Chapter 47

The Environment of the City...or the Urbanization of Nature

Erik Swyngedouw and Maria Kaïka

The question that now begins to gnaw at your mind is more anguished: outside Penthesilea does an outside exist? Or, no matter how far you go from the city, will you only pass from one limbo to another, never managing to leave it?

Italo Calvino ([1974] 1979: 122)

The exploitation of man and of nature, which takes place in the country, is realized and concentrated in the city.

Raymond Williams ([1973] 1993: 48)

It is in many ways astonishing that in the ballooning literature on the environment and among the innumerable environmental social movements, the city often figures in a rather marginal or, worse, antithetical manner. Even more surprising is the almost complete absence of a serious engagement with the environmental problematic in the prolific literature on the city. At a time when the world is quickly approaching a situation in which more than half of its population dwells in big cities, the environmental question is generally often circumscribed to either rural or threatened "natural" environments or to "global" problems. Yet, the urbanization process is central to the momentous environmental changes and alleged problems that have inspired the emergence of environmental issues on the political agenda. Environmental movements are largely distinctly urban phenomena; environmental ideologies and discourses on the environment as well as the material transformation of nature generally originate in and radiate from the urban environment (Gottlieb 1993). In this chapter, we shall first consider ways of conceptualizing the relationship between nature and the city and argue that urbanization is a process of perpetual metabolic socioecological change that produces distinct (urban) environments or, in other words, the city is a process of urbanization of nature. We then revisit and critically assess the problematic character of the now popular notion of urban "sustainability." We shall subsequently discuss how the urbanization of nature has historically been infused by particular visions and ideologies about the "nature" of nature and of the city. In a final part, we shall make a case for a political-ecological perspective.

The Urbanization of Nature

In Nature, Justice and the Geography of Difference, David Harvey (1996) insists that there is nothing particularly "unnatural" about New York City or any other city. Cities are dense networks of interwoven sociospatial processes that are simultaneously human, material, natural, discursive, cultural, and organic. The myriad of transformations and metabolisms that support and maintain urban life, such as, for example, water, food, computers, or movies always combine environmental and social processes as infinitely interconnected (Swyngedouw 1999). Imagine, for example, standing on the corner of Piccadilly Circus and consider the socioenvironmental metabolic relations that come together and emanate from this global-local place: smells, tastes, and bodies from all nooks and crannies of the world are floating by, consumed, displayed, narrated, visualized, and transformed. The Rainforest shop and restaurant play to the tune of ecosensitive shopping and the multibillion pound eco-industry while competing with McDonald's burgers and Dunkin' Donuts; the sounds of world music vibrate from Towers Records and people, spices, clothes, foodstuffs, and materials from all over the world whirl by. The neon lights are fed by energy coming from nuclear power plants and from coal or gas burning electricity generators. The coffee I sip connects me to the conditions of peasants in Columbia or Tanzania and to the Thames River Basin as much as to climates and plants, pesticides and technologies, traders and merchants, shippers and bankers, bosses and workers. The cars burning fuels from oil-deposits and pumping CO₂ into the air, affecting forests and climates around the globe, further complete the global geographic mappings and traces that flow through the urban and "produce" London's cityscape as a palimpsest of densely layered bodily, local, national, and global - but geographically depressingly uneven - socioecological processes. This intermingling of things material and symbolic combines to produce a particular socioenvironmental milieu that welds nature, society, and the city together in a deeply heterogeneous, conflicting, and often disturbing whole (Swyngedouw 1996).

The socioecological footprint of the city has become global. There is no longer an outside or limit to the city and the urban process harbors social and ecological processes that have a myriad of local, regional, national, and global connections:

The town exists only as a function of circulation and of circuits; it is a singular point on the circuits which create it and which it creates. It is defined by entries and exits: something must enter and exit from it. It imposes a frequency. It effects a polarisation of matter, inert, living or human.... It is a phenomenon of transconsistency, a network, because it is fundamentally in contact with other towns. It represents a threshold of deterritorialization because whatever the material involved, it must be deterritorialized enough to enter the network, to submit to polarisation, to follow the circuit of urban and road recoding. The maximum deterritorialization appears in the tendency... to separate from the backcountry, from the countryside (Deleuze and Guattari 1997: 313–16).

As Raymond Williams (1973) already pointed out in *The Country and the City*, the transformation of nature and the social relations inscribed therein are inextricably

connected to the process of urbanization. The dialectic of the environment and urbanization consolidates a particular set of social relations through "an ecological transformation which requires the reproduction of those relations in order to sustain it" (Harvey 1996: 94). Those socioenvironmental changes result in the continuous production of new "natures," of new urban, social, and physical environmental conditions. All of these processes occur in the realms of power in which actors strive to defend and create their own environments in a context of class, ethnic, racial and/ or gender conflicts, and power struggles. Of course, under capitalism, the commodity relation veils and hides the multiple socioecological processes of domination/ subordination and exploitation/repression that feed the capitalist urbanization process and turn the city into a kaleidoscopic metabolic socioenvironmental process that stretches from the immediate environment to the remotest corners of the globe. Indeed, the apparently self-evident commodification of nature that fundamentally underpins a market-based society not only obscures the social relations of power inscribed therein, but also permits disconnecting the perpetual flows of transformed and commodified nature from its inevitable foundation, that is, the transformation of nature (Katz 1998).

In sum, the environment of the city (both social and physical) is the result of a historical-geographical process of the urbanization of nature. In the city, society and nature, representation and being, are inseparable, integral to each other, infinitely bound up, yet simultaneously, this hybrid socionatural "thing" called city is full of contradictions, tensions, and conflicts. The city becomes the palimpsest landscape that captures those proliferating objects that Donna Haraway calls "Cyborgs" or "Tricksters" (Haraway 1991, 1997) or that Bruno Latour refers to as "Quasi-Objects" (Latour 1993, 1996); they are intermediaries that embody and mediate nature and society and weave networks of infinite transgressions and liminal spaces. If I were to capture some of the metabolized flows that weave together the urban fabric and excavate the networks that brought them there, "I would pass with continuity from the local to the global, from the human to the non-human" (Latour 1993: 121). These flows would narrate many interrelated tales of the city: the story of its people and the powerful socioecological processes that produce the urban and its spaces of privilege and exclusion, of participation and marginality. These wouldbe stories of rats and bankers, of diseases and speculation in frozen pork bellies, or Nikkei-index futures and options, of chemical, physical, and biological reactions and transformations, of global warming and acid rain, of the capital, machinations, and strategies of city builders, of urban land developers, of the knowledges of the engineers, the scientists, and the economists. In sum, excavating the flows that constitute the urban would produce a political ecology of the urbanization of nature.

Yet, all this seems nevertheless very remote, if not antithetical, to "nature," to the "green and pleasant land" not tainted by humans and left to its own devices and fundamental laws of life as excavated by biologists, chemists, or physicists, and celebrated by many ecologists as the ultimate ecological frontier. In many of these accounts, the city figures as the antithesis of the assumed harmonious and equitable dynamics of "nature," and the "urban question" necessitates – so they argue – a decidedly anti-urban development trajectory (Trepl 1996).

(Un)thinking the Sustainable City

In the emerging literature on "the sustainable city," very little attention has been paid so far to the urban as a process of socioecological change, while discussions about global environmental problems and the possibilities for a "sustainable" future customarily ignore the urban origin of many of the problems. Of course, "environmental" issues have been central to urban change and urban politics for at least a century if not more. As will be discussed below, visionaries of all sorts lamented the "unsustainable" character of early modern cities and proposed solutions and plans that would remedy the antinomies of urban life and produce a healthy "wholesome" urban living. Although the rhetoric has changed and new concepts like "sustainability" have become fashionable, the deep anti-urban sentiment combined with an idealized and romanticized invocation of a "superior" natural order has rarely been so loud. Much of these debates about restoring a more environmentally sound urban fabric ignore the very foundations on which the contemporary urbanization process rests.

Although Henri Lefebvre (1991) does not address the environment of the city directly, he does remind us of what the urban really is, i.e. something akin to a vast and variegated whirlpool replete with all the ambivalence of a space full of opportunity, playfulness, and liberating potential, while being entwined with spaces of oppression, exclusion, and marginalization. Cities seem to hold the promise of emancipation and freedom while skilfully mastering the whip of repression and domination. Ironically, relations of domination and power that infuse urban practices and which are contested and fought against in innumerable ways help create the differentiated environments that give cities their sweeping vitality. At the same time, these forms of resistance and subversion of dominant values tend only to perpetuate the conservative imagery of cities as places of chaos, social and environmental disintegration, and moral decay. Perpetual change and an ever shifting mosaic of environmentally and socioculturally distinct urban ecologies - varying from the manufactured landscaped gardens of gated communities and high-technology campuses to the ecological war zones of depressed neighborhoods with leadpainted walls and asbestos-covered ceilings, waste dumps and pollutant-infested areas – still shape the choreography of a capitalist urbanization process. The environment of the city is deeply caught up in this dialectical process and environmental ideologies, practices, and projects are part and parcel of this urbanization of nature process. Needless to say, the above constructionist perspective considers the process of urbanization to be an integral part of the production of new environments and new natures which sees both nature and society as fundamentally combined historical-geographical production processes (see, among others, Smith 1984, 1996, 1998; Castree 1995). This perspective has major consequences for political strategy. As Lewontin (1997: 137–8) insists:

the constructionist view... is of some consequence to human action. A rational environmental movement cannot be built on the demand to save the environment, which, in any case, does not exist... Remaking the world is the universal property of living organisms and is inextricably bound up with their nature. Rather, we must decide what kind of world we want to live in and then try to manage the process of change as best we can approximate it.

In this sense, there is no such thing as an unsustainable city in general, but rather there are a series of urban and environmental processes that negatively affect some social groups while benefiting others. A just urban socioenvironmental perspective, therefore, always needs to consider the question of who gains and who pays and to ask serious questions about the multiple power relations through which deeply unjust socioenvironmental conditions are produced and maintained. This requires sensitivity to the political ecology of urbanization rather than invoking particular ideologies and views about the assumed qualities that inhere in nature itself. These ideologies have nevertheless permeated much of urban policies and practices over the past century or so. This is the theme we shall turn to next.

Tales of Nature and the City: Taming the Urban Wilderness and "Ecologizing" the City

To combat nature or to "enter into" it to the point of penetration; to grasp its dialectical aspects with respect to concentration; to order it geometrically, or to make of it, in cultivating one's garden, ideal nature, a chosen cosmological precinct (earthly paradise, nature propitious) to human living as against wild nature; or pedagogically to invoke it as mirror of truth and goodness of man – these are attitudes to which have corresponded, each in turn, precise and differentiated architectural responses.

Gregotti ([1966] 1993: 400)

Indeed, much of the history of modern urban planning has been infused and inspired by particular scriptings of the "nature" of nature. Gregotti's enquiry into the relationship between nature and the built environment captures very well the multiplicity of meanings and the variety of ideas, visions, and practices that emerge from each of these imaginings of nature. As Smith (1984) argues, capitalist societies hold a decidedly contradictory view of nature. On the one hand, nature is perceived as inherently "good," as possessing some innate superior moral code that has been subverted and perverted through "civilization" and "urbanization." The city, as the epitome of modern capitalist civilization, is often branded as "evil" and harboring the underbelly of modern society. Many urban planners and architects in the past (Howard, Olmsted, Proudhon, Unwin, or Geddes to name just a few) have invoked a romanticized notion of a lost and pristine "nature" as a means for sanitizing the city, both in literal terms of combating pollution, but also as "social sanitation" from urban crime, "deviance" and "undesirable" marginal urban groups. On the other hand, nature also stands for the "uncivilized," the dark and untamed wilderness that requires control and whose frontier has to be pushed outwards as "progress" accelerates. This ambivalence permeates the history of both environmental and urban theories and resulted in a quintessentially schizophrenic attitude towards both nature and the city.3 These images of a wild and dangerous nature have been translated into the urban domain as well. The urban "wilderness" and the "concrete" jungle invoke images of an out-of-control urbanization process and an uncivilized "nature" which both need control and "mastering." At the same time, the city and a landscaped nature are heralded as the pinnacle of civilization, as "humanity's" triumph over the barbarism of uncivilized earlier times and as a sign of how the

frontier of wild and untamed "nature" receded as "humanity" has progressed. This double "coding" (superior moral and ecological order on the one hand; barbarian, wild and uncivilized on the other) of both nature and of the city has prompted many of the environmental debates on and practices about the city today as much as in the past. Much of the urban "sustainability" literature and visions (such as, for example, Agenda 21) hark back to at least a century-old view that pictures the city as dystopian, bleak, horrid, and full of antinomies, tension and dehumanizing conditions.

Indeed, the very idea of "sustainability" in the sense of some sort of harmonious, non-destructive, quasi-organic, socioecologically relatively stable or – at least – equitable development is by no means new. The horrid environmental conditions in the West's nineteenth-century cities have been lamented and commented on by many contemporary commentators and have inspired generations of social engineers, philanthropists, philosophers, and planners. Charles Dickens, for example, gripped by a nostalgia that creeps up whenever the modernist process of "creative destruction" erases the imprint of the past and constructs a space and environment more "in tune" with its time, chronicled the life of London's underclass and lamented the loss of an allegedly superior, but increasingly lost, organic nonurban social order. Tönnies and Durkheim, founding fathers of modern sociology, were captivated by the rapid modernization process and the accompanying rise of an urban order, which they each described in contradistinction to an idealized and disappearing more rural, environmentally equitable and harmonious, inherently humane social order.

The socioenvironmental urban blight threatened not only the well-being of the elites but also began to challenge the bedrock of capitalist society as the marginalized and oppressed began to demand access to more "sustainable" and better environmental conditions (in terms of shelter, food, hygiene, medicine, and consumer commodities). The class character that underpinned socioenvironmental injustices was conveniently swept under the carpet. Instead, the nature of the city (not of society) needed change, by producing a city more in tune with the rhythms and rhymes of nature itself. It is not a surprise to find that visionary elites such as Lord Leverhulme began to experiment with new forms of urban living and organization. Port Sunlight, the paternalistically designed proletarian utopia at the rural side of the Mersey was an early attempt to sanitize the industrial city and combine nature with "healthy" living as a means to stem the rising tide of social unrest and to safeguard the esthetic and moral order of the elite. Ebenezer Howard's Garden Cities of Tomorrow (1898) incorporated the codes of this imagineered urban utopia in a rational and "scientific" plan for an inclusive, orderly, and frictionless quasiurban form of spatial organization, based on a harmonious coexistence of urban and rural conditions: "But neither the town magnet nor the country magnet represents the full plan and purpose of nature. Human society and the beauty of nature are meant to be enjoyed together. The two magnets must be made one. As man and woman...supplement each other, so should town and country. The town is the symbol...town and country must be married" (p. 9).

British new towns breathe the spirit (but not necessarily the practice) of this, while Prince Charles's crusade for urban villages is one of its more recent expressions. At the other side of the Atlantic, Frederick Law Olmsted had already advocated a more symbiotic relation between nature and the city as a means to eliminate the evil emanating from the city and from "the pursuit of commerce" (Olmsted [1870] 1996). The sanitizing and purifying delights of "air and foliage" would, so he argues, turn parks and green havens into the new and true centers of the city. For both Le Corbusier and Frank Lloyd Wright – the gurus of twentieth-century modernism – entering nature into the city also became a means of restoring a healthy vitality to the city. While Le Corbusier advocated a geometrical symmetry in which regimented green spaces would provide the setting for his "machines for living," Wright pursued a much more organic integration of nature and building. While both intended to take further the nineteenth-century ideas of marrying nature with the city as a means of restoring social harmony and achieving "wholesome" ideal living, their vision of nature was infused by a particular scripting of the "nature" of the urban. In fact, as LeGates and Stout (1996: 376–7) argue, the ideal living environment of Wright's or Le Corbusier's new cities would guarantee social harmony and avoid the tensions and (class) conflicts that characterized capitalist cities.

This idealized vision of how nature would sanitize, reodorize or otherwise cleanse the city - both materially and spiritually - celebrated a particular imagining of a manufactured "nature" as a healing force while condemning the "nature" of the capitalist city as dehumanizing. Socioenviromental degradation through urbanization could only be stopped by means of bringing "nature" back into the city. Without minimizing the heroic attempts of these great urban thinkers to humanize (and ecologize) the city by means of restoring a presumably lost natural order, most of the attempts to produce a "natural" fix to the ills and pains of modern urbanization dismally failed to achieve the harmonious urban order its advocates had hoped for. Smokestack industries and some other forms of industrial pollution disappeared from the city centers, not so much because of environmental concerns, but because of a combination of spatial displacements to the suburbs or the Third World and economic restructuring. Green spaces were introduced, but they often quickly became the dark spaces where crime thrived and women or children stayed away from them unless permanent supervision could be guaranteed. Ironically, of course, all this took place in an age when the sanitation movement strove to eliminate some forms of nature (rats, bacteria, faeces, etc.) by putting then underground or out of town (Corbin 1994; Goubert 1989; Gandy 1998).

While urban reformers revelled in the utopian idea of creating a wholesome urbanism by injecting the idealized virtues of a life closer to a particular imagined form of a balanced and harmonious "nature," a new generation of city-lovers came to the defense of the urban. Lewis Mumford (1938), for example, revelled in the contradictory nature of modern urbanization. For him, it was an opportunity for social disharmony and conflict, the breath of the new, the cracks and the meshes that enable new encounters and where the unexpected can turn up just around the corner, the dramas and joys that the city creates and the suburbs lack. The landscaped garden settlements of the suburban revolution became those places where nothing happened and nothing ever will (dixit Lefebvre). The intellectual critique of the stale managerial functionalism has also been voiced by Jane Jacobs in Death and Life of Great American Cities in which she lamented the loss of the finely grained intermingling of diverse activities in the city streets that characterized early modern cities. Equally strong were the voices of Murray Bookchin or Richard Sennett ([1970]

1996) in elevating the power of gentle disorder and soft anarchy as potentially liberating and emancipatory forces. Once again, particular images and understandings of nature are invoked here to argue for a more anarchic or chaotic form of urbanization. Christopher Alexander ([1965] 1996), for example, distinguishes between "natural" cities and "artificial" cities, the former arising "spontaneously, over many, many years," the latter "those cities and parts of cities which have been deliberately created by designers and planners" (p. 119). The soft disorder, the apparently gentle frictions associated with mixing, heterogeneity and difference, and the playful ease of everyday life that he identifies with "natural" cities are seen as the social equivalent to the benevolent disorder of nature itself. Urban "sustainability" resides in mimicking the evolutionary process of nature. It is not a surprise that these proto-environmentalists would find a receptive audience with the emerging environmental movement in the 1960s and early 1970s. As early as 1969, McHarg's seminal book Design with Nature proposed the first guidelines to "ecologize" the city, to bring nature squarely into the multiple relations that structure the urbanization process. For him, nature is a single interacting system and changes to any part of it will affect the operation of the whole. Ever since, attempts to define or create the "sustainable" city have been inspired by views about the "greening" of the city and reducing pollutants of all kind emanating from urban life. 5 Of course, the "nature" of pollutants changed with the times. In the eighteenth-century, it was miasmas and putrid air, in the nineteenth-century rats and manure and in the twentieth-century bacteria and later CO2. They all shared a view that separated nature from the city, both conceptually and materially, as two distinct, yet interrelated, domains. The understanding of what "nature" is inspired views about what the city ought to be. Of course, the "nature" of nature could be marshaled flexibly. The absence of a clear view of what "nature" really is renders it open for all manners of interpretation and legitimization. The "flexibility" of the concept resides exactly in the process of separating things natural from things social which permits a discursive reading of what nature is to serve specific social ends, while ignoring the inevitable mediations between "nature" and "society."

Towards a Political Ecology of the Urban

While planners and urban scholars dwelled on the "nature" of the city, the urbanization process kept accelerating. In Europe today, more than 70 percent of the population lives in cities. On a world scale, we are rapidly approaching a situation in which more than half of the world's population lives in urban settings. Many postcolonial cities have become Malthusian battlegrounds in which a small elite enjoys a luxury beyond imagination, while so many others are engaged in a daily struggle for survival. In an environment in which sociospatial ordering by and for the market has become the dogma of the day, urban regions have become, more than ever before, landscapes of power where islands of extreme wealth and social power are interspersed with places of deprivation, exclusion, and decline. The powerful, for example, are now able to insulate themselves in hermetically sealed enclaves, where gated communities and sophisticated modes of surveillance are the order of the day. Controlled, manicured, and manufactured nature reinforces their sense of isolation while the environments of the underbelly of the city become dangerous ecological

war zones (Davis 1990). Many of the subtropical gardens in permanently irrigated suburban gated communities display a genetic diversity and a combined gene pool that is only matched by the rainforest (Archer 1998). Unhealthy high ozone concentrations in our summertime city centers, the proliferation of asthmatic and other respiratory diseases (tuberculosis is now again endemic in the rat-infested poor Bengali neighborhoods of East London), HIV and spreading homelessness are reshaping urban landscapes and may claim more casualties than even the most pessimistic predictions of the human consequences of global warming. An environmental "fix" to urban problems may "restore" some form of nature in one place while accelerating socioecological disintegration elsewhere. Meanwhile, the bursting life of the city can only be sustained at the cost of unsustainable environmental degradation in other parts of the world. While companies in our cities and regions desperately try to instill an image and practice of environmental sensitivity, they continue to ransack the ecologies of less protected spaces in the postcolonial worlds. Shell, for example, boasts about the environmentally sensitive new production unit recently constructed in Rotterdam, while continuing to support the state-condoned genocide of the Ogoni-people in Nigeria and the socioecological destruction of their land. Surely, in less protected social spaces, the environmental risk to which workers (men, women, and children) are exposed still strike us as one of the prime environmental problems. In the proliferating "informal" urban economies of many cities, environmental conditions are truly unsustainable in terms of maintaining human life.

Of course, such a political-ecological perspective is not particularly new either. Over 150 years ago, Friedrich Engels (1844) wrote a devastating critique of the conditions of everyday life of the Mancunian working class and represented the choreography of capitalist urban modernization as a spatial flow of perpetual disand relocation, including a deeply uneven geography of environmental and sanitary conditions. For him, the city was at the same time the incarnation of progress, of a liberation from the toil and bonds that cuffed humans to the land, as well as offering the possibilities of resistance to the processes of the exploitation, domination, and socioecological disintegration that characterized capitalist urbanization. In one of the other great writings of the time, The Communist Manifesto, Marx and Engels (1848) suggested how modern (capitalist) life rests on a process of perpetual creative destruction and the relentless reshaping of social and environmental conditions. Harmony, equilibrium, and an organic "natural" order are inimical to such restless reorganization of social and environmental conditions. For them, the transformation of nature and of society and the production of new forms, ideas, and environments operates through and is expressed by the contradictions engendered by the class character of capitalist society. The dystopian, putrid, and disintegrating cities reveal all the contradictions of capitalism, but they are also the harbinger of new social movements and of potentially emancipatory (socialist) politics that would bring both nature and the city under the egis of democratically controlled collective production process. While social Darwinists heralded a merciless and blind process of selection and competition, others - like Kropotkin (1901; [1914] 1955) and later Murray Bookchin - would insist on the possibility of remaking humanity and nature through cooperation, mutual aid, and the promotion of individual and collective freedom. Such perspectives insist that the environment is a collectively produced thing, the outcome of a process of socioecological change.

Over the past few years, a rapprochement has begun to assert itself between ecological thinking, political economy, urban studies, and critical social and cultural theory. William Cronon (1991), for example, in Nature's Metropolis, tells the story of Chicago from the vantage point of the socionatural processes that transformed both city and countryside and produced the particular political ecology that shaped the transformation of the Midwest as a particular American urbanized socionature. While symptomatically silent about the myriad of struggles that have infused this process (African-American, women's or workers' organizations and struggles are notoriously absent from or marginalized in his narrative), the book marks powerful pointers on the way of a political ecology of the urban. His masterly crafted rendition of the emergence of the Chicago Futures and Options Market on the basis of the socioecologically produced wheat landscape surrounding Chicago and the immense, but geographically uneven, time-space compression unleashed by the introduction of the telegraph, which disconnected the circulation time of information from that of the flow of commodities (in this case, wheat), provides a nearperfect analysis of how the nature and direction of ecological change intertwines with the dynamics of globalizing capital accumulation. This, in turn, fuses together in the emergence of particular institutions and practices that shape subsequent moments in the urbanization process.

Mike Davis (1990), from his part, in City of Quartz and other recent publications (Davis 1995, 1996) suggests how nature and society become materially and discursively constructed in and through the dialectics of Los Angeles' urbanization process and of the multiple social struggles that have infused and shaped this process in deeply uneven, exclusive and empowering/disempowering ways. For him, homelessness and racism combine with pollution, earthquakes, and water scarcity as the most acute socioecological problems that have been produced through the particular form of postindustrial capitalist development that has shaped LA's becoming the Third World Megalopolis. Indeed, the history of Los Angeles' urbanization process indicates how the socioecological transformation of desert lands, the manufacture of a socionature orchard, and subsequent construction of "silicon" landscapes is paralleled by urbanizing, capturing, and controlling ever larger and more distant watersheds, by speculatively pushing the frontier of "developable" land further outwards and by an ever changing, but immensely contested and socially significant (in terms of access and exclusion, empowerment/disempowerment) choreography of national laws, rules, and engineering projects (Worster 1985; Gottlieb and Fitzsimmons 1991; Fitzsimmons and Gottlieb 1996; Hundley 1992).

Of course, as the deserts bloomed, ecological and social disaster hit: water scarcity, pollution, congestion, and lack of sewage disposal combined with mounting economic and racial tension and a rising environmentalism (O'Connor 1998: 118; Gottlieb 1993; Keil and Desfor 1996). The rhetoric of disaster and scarcity often provided the discursive vehicles through which power brokers could continuously reinvent their boosterist dream. Picturing a simulacrum of drought, scarcity, and a return to the desert produced a spectacularized vision of the dystopian city whose fate is directly related to faith in the administrators, engineers, and technicians who make sure the tap keeps flowing and land is "developed." The hidden stories of pending socioecological disaster provide the ferment in which local, regional, and

national socionatures are combined with engineering narratives, land speculation, and global flows of water, wine, and money.

Environmental change and urbanization thus become deeply caught up in the political ecology of the local and national state, the international divisions of labor and power, and local, regional, and global hydroclimatological cycles. Viewing the city as a process of continuous, but contested, socioecological change, which can be understood through the analysis of the circulation of socially and physically metabolized "nature," unlocks new arenas for thinking and acting on the city; arenas that are neither local nor global, but weave networks that are always simultaneously deeply localized and extend their reach over a certain scale, a certain spatial surface. The tensions, conflicts, and forces that flow with this process through the body, the city, the region, and the globe show the cracks in the lines, the meshes in the net, the spaces and plateaus of resistance and of power. As the twenty-first century will be the century of the urban megalopolises (to borrow Jean Gottman's [1971] famous phrase), the central question for an emancipatory urban politics revolves around how to construct a city that is sensitive to these myriad connections and turn the city into one of the pivotal arenas where class, gender, and ethnic issues combine with ecological and environmental questions.

NOTES

- With some exceptions, such as Keil (1994; 1995; 1997), Gandy (1996), Harvey (1996), Swyngedouw (1996; 1997) Cronon (1991) and Davis (1990; 1995; 1996).
- 2. See, for example, Blowers (1993), Breheny (1992), Haughton and Hunter (1994) or, for a more critical perspective, Burgess, Carmona, and Kolstee (1997) or Baeten (forthcoming).
- 3. See, for example, Oelschlaeger (1991) or Wilson (1992).
- See, among others, Le Corbusier ([1924] 1971); Lloyd Wright ([1935] 1996; 1958); Fishman (1982).
- Pollution is, of course, also a strongly politicized concept whose meaning changes with time and place. For Mary Douglas (1984), for example, pollution is defined as "matter out of place."

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