

## Chapter 1

# Reflections on Materialities

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### **Towards Active Urban Materialities**

In the original *Companion to the City* there was a section of writings on city economies. In this new *Companion* some of those discussions are found here in Part I on materialities, and to some extent Part II on mobilities. That is not to say that considerations of economic activity in the city are any less central than they have always been but it is to say that ways of conceiving of economic activity and its relationships have shifted in interesting ways that open up new vistas in thinking about what cities are and how they fit into broader economic processes across the globe. One of the areas of discussion that have expanded over the last ten years since the first *Companion* is to do with ideas of materials and materiality. This in itself is not new. Marxist inspired analyses of the economy and what David Harvey called the urban process in capitalism have been established for 40 years or more.

Historical materialism is one guiding framework that has informed the dominant strand of urban analysis of long-term trends as well as the particularities of city life in capitalism. Those insights were there when Marx was writing and can be seen in his collaborator Friedrich Engels's analysis of capitalist urbanization in Manchester and London in the mid-nineteenth century. In *The Condition of the Working Class in England in 1844* (sections of which are edited in the sister volume to this *Companion* – *The Blackwell City Reader* 2nd edn) Engels identified material qualities of the city that are now the focus of sustained analysis (although in slightly different ways). Engels went into close details of the material life of factory workers in east Manchester – the poor quality of their dwellings, their clothes, their employer-provided foodstuffs adulterated with non-food materials. Engels is also informed by Marx's arguments about how materials, commodities, are imbued with the wider

social relations of their production and the class exploitation and profit extraction from these materials. Objects as commodities are congealed forms of labor and that labor expresses the social relations of its organization and exploitation – literally materialized in the woven cotton produced in the factory but also evident in debased commodities, in the bulked-out food and the thinness of partition walls in the terraced housing in which the workers had to live. Materiality has been discussed in a number of ways that we consider in this section.

Another feature of Engels's observations that has contemporary resonance is his attention to the body. He describes in unrelenting detail the mutations to bodies that result from poor health, poor nutrition, and sub-standard accommodation. He catalogues the diseases that afflict the bodies he sees in the streets because of their miserable living conditions. And, rather more directly in terms of the processes of production that Marx was so concerned with, Engels shows how he is able to read from the distortions of body shape and limb development the particular interminably repeated task in the factory production process that the body was involved in. Objects, machines, and bodies are brought into a destructively intimate relationship.

The detailed divisions of labor that were found in the factory system describe a narrow, instrumental, tight relationship between objects and bodies. Contemporary understandings of materiality have loosened and expanded the idea of material human relationships. This suggests how objects can assemble human relationships in ways that are not just embedded and implicit (or mystified as Marx suggested) but more active and evident. There is a good deal of vitalist pragmatics here in thinking about objects acting back on humans and in suggesting a flatter relationship of significance between humans, objects, and other non-human actors. In fact much of actor–network theory or relational analysis sees objects not as solid lumpen things off which human activity can be understood but as processes themselves and co-constitutive of human/object/non-human actor relations (Latour 2005). In *Paris: Invisible City* (2006: 63, 64) Latour and Hermant see objects as keeping

life in the big city together: objects despised under the label “urban setting,” yet whose exquisite urbanity holds the key to our life in common ... each of these humble objects from public toilet to rubbish bin, tree protector to street name, phone booth to illuminated signpost, has a certain idea of the Parisians to whom, through colour or form, habit or force, it brings a particular order, a distinct attribution, an authorization or prohibition, a promise or permission.

Here we have almost a sense of objects as alive and breathing in the city streets.

Chapter 6 by Matthew Gandy and Chapter 7 by Harvey Molotch capture the big stuff and small stuff of the material environment of cities. Gandy's research has been concerned with the materiality of the city and the way that big stuff such as urban infrastructure embeds social relations in its production and in its ongoingness, as it continues to assemble human and object relations in different ways. Gandy suggests how, far from being inert, urban infrastructures, in common with understandings of any landscape, bring into play complex layerings that involve experiences of space, different aesthetic sensibilities, memory, and indeed discourses and ideologies that connect powerfully to understandings of the public realm.



**Figure 1.1** Sydney bridges. Photo S. Watson.

Harvey Molotch's chapter deploys similar assumptions to show how humans and materials co-produce in urban environments. They range from body and object relations such as subway turnstiles and public toilets through to the co-production of city neighborhoods, such as SoHo in Manhattan, where the occupation of former industrial lofts – large uncluttered spaces – facilitated an artistic practice involving large canvasses and art objects. These objects produced an art market in which the value of the objects raised the real estate value of the neighborhood which resulted in the displacement of the artists and the gentrification of the neighborhood (a process that Sharon Zukin noted in *Loft Living*, and which she discusses here in Chapter 49 on the retail landscape of lower Manhattan). Jane M. Jacobs and Stephen Cairns, in Chapter 8, illustrate how buildings as assemblages are held together in a continual process of building. Developing the approach from Science and Technology Studies (STS) they look at the socio-technical-material interrelations that continuously build the high rise. In the case of the Singapore residential high-rise buildings they study how this holding together involves a continuous process of maintenance and repair with inventories, purchase orders, observations, surveillance technologies – in combination with other actants such as wind, water, mould – that are working on the building in other ways.

The city can be seen as the site or arena where the continuities and co-effects of the social, the technical, and the material on each other and as an ongoing infrastructural ecology can be seen to greatest effect. This blending of the influence of

actor–network theory and STS along with a revised view of the acting powers of the material raises issues of transhumanism, cyborg life, and a more distributed view of agency (between human, non-human, and technological actants). There is also the idea of performative enactments and events rather than linear causal change in terms of understanding urban processes (Amin and Thrift 2002; Latour 2005; Farias and Bender 2009). This view of urban life (in its broadest sense) powerfully and very usefully repositions the idea of the city as a supremely and exclusively human environment and achievement. At the same time it flattens the view of intentionality and rationality and power to such a degree that critical human political dilemmas and directions can be left hanging somewhat.

### **Neoliberalism, the Market, and the City**

The focus on materiality is not just about the relationship between materials and humans but also between materials and the seemingly more dematerialized elements of the global economy. The links here were shown by a landmark study of Chicago by urban historian William Cronon (*Nature's Metropolis* (1991) – abstracted in the *Blackwell City Reader*). In fascinating detail Cronon shows how changing transport technology (boats to trains) meant that the volume of grain to be traded at the Chicago market, coupled with another technical innovation (the grain elevator), resulted in general grading of the quality of wheat the consistency of which had to be guaranteed by the newly formed Chicago Board of Trade. With these guarantees, paper contracts for quantities of different grades of wheat could be traded and, with the invention of the telegraph, this trading expanded across the US and increasingly across the globe. Furthermore paper contracts could be issued for quantities of grain “to arrive” at a certain date in the future. This gave traders opportunity to speculate on the future trajectory of grain prices. If they thought the price of grain would rise between their purchase of the paper contract and its completion they could sell the contract on later and make a profit simply on the movement of prices. Thus, the physicality of the commodity itself (in this case grain) combined with technical developments over its handling, movement, and categorization, along with technical developments in communications and institutional arrangements that supported a market for exchange over future states of the physical world (giving the price of grain in the future), created a futures market. The materiality of this process was intimately related to the more abstract and speculative trades that occurred in markets far away from the grain silos, the physical environment, and objects in which the grain was processed. But those abstract trades required physical infrastructure of communications, offices, and networks of human contacts for the market to operate. The expansion of this “market” also acted back on the urban fabric of Chicago, both in the immediate environment of the market and also in terms of Chicago’s rising position in a developing urban hierarchy across the US.

The growth of markets and ever more remote and complex forms of abstraction over the trading of commodities has been one long-term trend in capitalist urbanization. The symbolic aspects of market abstraction have also become more powerful over time such that claims over market mechanisms have become hegemonic in all areas of life. The idea is that the pure competitive market model should be the preferred mechanism for the delivery not only of consumer products but also of

public services through to large-scale urban infrastructures (from shopping malls to mass transit systems). This is a privileging of a certain idea of the market that has come to be known as neoliberalism (see Harvey 2005). It advocates unfettered market processes and a reduced role for governments. The underlying political message relies on the idea that markets are better at picking up on what Hayek (2007) called people's tacit knowledge, their wants and needs, than states are able to understand and plan for. The sustained critiques of neoliberalism have targeted its naivety about pure market processes that are in fact supported by governments and other institutional frameworks, in all kinds of ways. Also discussed is the overly extended idea of consumer sovereignty which is highly individualistic and ignores social needs and wider moral questions (Leitner *et al.* 2007).

Neoliberalism has impacted on cities and cities play a role in wider processes of neoliberal capitalism in a number of ways. The kind of speculative trading that Cronon showed in incipient form in the growing city of Chicago two centuries ago has expanded greatly since. This investment and speculative activity has grown as a proportion of all economic activity – the process of financialization. Financialization has grown disproportionately in certain cities that have command and control functions in the global economy. These global cities (traditionally London, New York, and Tokyo but now increasingly involving Shanghai, Mumbai, and others) are particular manifestations of neoliberal capitalism. They carry the institutional and sociological evidence of financialization – investment houses of the major banks and the producer services that support them (such as accountancy and legal services) and the highly paid professional workforces they employ. The economy of global cities themselves is increasingly bifurcated between highly paid professionals in the financial services sector and the poorly paid (often immigrant) labor forces that service the domestic, childcare, and consumption demand of the professional population: the two sides of the global city (as Saskia Sassen's research has established and as she argues in Chapter 18).

The continuities and discontinuities of global capitalism and global cities are also discussed in a comparison of London and New York in Chapter 4 by Susan Fainstein, Ian Gordon, and Michael Harloe. They trace the ups and downs of the global economy, the key roles played by these two finance capitals, and the economic outcomes for these two cities over the last 40 years. Economic bust and boom (and bust again) has accompanied a growing similarity between New York and London in terms of ever higher levels of social inequality and the clear emergence of a dual labor market, with high-earning private sector professionals at one end and an uneducated, low-paid class of workers servicing the demands of the professional class. These inequalities are likely to be even more marked as New York and London resume (banking) business as usual after the 2008 crash. However Fainstein, Gordon, and Harloe raise questions about the future limits to growth of the financial and producer services sectors as well as the continued dispersal (and regionalization) of activity away from the urban cores (regional urbanization is analyzed by Short in Chapter 3 and Soja in Chapter 59).

Aside from the particular effects on a few global cities, the effects of neoliberal economics on other layers of the urban hierarchy have been profound. First there are the distinctions between cities of the global north and south as the indebtedness of many countries of the global south and the neoliberal restructuring programs

they have been forced to adopt by the International Monetary Fund and World Bank to meet debt requirements (under the so called Washington Consensus) provide the context for increasingly uneven development and social inequalities.

Within cities of the global north and south there has been an increased marketization of their economies and politics. One such has been a shift of city governments from a primary focus on social redistribution and collective consumption toward business growth models and providing favorable financial environments for private capital investment – what David Harvey noted some time ago as a shift from urban managerialism to entrepreneurialism (Harvey 1989). This has extended into incentives to private companies to invest in elements of the public realm (such as the public–private partnerships between central or local government and private firms to fund infrastructure projects, for example, the expansion and renovation to the London Underground system). This is a form of privatization which has been more widely discussed in the urban context in terms of the privatization of public space (Sorkin 1992; Mitchell 2003; and see Chapter 40 by Lily Kong and Chapter 41 by Setha Low). The construction of shopping malls with private security forces has meant the replacement of the more open and unpredictable space of the street. In a growing number of cities urban redevelopment schemes for shopping and leisure space have meant that new streets have been built but these are owned by private developers rather than the municipal government: wholly privatized urban fabrics.

The influence of the market has been extended by these privatization processes but it has also impacted on public spending and public services through the adoption of market mechanisms in these spheres, in the form of quasi markets in health and environmental and social services. There have been moves away from municipal governments being direct providers of services towards a purchaser (the municipality) and provider (a range of public, private, and voluntary sector agency) competing for contracts to provide the service in a more post-Fordist regime of welfare. This has impacted on city services (such as meals services to the elderly, garbage collection, and utilities being provided by contractees whose primary motive is profit driven). These principles have even extended into the welfare sphere, for example, with the spread of workfare schemes. These are symptomatic of a governance regime in which market imperatives and market “disciplines” are pre-eminent in all areas of life. In Chapter 2, Nik Theodore, Jamie Peck, and Neil Brenner identify and analyze all these trends and their impacts on cities but also argue that there is a form of neoliberal urbanization itself in which cities, their land ownership patterns, built form, labor markets, and service provision often form the testing ground for neoliberal experiments in all these spheres. They also encapsulate many of the divisions and social inequalities that result from unregulated markets.

Some of the divisions that come with the rise and decline of markets are captured in the chapters by Xiaoming (Chapter 12), Forrest (Chapter 13), and Shah (Chapter 5). Wang Xiaoming analyzes the emergence of a real-estate market in Chinese cities, one effect of which has been the loss of public space (albeit spaces that were also controlled politically). Xiaoming traces the commodification of the city, through the development of the real-estate market, the growth of the amount of space for car use, and the negative impacts of car pollution on meeting-places in the city that had existed previously, through to the growing separation and specialization of land use via property submarkets and the growing dominance of residential space. He also

indicates the wider symbolic aspects of this process as the city itself becomes the subject of imaginering as billboards sprout up across the city selling images of the “ideal” house and the wider lifestyle and wider urban environment.

Ray Forrest’s chapter provides some of the context and detail of the effects of the change from state to market in housing in Shanghai. He looks at inter-generational relationships and family strategies in coping with the changing incentives that come with the emergence of a market for housing. Forrest’s chapter captures how global processes and economic change impact on family relations but also how family strategies can provide a coping strategy in an uncertain world. The effects of changes in the global economy and how they are registered on a city’s geography and the everyday lives of its residents are captured in Amrita Shah’s chapter on Ahmedabad in India. The decline of the cotton industry and the rise of the finance and service sector are accompanied by the effects on the built form and social geography in terms of de-industrialization and gentrification but also witnessed in the interweaving of myths and money in the cultural politics of the city.

Growing social divisions, neoliberal capitalism and urban landscapes come together in a particular way for Stephen Graham in his analysis of what he calls military urbanism. Graham’s Chapter 11 suggests how control and surveillance technologies used in military combat can be used in cities to regulate populations, often within a discourse of the politics of security. Markets for military equipment meet forms of urban governance. He draws on the work of Giorgio Agamben (2005) and the states of exception where normal legalities do not hold as a testing ground for types of control and intervention. This results in the city being more and more like a military camp in terms of its direction of populations and treatment of social conflicts. On the other hand, Graham notes how urban infrastructures themselves are increasingly the target of military offensives in war in strategies of demodernization through the destruction of infrastructure and the creation of public health crises.

## Urban Materialities of Nature

All the themes of materiality, neoliberalism, and globalization are brought together over concerns about nature and the environment, especially the issue of global warming. As Maria Kaika and Erik Swyngedouw usefully point out (Chapter 9), discussions of nature and the future of the environment have grown rapidly in the ten years since the publication of the first *Companion to the City* where their chapter was the only one to deal explicitly with environment/nature, a topic that is now widely distributed in several chapters across the *New Companion*. For many researchers, especially those coming from a neo-Marxist perspective, it is the logic of the working of capitalism itself that is inevitably leading to environmental catastrophe. The focus here is on the materiality of capitalist economic processes that seek to exploit raw materials for profit, aside from their wider environmental implications and connections. The exploitation of raw materials to produce products for consumption, and the growth of materialist culture across the world, mean that what Marx called “accumulation for accumulation’s sake” (Marx 1967), without regard for the wider environment, continues apace. And that wider environment is social as well as physical. As we have seen, in his critique of the commodity form

in the first chapter of *Capital*, Marx argued how the price of a commodity in market exchange hid all the social relations of the nature of its production: the congealed labor in the commodity was hidden and mystified. Those social relations, for Marx, were dominated by the exploitation of workers by capitalists and the confining of profit to the capitalist class. This results in many of the gross social inequalities that are evident in the divisions between the rich global north and the impoverished global south and also in increasing divisions within nations north and south as the competitive market model in neoliberal capitalism has been given full rein. From this perspective nature is transformed into the second nature of commodities in ways that are physically and socially unstable. Cities are not distinct or separate from nature, or somehow unnatural (Harvey 1993; Heynan *et al.* 2006). They represent processes of human transformation of the material environment, in the same way that rural agriculture and other, what might be seen as more natural, environments are transformed by human activity, including the demands of cities and their emissions. Preventing both environmental and social catastrophe requires a change of economic system to produce a more egalitarian outcome. As Kaika and Swynge-douw argue in their chapter, this is a call for “the egalitarian and democratic production of socio-ecological commons.” They suggest it is thus a supreme irony that the market model itself is being promoted as the solution to the environmental crisis, through mechanisms such as carbon trading and the “polluter pays” principle. They suggest further, quoting Alain Badiou (2008), that ecology is the new opium of the masses, a way for governments and transnational corporations to impose various constraints and conformities on populations that preserve vested interests rather than change them.

There is another set of views that are technically led and accept the market model but suggest that the nature of the challenge will necessitate radical changes in industrial production, consumer lifestyles, and governance. Peter Droege’s chapter reflects this approach. In Chapter 10 he argues that ending fossil fuel energy production, reversing deforestation, and significantly cutting material consumption in wealthier societies are necessary to ameliorate global warming. Droege emphasizes the implications for cities in this approach but also looks towards the possibilities of urban and regional solutions to energy production. These, he suggests, should be coupled with city-based initiatives that are within the remit of many types of municipal governments across the globe. They include initiatives on infrastructure standards to provide green infrastructure, urban land for food production and energy-autonomous buildings, repurchasing of municipal energy companies, and support to renewable energy projects through issuing bonds. Droege looks at a wide spectrum of energy saving including the operational use of energy and transport regimes but also consumable energy (energy requirements embedded in foodstuffs due to the energy used in their production).

Whether addressing global warming requires ultimately a replacement of the capitalist economy, or a series of sweeping measures within it, advocates of both approaches might agree that cities have a crucial role as the material assemblages of the transformative potential for the environment. Now that we have reached the point in human history where, for the first time, over 50 percent of the global population live in urban areas, the environmental future of the planet is increasingly an urban one. Cities are the concentrations of energy consumption and pollution. As



**Figure 1.2** Rubbish trucks, Beijing. Photo S. Watson.

John Short amply illustrates in Chapter 3, the megalopolises of the US are the core regions of environmental impacts in the early twenty-first century. The megalopolis he discusses stretches over 52,000 square miles and encompasses the metropolitan regions of Boston, New York, Philadelphia, and Washington-Baltimore. It has a population of over 50 million but sprawled over a vast area and involving high energy use (in a nation that takes 25 percent of the world's energy). Nevertheless, as an alternative to this urban sprawl, higher density cities are increasingly being seen as the solution, rather than the main cause, of global warming. High-density, more compact settlements are seen as more energy efficient than the car-based, low-density, energy-sapping suburbs. A range of green technical innovations is more possible in urban environments, as Peter Droege's chapter demonstrates. Against the population control via ecological crisis arguments, one might raise the possibility that attention to energy audits and carbon footprints starts to open up new avenues of possible democratic accountability that are based on long-term goals. Energy audits reveal the inequalities that exist between cities and nations of the global north and south but also provide lessons for more sustainable cities in the future. The squatter settlements and slums that represent the greatest growth in urban built form into the future are indictments of the economic system but in their use of recycled materials and flexible form provide lessons for low-energy use in properly funded urban areas also.

## Rethinking Urban Economies?

The possible reorientation of thinking that comes with the demands of sustainability might reflect how urban economies are conceived more widely. The classic model was to consider urban economies in terms of the dominant economic paradigm of neo-classical economics. The size and constitution of different cities came about as a result of the forces of agglomeration economies. The clustering of industrial production reduced supply costs, permitted specialized labor markets, and maximized potential markets. The externalities of increasing transport costs and pollution, growing labor market inflexibilities, and congestion brought diseconomies of scale that limited the size and distribution of cities. Within the city itself, land use was sorted according to the classical Bid Rent Model (see Alonso 1964) in which the ability and need to buy central city land varied between commercial, industrial, and residential users and so the price mechanisms sorted land use into different concentric zones.

The emergence of Marxist urban studies in the early 1970s onwards challenged all the assumptions of the neo-classical model. The aspects of agglomeration and labor market flexibility were interpreted as forms of accumulation of capital and exploitation of labor for which, from the Industrial Revolution onwards, cities were the centers of activity. The consequences of this we have already discussed in terms of human poverty, with Engels's observation of Manchester in the mid-nineteenth century. These conditions are reproduced across the world in cities of the south and the cities of the north that are seen as declining. This uneven development is a core element in the boom and bust nature of capitalist economic trends. Thus in cities of the north there are the global cities, with a section of the economy and urban space in forms of hyper accumulation (the financial centers such as the City of London) whereas the rest of the city around them and the rest of the national economy are much more mixed. There are cities that are successful in terms of the knowledge economy, through to former industrial cities and regions that are in prolonged decline (such as the rust belt cities of the northeastern United States). At the same time there are the rapidly emerging megacities of east Asia in economies that are growing apace but that combine elements of all stages of economic activity and social division and difference experienced by cities of the north over a much longer period. Thus the emerging megacity of the region of Hong Kong, Shenzhen, Guandgzhou, Macau, and the settlements of the Pearl River delta, with a population way in excess of the 50 million of the megalopolis of the US, combines the infrastructure and the economic sectors and social enclaves to form a kaleidoscope of medieval and modern production systems, subsistence economies alongside world leading electronics and communications manufacture. There are the rapidly growing cities of sub-Saharan Africa where financial infrastructures are fragile and cities and nations are locked in a world economy through indebtedness and unequal trade based on prior colonial relationships and ongoing global forms of capital exploitation of raw materials and crops.

The global implications of these different economic timings and trajectories seem very evident in the question of the future of the environment. The nations of the global north, which have had a prolonged period of economic growth and development and have been the biggest energy users, are looking for cuts in activity and

energy use from some nations of the global south that are going through more rapid economic growth in the present era. Discussions and disagreements occur at various climate summits over the degree to which the global north should help finance technologies to reduce carbon emissions in the global south and the economic and lifestyle measures required to cut emissions in the north. It can be argued that, as well as compensating for different histories of development as traditionally understood, a reconceptualization of the idea of development and economics is emerging. This includes discussions of no growth and negative energy impacts in the more market-oriented ideas, through to neo-Marxist analysis of what Swyngedouw and Kaika (2000) have called the production of the more equitable socioeconomic commons. This connects to arguments that the whole idea of economic and urban development has been dominated by western ideas and discourses. The importance of postcolonial analysis in urban studies has been understood for some time (see King 2003). Jenny Robinson has very usefully addressed the need for a postcolonial, alternative understanding of cities and development (Robinson 2005). She argues that urban analysis has looked too narrowly at certain forms of economic activity (finance, the knowledge economy, and creative industries) that skews the view urban economics has towards global cities, globalization, and the space of flows between globally connected cities. This has meant that certain sorts of cities and parts of those cities have received disproportionate analyses. Robinson calls for a reorientation towards the whole city and the ordinary, rather than extraordinary or global city. From the perspective and experience of cities of the south, the ordinary city contains a diversity of forms of economic activity (previously labeled formal and informal); a whole range of economic actors and institutions and ways of cooperating as well as competing. All of these hold profound lessons for what constitutes economic activity and significantly (in terms of global environmental issues) different models of how human life might be sustainable. Urbanists, as much as anyone, should look at the various forms of economic activity in a range of institutional settings and forms (including what has been called the social economy) in the ordinary cities of the global north and south.

Recent writing and research on the urban economies has suggested how market fundamentalism worked to control and order the wider social and cultural forces shaping cities. But, as we see in the other sections of this *Companion*, these social and cultural forces continue to open out new spaces and mobilities of engagement. Furthermore, we would suggest that this way of looking at the materiality of the city raises new questions about the relationship between democracy and the economic. New understandings of materiality suggest how the material environment (such as an urban infrastructure) can assemble human and non-human relations in ways that can open up new spaces for the public. The analysis of neoliberalism that has revealed the overly narrow idea of the market and the over-reliance on an idea of “pure” market activity (such as socially useless derivatives trading) unfettered by government activity or wider democratic norms, is more widely acknowledged and understood in the second decade of the twenty-first century than it was in the first. The challenge of global warming leads to an idea of nature that does not, and must not, sit outside the realm of democratic accountability and decision, and cities are the key arena for its political realization.

## References

- Agamben, G. (2005) *State of Exception*. Chicago: Chicago University Press.
- Alonso, W. (1964) *Location and Land Use: Toward a General Theory of Land Use*. Cambridge, MA: MIT Press.
- Amin, A., and Thrift, N. (2002) *Cities: Re-Imagining the Urban*. Cambridge: Polity Press.
- Badiou, A. (2008) Live Badiou – Interview with Alain Badiou, Paris, December 2007. In *Alain Badiou – Live Theory*, ed. O. Feltham. London: Continuum, 136–9.
- Cronon, W. (1991) *Nature's Metropolis: Chicago and the Great West*. New York: Norton.
- Engels, F. (1987) [1844] *The Condition of the Working Class in England*. Harmondsworth: Penguin.
- Farias, I., and Bender, T. (eds.) (2009) *Urban Assemblages: How Actor Network Theory Changes Urban Studies*. London: Routledge.
- Harvey, D. (1989) From managerialism to entrepreneurialism: the transformation in urban governance in late capitalism. *Geografiska Annaler B* 71: 3–17.
- Harvey, D. (1993) The nature of environment: dialectics of social and environmental change. In *Real Problems, False Solutions*, ed. R. Miliband and L. Panitch. A special issue of the *Socialist Register*. London: The Merlin Press, 1–51.
- Harvey, D. (2005) *A Brief History of Neoliberalism*, Oxford: Oxford University Press.
- Hayek, F. (2007) *The Road to Serfdom: Texts and Documents*. Chicago: University of Chicago Press.
- Heynan, N., Kaika, M., and Swyngedouw, E. (eds.) (2006) *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*. London: Routledge.
- King, A. (2003) *Postcolonial Urbanism*. London: Routledge.
- Latour, B. (2005) *Reassembling the Social: An Introduction to Actor–Network Theory*. Oxford: Oxford University Press.
- Latour, B., and Hermant, E. (2006) *Paris: Invisible City*. Trans. Liz Carey-Libbrecht. Available online at [www.bruno-latour.fr/livres/viii\\_paris-city-gb.pdf](http://www.bruno-latour.fr/livres/viii_paris-city-gb.pdf) (accessed October 18, 2010). Originally published in French in 1998, *Paris: ville invisible*. Paris: La Découverte-Les Empêcheurs de penser en rond.
- Leitner, H., Peck, J., and Sheppard, E. (eds.) (2007) *Contesting Neoliberalism: Urban Frontiers*. New York: Guilford Press.
- Marx, K. (1967) *Capital* (3 vols). New York: International Publishers.
- Mitchell, D. (2003) *The Right to the City: Social Justice and the Fight for Public Space*. New York: The Guilford Press.
- Robinson, J. (2005) *Ordinary Cities*. London: Routledge.
- Sorkin, M. (1992) *Variations on a Theme Park: The New American City and the End of Public Space*. New York: Hill and Wang.
- Swyngedouw, E., and Kaika, M. (2000) The environment of the city or the urbanisation of nature. In *The Companion to the City*, ed. G. Bridge and S. Watson. Oxford: Blackwell, 567–80.