Radical urban political-ecological imaginaries

Planetary urbanization and politicizing nature

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It's no longer about nature in the city but the urbanization of nature itself, write Erik Swyngedouw and Maria Kaika. Welcome to the cyborg city, in which human and non-human inhabitants are globally linked through the circulation of water, energy, fat, chemicals and viruses, among others.

It is vitally important to recognize that galloping planetary urbanization is the main driver of major, and often irreversible, socio-ecological transformations. Planetary urbanization refers to the fact that not only the majority of the world’s seven billion people live in cities (and set to rise to 70 per cent by 2050), but – more importantly – that a much greater number of people, often not living in places defined as cities, are directly or indirectly involved in assuring the continuation of the global urbanization process. Indeed, the sustainability of contemporary urban life – understood as the expanded reproduction of its socio-physical form and functioning – is responsible for 80 per cent of the world’s resource use (Bulkeley and Betsill 2005) and most of the world’s waste. The ecological condition and the socio-ecological problems spurred on by accelerating urbanization render the city indeed the pivotal site for grappling with the environmental conundrum we are all in and the combined and uneven socio-ecological apocalypse it engenders. What we wish to foreground in this contribution is not to show the urban roots of the environmental conditions, but rather why and how these urban roots are customarily ignored in much of urban theory and practice, and how the feeble techno-managerial attempts to produce more sustainable forms of urban living (understood in terms of a more benign socio-ecological urban relationship) actually continue to sharpen the combined and uneven socio-ecological apocalypse that marks the contemporary dynamics of planetary urbanization.

From the outset, we consider the city to be not just a heterogeneous assemblage of accumulated socio-natural things and gathered bodies in a densely concentrated space, but as a socio-spatial process whose functioning is predicated upon ever longer, often globally structured, socio-ecological metabolic flows that not only fuse together things,
natures and peoples, but does so in socially and ecologically and geographically articulated, but depressingly uneven, manners (Swyngedouw 1996). We are, therefore, not so much concerned with the question of the nature in the city, but rather with the urbanization of nature, that is the process through which all manner of natures are socially mobilized, economically incorporated (commodified), and physically metabolized/transformed in order to support the urbanization process (Heynen, Kaika and Swyngedouw 2005). Consider, for example, how the everyday functioning of the assumedly de-materialized affective economies that animate much of elite urban social and cultural life (IT-networks, social media, smart infrastructural networks and eco-architecture, informatics, and the like) are predicated upon grabbing minerals like Coltan (columbite-tantalite) in some of the socio-ecologically most vulnerable places on earth, upon production chains that are shaped by deepening uneven socio-ecological conditions, and upon a “re-cycling’ process that returns much of the e-waste to the socio-ecologically dystopian geographies of Mumbai’s or Dhaka’s suburban informal wastelands.

In this contribution, we shall chart, first, the strange trajectory of how the relationship between cities and environments has been scripted and imagined over the past century or so. Second, we shall suggest how the environmental question entered urban theory and practice during the late-twentieth century. And, finally, we shall explore how and why, despite our growing understanding of the relationship between environmental change and urbanization and a consensual focus on the need for sustainable urban development, the environmental conundrum and the pervasive problems it engenders do not show any sign of abating.

The curious case of twentieth century urban theory and practice

It is interesting to note that nineteenth-century urban theory and practice was decidedly animated by a concern with what today would be labelled sustainable urban development. While ecological science was still in its infancy, social theorists and urban engineers were acutely aware of how the urban process constituted a socio-ecological process. Consider, for example, Frederick Engels’s vivid analysis of the conditions of the working class in England in the mid-nineteenth century (Engels 1971). He chronicles how the ruthlessly exploitative socio-economic dynamics of capitalist urbanization were paralleled by socio-ecologically highly uneven urban conditions. For example, sanitary conditions in working class neighbourhoods resulted in reduced life expectancy and proliferating disease. The ecological niches in which poor households resided nurtured a rich ecosystem in which bacteria, rats, bad ventilation, and impoverished bodies lived in symbiotic exchanges detrimental for sustaining human life. His intellectual and political fellow-traveller, Karl Marx, had already explored how capitalist socio-natural metabolism and its associated production of new socio-natural conditions nurtured a metabolic rift between city and countryside, whereby soil exhaustion and socio-ecological decay in the rural domain was the flipside of accumulation of waste, excess, excrement and unsustainable development in the capitalist city (Foster 1999). In the wake of such socio-ecologically disastrous urban conditions, late-nineteenth century urban planners and engineers began to put an extraordinary effort in cleansing the city – both socially and physically – through, for example, water and sewage works, ventilation, and the planning of green areas. Consider how the British engineer Edwin Chadwick, founding father of urban eco-infrastructure, laid the foundations for a smart sanitary city avant-la-lettre by
radically re-engineering the flows of water, waste, and air in the city, while Baron Eugene Haussmann brought light and air (and the bourgeoisie) into central Paris.

While nineteenth century urban thought and practice was directly related to considering its ecological and environmental relations, the understanding of the urbanization process as a process of urbanizing nature was pretty much lost during the twentieth century. In many ways, twentieth century urban thought and practice became strangely de-naturalized. Nature became relegated to the material and discursive domains outside the city and practically monopolized by technocratic engineering professions. The Chicago School of Urban Ecology, for example, while mobilising ecological signifiers, considered urban dynamics exclusively in terms of social, economic or cultural processes. With a few notable exceptions, like Lewis Mumford or Murray Bookchin, urban thought and practice under high modernity became radically severed from its ecological and environmental entanglements. Urban eco-technologies were directed towards producing an idealized environmental inside the home by carefully engineering domestic temperature, ventilation, humidity, sanitation, etc., often with detrimental effects on external socio-ecological conditions (Kaika 2004).

The post-war hegemony of positivist urban science and engineering further consolidated the view that the urban had severed its ties from nature, that the city could be thought and practiced as the triumph of the human over the non-human. The hegemony of a de-naturalized urban theory unfolded precisely at a time when engineers modelled and built the networked infrastructure that permitted the incessant and accelerating movement of all manners of natures into, through and out of the city, creating the metabolic vehicles (like pipes, ducts, cables, canals, (rail)roads, etc.) that sustained large-scale urbanization. Even the radical urban theories that began to animate urban thought and practice, pioneered by the seminal work of Henri Lefebvre (1974), Manuel Castells (1972) and David Harvey (1973), from the early 1970s onwards, were symptomatically silent about the socio-ecological dynamics that underpinned the capitalist urbanization process or considered how the urbanization process co-produced increasingly problematic socio-ecological conditions. In fact, most of radical cultural, social and political urban thought (and practices) that became intellectually hegemonic during the late twentieth century were strangely silent about the devastating ecological processes that paralleled a still accelerating urbanization process.

EUREKA! Ecologizing the urban

The tendency to foreground the urban process as a vital and integral part of our socio-ecological predicament emerged with the accentuation of deteriorating environmental conditions in the 1970s. While the lone voices of earlier visionaries had largely gone unnoticed (see, for example, Bookchin (1992), Ian L. McHargh’s seminal 1969 system’s theoretical advocacy of *Design with Nature* had hesitantly begun to re-introduce explicitly the environmental issue again into urban practice (McHarg 1969). But much more importantly was the Malthusian clarion call of pending resource depletion pioneered by the Club of Rome’s *Limits to Growth*, raising the spectre of immanent scarcity in nature, that got the global elites worried about the allegedly feeble prospects for sustaining capitalist accumulation for much longer, and pointed to urbanization as the main culprit of the world’s accelerating resource depletion (Meadows et al. 1972). In addition, the budding environmental movement, in the Global North particularly active
around contesting the nuclear edifice, and galloping hyper-urbanization in the Global South, propelled environmental matters to the top of the urban policy agenda. The paradigmatic hole in the ozone layer and the subsequent call to undertake urgent action, for example, was largely put at the door of CFCs used in domestic appliances.

Urban thought and practice followed suit. Increasingly, urban scholars began to dissect the urbanization of nature as a process of continuous de- and re-territorialization of metabolic circulatory flows, organized through socially managed physical conduits or networks (Swyngedouw 2006). These processes were seen to be infused by relations of power and sustained by particular imaginaries of what nature is or should be. Under capitalism, so the argument went, the commodified relationship to nature and its associated transformation in and flow of money suture these socio-ecological processes and turn the city into a metabolic socio-environmental process that stretches from the immediate environment to the remotest corners of the globe (Heynen et al. 2005).

Through this conceptual lens, urbanization is viewed as a process of geographically arranged socio-environmental metabolisms that fuse the social with the physical, producing a cyborg city (Swyngedouw 1996; Gandy 2005) with distinct physical forms and incongruous socio-ecological consequences. A range of inspiring work has substantiated, both empirically and theoretically, how cities and their human and non-human inhabitants across the globe are linked through networks and flows of technology, and social relations of power for the circulation and disposal of water, energy, fat, chemicals, viruses, e-waste (Pellow 2007), household waste (Njeru 2006), redundant ships (Buerk 2006; Hillier 2009), ducts, pipes, cables, and channels (Graham and Marvin 2001). Gandy’s Concrete and Clay narrates New York’s urbanization process as a political-ecological construct (Gandy 2003), Kaika’s City of Flows considers the cultural, socio-economic and political relations through which urban socio-natural flows are cast and recast during modernity (Kaika 2005), Swyngedouw’s Social Power and the Urbanization of Nature excavates the relationship between cities and nature through the lens of water (Swyngedouw 2004), Desfor and Keil examine the socio-ecological productions that shape Los Angeles and Toronto (Desfor and Keil 2004). Bakker follows the flow of water through the privatization politics of England and Wales (Bakker 2003), and Saurí et al. explore the political-ecological dynamics, conflicts and struggles around Barcelona’s urban water supply (Masjuan et al. 2008; March and Sauri 2013). Davis excavates the peculiar ecologies of cities that should not be where they are (Davis 2002). Freidberg’s majestic study demonstrates how green beans link African cities to Paris and London (Freidberg 2004), while William Cronon excavates how Chicago became the great city of the U.S. mid-West through incorporating its hinterland nature into the city’s metabolic and spatially expanding transformation (Cronon 1991), Klinenberg shows that heat can be a matter of life or death in contemporary Chicago (Klinenberg 2002). Brechin narrates how San Francisco’s elites rummaged through nature in search of earthly gain and power (Brechin 2001). Burrowing into the metabolic process of less visible, yet powerfully important socio-natural actants, Ali and Keil map how the SARS epidemic challenged global networks of urban governance (Ali and Keil 2011), Bulkeley searches for the urban roots of CO2 (Bulkeley and Betsill 2005), and Robbins reconstructs the networks of pollution and toxic waste that sustain the green suburban lawn (Robbin 2007).

The above insights contributed to delegitimizing dominant twentieth century perspectives on the city that ignored nature, without falling into the trap of nature fetishism or ecological determinism. Moreover, by transcending the binary division between nature
and society the urban metabolism perspective has shown that socio-ecological processes are intensely political, and confirmed that urban theory without nature cannot be but incomplete.

However, this body of thought has paid relatively little attention to the political opportunities such a perspective could bring, or to imagining radically different future urban socio-ecological assemblages. Thus, although we may now be able to trace, chart, follow, and narrate the multiple socio-ecological lines that shape the urban process both locally and globally, precisely little has been said about how to produce alternative, more equitable and enabling, urban socio-ecological assemblages. “What is required”, Mark Whitehead argues, “is a political methodology of urban nature” (Whitehead 2003: 280).

Deadlock! The strange non-performativity of the urban environmental concern

Despite this extraordinary leap forward in critical understanding of the urban environmental condition and a consensual public concern with the urban environmental condition, exemplified by the ubiquitous attention that city governments and governors pay to urban sustainability in virtually every city in the world, precisely little is achieved in deflecting the trajectory of greenhouse gas accumulation in the atmosphere, expanding natural resource use, biodiversity loss, and accelerating privatization and commodification of the commons of the environment. Despite the omnipresent attention to sustainable and smart eco-technologies, and the consensual concern with sustainable urban policies and life styles, the global ecological conditions continue to deteriorate at an alarming rate as planetary urbanization intensifies. This is a veritable paradoxical situation that can only be rendered legible in strictly ideological terms. As Slavoj Zizek put it: “Despite the fact we know very well (the ecological predicament that we are in), we continue to act as if we do not know” (Zizek 2008b). While the techno-managerial elites desperately attempt to micro-engineer the socio-ecological conditions in ways that permit both sustaining economic growth indefinitely into the future and turning environmental technologies into a green accumulation strategy, the depth and extent of environmental degradation gallops further in, what Williams calls “a combined and uneven apocalypse” (Williams 2011).

It is also becoming abundantly clear that the ecologists’ clarion call, borrowed from the twentieth century Italian communist, Amadeo Bordiga that “when the ship goes down, the first class passengers drown too” is manifestly untrue. The first class urban passengers are busily building rescue vessels while ecological refugees drown in the Mediterranean and others continue to live in the proliferating socio-ecological wastelands of their degrading environments. Planetary urbanization, unfolding through the universalization of the commodification and accumulation of natures within a neo-liberal political configuration, accelerates the process of combined and uneven ecological apocalypse, one increasingly sustained by the mythical promise of technologically mediated sustainability and post-democratic forms of governance that do not tolerate radical dissent or the pursuit of political-ecological alternatives. The de-politicizing techno-managerial pursuit that characterizes dominant modes of environmental governing sutures the ideological landscape and forecloses more politically grounded modes of producing a more egalitarian socio-ecological mode of governing and
transforming the urban socio-ecological commons (Swyngedouw 2009). Transgressing this deadlock between the real and present dangers of combined and uneven socio-ecological urban development on the one hand and the impotent acting of post-democratic sustainable management demand a serious intellectual and political engagement with some of the most intractable conditions our cities and world is in.

**New beginnings: Radical urban socio-ecological imaginaries**

The cultural, technical and political mediations through which the urban environment is (re-)configured cannot be understood without reference to discursive practices and their intertwining with material processes and outcomes. Three important and inter-linked claims have been made in recent work on sustainability, discourse and the post-political condition.

First, nature and its more recent derivatives, like environment or sustainability, are empty and floating signifiers (Swyngedouw 2010).

Second, there is no such thing as a singular Nature around which an urban environmental policy or environmentally-sensitive planning and technical intervention can be constructed and performed. Rather, there are a multitude of natures and a multitude of existing, possible or practical socio-natural relations and their socio-technical mediation. Nature becomes a tapestry, a montage, of meaning and equivalences, held together with quilting points (or points de capiton) through which certain meanings of Nature are knitted together, much like the upholstery of a Chesterfield sofa (see Zizek 2008a, Stavrakakis 1997, Swyngedouw 2010).

Third, the obsession with a singular Nature that requires sustaining or, at least, technoadministrative managing, is sustained by a particular quilting of Nature that forecloses asking political questions about immediately and really possible alternative urban socio-ecological arrangements.

In part due to the growing global awareness of the environmental crisis, contemporary representations of Nature have become more decidedly apocalyptic. The Real of Nature, in the form of a wide variety of ecological threats (global warming, new diseases, biodiversity loss, resource depletion and scarcity, pollution and excess), has invaded and unsettled our received understandings of Nature (Zizek 2008b; Swyngedouw 2013a).

These arguments are structured by the fundamental insight that the natures we see and work with are necessarily imagined, scripted, and symbolically charged as Nature. These inscriptions are always inadequate, they leave a gap, a remainder and maintain a certain distance from the natures that are there materially, which are complex, chaotic, often unpredictable, radically contingent, historically and geographically variable, risky, patterned in endlessly complex ways, and ordered along strange attractors (see, for instance, Lewontin and Levins 2007). This means, quite simply, that there is no foundational Nature out there that needs or requires salvation in name of either Nature itself or a generic Humanity. There is nothing foundational in Nature that needs, demands, or requires sustaining. The debate and controversies over Nature and what do with it, in contrast, signal rather our political inability to engage in directly political and social argument and strategies about re-arranging the socio-ecological co-ordinates of everyday life, the production of new socio-natural configurations, and the arrangements...
of socio-metabolic organization (something usually called capitalism) that we inhabit (Swyngedouw 2007).

The scripting of Nature that requires sustaining permits and sustains a post-political arrangement sutured by fear and driven by a concern to manage things so that we can hold on to what we have (Swyngedouw 2007). This constellation leads Alain Badiou to insist that ecology has become the new opium for the masses, replacing religion as the axis around which our fear for social disintegration becomes articulated (but also from where redemption, if the warnings are heeded, can be retrieved). Such ecologies of fear ultimately conceal, yet nurture, a conservative or, at least, reactionary discourse/message. While clouded in rhetoric of the need for radical change in order to stave off immanent catastrophe, a range of technical, social, managerial, physical and other measures have to be taken to make sure that things remain the same, that nothing really changes, that everyday life (or at least our lives) can go on as before. Is this not the underlying message of, for example, *An Inconvenient Truth* or of the report of the United Nation’s Intergovernmental Panel on Climate Change (IPCC) on the human consequences of global climate change? Both these narratives, in their very different representational ways (popular/populist on the one hand, scientific on the other), urge radical changes in the techno-organizational management of the socio-natural environment in order to assure that the world as we know it stays fundamentally the same (Zizek 2008b).

There is an urgent task ahead to delve into the complex linkages between discourse, post-political management and environmental socio-ecological inequalities. It is necessary to ask questions about what visions of Nature and what socio-environmental relations are being promoted; what quilting points are being used and how they are being stitched together; and who are promoting these visions and why, what issues and whose voices are being silenced in the process and how are these discourses competing with, altering and being altered by other alternative discourses. In this respect, we also need to consider the discourses of the more radical voices such as those of the environmental political movements or the various *indignados* that over the past few years have been demanding a new constituent democratic process.

Ultimately, the intellectual challenge posed by the socio-environmental conditions shaped by planetary urbanization must be to extend the intellectual imaginary and the powers of thought and practice to overcome the contemporary cultural injunction identified by Jameson that “it is easier to imagine the end of the world than changes in the eco-capitalist order and its inequities” (Jameson 2003: 76). This is the courage of the intellect that is now required more than ever, a courage that takes us beyond the impotent confines of a sustainability discourse that leaves the existing combined and uneven, but decidedly urbanized, socio-ecological dynamics fundamentally intact, and charts new politicized avenues for producing a new common urbanity.

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