and of corporate governance over firms. This, it is argued, would provide the institutional conditions at the international level for renewing traditional social democratic distributive bargains at the level of the nation state. This option has had little political traction, given the drastic shift of political forces it would require. For others, neoliberal globalization is now the terrain within which 'realistic' political options need to be formed. Their focus is on developing extra-market institutions to facilitate conditions for 'progressive competitiveness' at the scale of the firm and local community, particularly in the new 'knowledge economy'. Such a policy has been the project of 'third way' social democracy, as was noted in the introduction, and it has had considerable success in politically realigning its partisan adherents.

Green parties and many environmental NGOs have quite often been active allies in such social democratic rethinking, especially in those places in Europe and North America where these forces have significant electoral strength or mobilizational capacity. They see the knowledge economy as reshaping socio-ecological conditions – 'thinking smarter means thinking greener' – and they often share, as has been shown here, a faith in markets and technology. This political alliance has held less political attraction for social ecologists, whose project is one of territorial integrity connected to

bioregionalism and local democracy. Specific tactical alliances, however, have often been built over social democratic support for self-administration, co-operatives, pro-Kyoto measures for local energy alternatives, and alternative local markets, effectively absorbing many social ecologists and environmental NGOs into the reformist bloc. This alliance amounts to a 'third way from below', in which civil society forces reinforce the political realignment that social democratic leaders have carried out 'from above'. It needs stressing that this alliance has had a measure of electoral attraction and durability; however, it has not offered an alternate ecological or economic project to neoliberalism, and has been incorporated as a subordinate policy regime within it.<sup>50</sup> It is plausible to characterize the present neoliberal period as the hegemony of a 'blue-green-pink' historic bloc.

The construction of an eco-socialist alliance and project will have to be a quite different undertaking, for none of the above offers an alternative to neoliberalism. This cannot be conceived apart from the necessary wider processes of renewal of both the socialist and ecological projects. The basis for such an alliance needs to be developed at a number of levels. The first is a recognition that the many forms of eco-localism reproduce an 'ontological dualism' between nature and society which has pertinent political effects: the call for a reduction in our 'internal' social scale simultaneously entails a call for an expansion in the scale of an 'external' nature existing in some natural state apart from human societies. But humans live in society and in nature. Local environments cannot be understood without reference to the mediations of social labour, and the continual metabolism of nature that produces both nature and society.<sup>51</sup> Environments are always produced in a combination of natural and social transformations, and local socio-ecological processes are always implicated in wider socio-economic and natural processes. Theoretical and political priority can never simply reside in a particular pre-given geographic scale: theoretical and political priority must always be located and defined in terms of the socio-ecological processes which constitute scale.<sup>52</sup>

This can be put another way. The market imperative to intensify productive capacities to produce value, and to transform transportation and communication capacities for realizing new value-added, means that within capitalism local class struggles can never be conducted, or local ecologies formed, within permanent bordered territories.<sup>53</sup> The construction of political projects against neoliberalism, which is continually redrawing the borders of markets and governance in order to break out of local barriers to accumulation, needs to take this into account.

This poses the most immediate and daunting challenge for renewing eco-socialist alliances and political organization. Political organization is always, in an initial and practical sense, necessarily local. Branches, cells, political clubs, educational meetings, planning for demonstrations, alliance-building, leafletting, debating, all have to be based in – and build from – where we work and live. Class and ecological struggles against capitalism depend upon campaigns won in families, workplaces, neighbourhoods and communities, all of which are located within particular environments. Political organization and capacity are, in the first instance, about reproducing these struggles across time in particular places in face of capitalist forces that are unrelenting in their efforts to undermine, incorporate and isolate oppositional political alliances and to commodify any ecologies and resources withdrawn from the accumulation process.<sup>54</sup>

In making the case for socialist ‘parties of a different kind’, Hilary Wainwright gave this warning a decade ago: ‘[w]ithout a process of constantly envisaging and stretching towards such an alternative, there is a danger that the activities and organizations inspired by recent left movements *would* collapse back, if not into the traditional party system, then into becoming part of an under-resourced, over-exploited voluntary and marginal sector’.<sup>55</sup> It can be debated whether in fact this is what has already occurred, and whether the politics of eco-localism, and the brittleness of ‘red-green’ political alliances, have been especially representative of such a ‘collapse back’. But Wainwright’s point also contains a contemporary message. Global social justice movements and world social forums mean little if we cannot challenge local accumulation and sustain campaigns and control in our most immediate political spaces – and thereby ensure that everyday acts of resistance in daily life connect with one another through time, so that they can become the building blocks in the process of collectively helping to envisage and build an organizational alternative. This is most basic element of socialist and ecological renewal.

Political organization also makes more widely accessible – both in knowledge and active solidarity – the class struggles of one place with those of other places, thereby accomplishing in practice what conceptual abstraction allows in theory. But it does so in a structured way, so that political mobilization, reflection, debate and learning can move fluidly across scales. Political organization allows a depth to strategic thinking and action in a way that international justice fairs, although they can be remarkably open spaces for cross-sectoral dialogue, cannot. The internet can generate fantastical amounts of global e-mail information and outrage but this can rarely be backed up, however much it is used to project an organic spontaneity onto the multi-

tude, with social mobilization. A developing political capacity is necessary to translate local militancy into wider demands and socio-ecological programmes at other territorial scales of democracy and ecological sustainability. Politics then becomes transformative, dialectically moving between the scales of practical experience and the formation of a more encompassing social force. As Gramsci put it: '[o]ne may say that no real movement becomes aware of its global character all at once, but only gradually through experience'.<sup>56</sup> The eco-socialist political challenge is to connect particular local struggles, generalize them, and link them to a universal project of socio-ecological transformation, against the universalization of neoliberalism and capitalist markets as the regulators of nature and society.

The politics of eco-localism have been, in a sense, quite the opposite of the agenda just sketched here. Eco-localism projects the local as an ideal scale and conceives communitarian eco-utopias in a politics that is individualizing and particularizing. Under neoliberalism, eco-localism has evolved into a practical attempt to alter individual market behaviours, and to disconnect and internalize local ecologies and communities from wider struggles and political ambitions. But there is no reason to support, and every reason to oppose, any suggestion that the national and the global are on a scale that is any less human and practical than the local.<sup>57</sup> This is not to deny the importance of the local in anti-neoliberal politics; nor the importance of the question of appropriate scale for post-capitalist societies. It is to insist, however, that local socio-ecological struggles cannot be delinked from – and are indeed always potentially representative of – universal projects of transcending capitalism on a world scale. This is the meaning that Marx gave to the Paris Commune: at once a local embryonic society being born behind barricades and yet also 'emphatically international' in its ambitions and implications, so that this is what the Commune symbolized to the capitalist system:

...if united co-operative societies are to regulate national production upon a common plan, thus taking it under their own control, and putting an end to the constant anarchy and periodical convulsions, which are the fatality of capitalist production – what else, gentlemen, would it be but Communism, 'possible' Communism?<sup>58</sup>

Or, one could add, in this context, 'possible' eco-localism?

## NOTES

- 1 This is from the document 'What, Why and Where' posted on the World Bank's resource site for decentralization and subnational regional economics, accessible at <http://www.worldbank.org>.
- 2 Richard Florida, *The Rise of the Creative Class*, New York: Basic Books, 2002, pp. 285-6.
- 3 John Cavanagh et al., *Alternatives to Economic Globalization*, San Francisco: Berrett-Koehler, 2002, p. 109. See also: Walden Bello, *Deglobalization: Ideas for a New World Economy*, London: Zed, 2002; Martin Khor, *Rethinking Globalization: Critical Issues and Policy Choices*, London: Zed, 2001.
- 4 Robin Hahnel, *Economic Justice and Democracy: From Competition to Cooperation*, New York: Routledge, 2005, p. 341.
- 5 Mike Davis, *Planet of Slums*, London: Verso, 2006, pp. 201-2.
- 6 This is not to say that local ecologies are not posited as linked to the biosphere or 'gaia', the terms introduced respectively by *Scientific American* and James Lovelock in the 1970s, but that the scale of political action, and in particular the construction of economic solutions, tends to be resolutely local. See, for example, on this political duality: Wolfgang Sachs, *Planet Dialectics: Explorations in Environment and Development*, London: Zed, 1999, pp. 105-7, 197-212.
- 7 Green Party USA, *Ten Key Values*, at <http://www.greenpartyus.org/tenkey.html>.
- 8 Michael Woodin and Caroline Lucas, *Green Alternatives to Globalisation: A Manifesto*, London: Pluto, 2004, p. 70.
- 9 UN-Habitat, *State of the World's Cities, 2006-07*, at <http://www.unhabitat.org>.
- 10 Rachel Carson, *Silent Spring*, Boston: Houghton-Mifflin, 1962; Garrett Harden, 'The Tragedy of the Commons', *Science*, 162, 1968; D. Meadows et al., *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, Boston: Universe Books, 1972; The Ecologist, 'A Blueprint for Survival', *The Ecologist*, 2(1), 1972.
- 11 E.F. Schumacher, *Small is Beautiful: Economics as if People Mattered*, London: Abacus, 1973, p. 49. For a continuance of Schumacher's themes see: Paul Ekins, ed., *The Living Economy*, London: Routledge, 1986.
- 12 These themes were developed across a range of important books, but see their original source: Barry Commoner, *The Closing Circle*, New York: Knopf, 1971; Herman Daly, ed., *Toward a Steady-State Economy*, San Francisco: W.H. Freeman, 1973.
- 13 World Commission on Environment and Development, *Our Common Future*, Oxford: Oxford University Press, 1987, pp. 43, 249. This was followed by the Rio Earth Summit and its *Agenda 21*, New York: United Nations, 1992, and a host of international agency sustainability initiatives, each giving more emphasis to the local and market ecology. See: Peter Brand and Michael Thomas, *Urban Environmentalism*, London: Routledge, 2005, chapter 2.
- 14 See the essay by Achim Brunnengräber in this volume.
- 15 I once had a well-known neoclassical economics professor explain to me, when reviewing the debate that waged into the 1980s on growth models and *The*

- Limits to Growth*, that prices were such efficient regulatory mechanisms that natural limits of any kind were an impossibility with capitalist growth, as the right price would simply induce entrepreneurs to supply resources from surrounding planets in the solar system. Such parables, of course, continue.
- 16 David Pearce et al., *Blueprint for a Green Economy*, London: Earthscan, 1989, pp. 21, 155.
  - 17 David Korten, 'The Mythic Victory of Market Capitalism', in Jerry Mander and Edward Goldsmith, eds., *The Case Against the Global Economy*, San Francisco: Sierra Club Books, p. 187.
  - 18 Paul Hawken, *The Ecology of Commerce*, New York: Harper, 1993; Jonathan Porritt, *Capitalism as if the World Matters*, London: Earthscan, 2005.
  - 19 Joseph Huber, 'Towards Industrial Ecology: Sustainable Development as a Concept of Ecological Modernization', *Journal of Environment Policy and Planning*, 2(4), 2000; Wolfgang Sachs et al., *Greening the North: A Post-Industrial Blueprint for Ecology and Equity*, London: Zed, 1998.
  - 20 The urban planning literature on sustainable cities is filled with such schemes, most for the good, if limited in their social horizons. See: Nicholas Low et al., *The Green City*, London: Routledge, 2005; Mark Roseland, ed., *Eco-City Dimensions*, Gabriola: New Society, 1997.
  - 21 Lester Brown, *Plan B 2.0*, New York: Norton, 2006, pp. 227, 247.
  - 22 Murray Bookchin, *Post-Scarcity Anarchism*, Montreal: Black Rose Books, 1971, p. 80.
  - 23 Colin Hines, *Localization: A Global Manifesto*, London: Earthscan, 2000.
  - 24 Fred Curtis, 'Eco-localism and Sustainability', *Ecological Economics*, 46(1), 2003; Woodin and Lucas, *Green Alternatives to Globalization*.
  - 25 The writings of Rudolph Bahro are paradigmatic here, but the anti-industrialism thesis is also more general. See: *From Red to Green*, London: Blackwell, 1986; Andrew Dobson, *Green Political Thought*, London: Routledge, 1995, chapter 3.
  - 26 See John Bellamy Foster, *Ecology Against Capitalism*, New York: Monthly Review Press, 2002, chapters 1-3; Hahnel, *Economic Justice*, pp. 67-71. These critiques could be extended to the self-help and informal economy entrepreneurialism that has been part of the project of sustainable development, which also suffers from the problem of market competition generating over-exploitation.
  - 27 Juan Martinez-Alier, 'Ecological Economics and Ecosocialism', in Martin O'Connor, ed., *Is Capitalism Sustainable?*, New York: Guilford, 1994, p. 26.
  - 28 Elmar Altvater, *The Future of the Market*, London: Verso, 1993, pp. 219-22.
  - 29 See Ursula Huws, 'Material World: The Myth of the Weightless Economy', in *Socialist Register 1999*.
  - 30 See: Martinez-Alier in this volume; R. York and E. Rosa, 'Key Challenges to Ecological Modernization Theory', *Organization and Environment*, 16(3), 2003; World Resources Institute, *The Weight of Nations: Material Outflows from Industrial Economies*, Washington: WRI, 2000.
  - 31 James O'Connor, *Natural Causes: Essays in Ecological Marxism*, New York: Guilford, 1998, p. 204.
  - 32 Michael Pacione, *Urban Geography*, New York: Routledge, 2005, chapter 16; Andrew Leyshorn, Roger Lee and Colin Williams, eds., *Alternative Economic*

- Spaces*, London: Sage, 2003. The prolific writings of Jamie Gough have been the most inventive and sober on these issues. For example: 'Changing Scale as Changing Class Relations: Variety and Contradiction in the Politics of Scale', *Political Geography*, 23(2), 2004.
- 33 For some of these conceptual debates see: John Friedmann, *Planning in the Public Domain*, Princeton: Princeton University Press, 1987, chapters 9-10; David Schweickart, *Against Capitalism*, Boulder: Westview, 1996, pp. 286-7.
  - 34 Hahnel, *Economic Justice*, p. 182.
  - 35 Joseph Berliner, *The Economics of the Good Society*, Oxford: Blackwell, 1999, pp. 228-9; Joel Kovel, *The Enemy of Nature*, London: Zed, 2002, pp. 166-75.
  - 36 Laurie Adkin, 'Democracy, Ecology, Political Economy', in Fred Gale and Michael M'Gonigle, eds., *Nature, Production, Power: Towards an Ecological Political Economy*, Cheltenham: Edward Elgar, 2000; Josée Johnston et al., eds. *Nature's Revenge*, Peterborough: Broadview, 2006.
  - 37 David Harvey, *Justice, Nature and the Geography of Difference*, Oxford: Blackwell, 1996, pp. 320-4.
  - 38 Karl Marx, *Capital*, Volume 1, London: Penguin, 1976, p. 247.
  - 39 David Harvey, *The Urban Experience*, Baltimore: John Hopkins University Press, 1989, p. 54.
  - 40 Neil Smith, *Uneven Development: Nature, Capital and the Production of Space*, Oxford: Blackwell, 1990, pp. 136-9.
  - 41 Henri Lefebvre, *The Production of Space*, Oxford: Blackwell, 1991, p. 54.
  - 42 Pat Devine, *Democracy and Economic Planning*, Boulder: Westview, 1988, chapter 9.
  - 43 Ralph Miliband, *Socialism for a Sceptical Age*, London: Verso, 1994, p. 80.
  - 44 Raymond Williams, *Resources of Hope*, London: Verso, 1989, pp. 273-5.
  - 45 These themes are explored by Patrick Bond in his *Unsustainable South Africa*, London: Merlin Press, 2002.
  - 46 The distributional relations of ecology are developed in Enrique Leff, *Green Production*, New York: Guilford, 1995, and Andre Gorz, *Ecology as Politics*, Montreal: Black Rose, 1980.
  - 47 O'Connor, *Natural Causes*, chapter 15; and Michael Jacobs, *The Green Economy*, London: Pluto, 1991.
  - 48 For accessible canvases of opinion see: William Fisher and Thomas Ponniah, eds., *Another World is Possible: Popular Alternatives to Globalization at the World Social Forum*, London: Zed, 2003; Jose Correa Leite, *The World Social Forum: Strategies of Resistance*, Chicago: Haymarket, 2005.
  - 49 Neil Brenner, *New State Spaces*, Oxford: Oxford University Press, 2004; Andrew Herod and Melissa Wright, eds., *Geographies of Power*, Oxford: Blackwell, 2002.
  - 50 Gerassimos Moshonas, *In the Name of Social Democracy*, London: Verso, 2002; Greg Albo, 'Contesting the "New Capitalism"' in D. Coates, ed., *Varieties of Capitalism, Varieties of Approaches*, London: Palgrave, 2005; Ash Amin, 'Local Community on Trial', *Economy and Society*, 34(4), 2005.
  - 51 Paul Burkett, *Marx's Nature*, New York: St. Martin's Press, 1999; Roger Keil, 'Urban Political Ecology', *Urban Geography*, 24(8), 2003; Noel Castree, 'Commodifying What Nature?', *Progress in Human Geography*, 27(3), 2003;

- Maria Kaika, *City of Flows: Modernity, Nature and the City*, London: Routledge, 2005.
- 52 Erik Swyngedouw and Nikolas Heynen, 'Urban Political Ecology, Justice and the Politics of Scale', *Antipode*, 35(5), 2003, p. 912; Nik Heynen, Maria Kaika and Erik Swyngedouw, eds., *In the Nature of Cities*, London: Routledge, 2006.
- 53 David Harvey refers to this as the 'non-neutrality of spatial organization in the dynamics of class struggle'. See: *Spaces of Capital*, New York: Routledge, 2001, p. 381.
- 54 This includes the active role of the state in 'political disorganization' of workers to reproduce the 'isolation effect' of the relations of production, as discussed by Nicos Poulantzas, and it also includes 'accumulation by dispossession' as discussed by David Harvey. See respectively: *Political Power and Social Classes*, London: Verso, 1973, p. 287; *The New Imperialism*, Oxford: Oxford University Press, 2003.
- 55 Hilary Wainwright, *Arguments for a New Left*, Oxford: Blackwell, 1994, p. 264.
- 56 Antonio Gramsci, *Selections from the Prison Notebooks*, New York: International Publishers, 1971, p. 158.
- 57 The foremost advocate of this position is the American bioregionalist Kirkpatrick Sale, *Human Scale*, New York: Coward, McCann & Geoghegan, 1980.
- 58 Karl Marx, *The Civil War in France*, Moscow: Progress Publishers, 1972, pp. 61, 58.