13   Grounding and Worlding Urban Natures: Configuring an Urban Ecology Knowledge Project

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> There are two ways to lose oneself: walled segregation in the particular or dilution in the universal.
> —Aime Césaire, letter to Maurice Thorez, 1956

Central to this book are an urge and a curiosity to multiply the understanding of urban environments by taking in a wider urban experience. Rather than a global model that tries to grasp and decode urban environments in the same way wherever they appear, we have worked with the idea that what is required is an approach that sustains the multiplicity of urban nature, that affords and provides space for various ways of knowing and ways of being within and in relation to urban nature, and that produces an epistemologically and ontologically rich object of study, opening it toward conversations, collaborations, debates, and contestations. In a world that is urbanizing rapidly across a diverse set of cultural and biophysical contexts, it is crucial to open our understanding of urban nature toward a broader urban experience. At the very end of the volume, it is time to reflect on how the growing community who share an interest in urban environmental studies could move on in future work.

One way of taking the project forward would be to engage in a critical and constructive relationship with urban ecology as conceived within the environmental sciences. The meeting between scientific and narrative-based ways of knowing urban environments could focus on *how* knowledge is used in tangible conflicts and controversies. Sara Whatmore and the broader conceptual work built in the field of science and technology studies have opened one practical avenue. In her work on flooding in English towns, Whatmore brought natural and social scientific scholars and representatives from the

public together, not because they had an established stake in the matter, but to form a "competency group." The group collectively and transparently elaborated on *ways of knowing* flooding and its many social, environmental, and historical factors with the aim of "redistribut[ing] expertise across the 'scientific'/'vernacular' divide."[1] This put the onus not on *what* is known, but *how* something is known. The grounding and worlding approach of this book would be an important companion in such efforts to contextualize, not discard, scientific ways of knowing.

Another important move forward is to ask not only for in-depth case studies from one city or physical location, which was how we conceived this book project as a first necessary step to gain textured accounts, but to more explicitly design studies that develop comparative "productive geographies," exploring how urban natures are local yet connected to other locations (see also chapter 1 in this volume).[2] Urban scholars have been busy in developing these comparative geographies, including, for instance, studies of "translocal" forms of urban struggles that have followed Slum-Dwellers International, an alliance of marginalized neighborhoods across Asian, African, and Latin American cities;[3] "mobile urbanism" that studies how urban policies, standards, and expertise move and are translated across the world to influence local dynamics;[4] and comparisons across the global South and North of processes that marginalize people from potable water access in Indian and Californian cities.[5] Such comparative work does not seek to find the same variables or factors applicable everywhere, but looks for surprises and possibilities in how differences are played out, and how such differences could be used for theorizing.

Another challenge is how to integrate more-than-human approaches that seek to decenter the anthropocentric perspectives that lie at the heart of most urban and environmental studies. In the humanities and critical social sciences there has been an upswing of thinking that (urban) animals have narrative capacities that can help to open up, rather than pinning down, the anthropocentric view of cities that structures policy and politics.[6] However, while such approaches attend to quite easily identifiable nonhuman subjects, what also seems necessary is to account for wider forms of bio-agency. This could follow how Joshua Lewis approaches the complex coastal ecosystems in Louisiana, where he shows us precisely how humanmade infrastructures, which have been implemented over the course of 150 years, have created a historical-biophysical complex that

carries more-than-human agencies beyond simple "nonhumans" and as such shape politics in unpredictable and difficult ways.[7]

Finally—and we will return to this point below—to publish a book today on *grounding urban natures*, which contains studies from across most continents, means to face Western bias in constructive ways. Urban environmental studies, from scientific ecology to critical and poststructuralist geography and on to environmental history, are informed by specific habits of thinking history, city, and nature. We need to draw on postcolonial and decolonial scholarship to develop methods and collaborations to counter such habits and further multiply the ways through which urban natures are understood.

We now continue this chapter by taking our cues from the chapters to suggest a set of heuristics toward a repertoire for comparative urban environmental studies. Our aim is not to articulate a theoretical framework but rather to suggest a scaffold that can support study and collaboration. This aim is connected to William Cronon's edited volume *Uncommon Ground*, which inspired our work with this volume, in which chapters and authors represented a family of attempts that could not easily have been placed under a single rubric or theory but that still made a lot of work for establishing a new ground for critical environmental studies. Our volume also rests on a family of attempts, diverse and inspiring, that aims to explicitly pluralize and rethink urban nature from multiple locations, as well as offering methods and intellectual tools that can be useful in doing so.[8]

Act of Grounding: Articulating, Texturizing, Retrosembling, and Situating

The volume is, overall, an effort to *view urban natures as multiple* through the lenses of *grounding* and *worlding*. These two main heuristics form part of our treatment of comparative environmental urbanism in chapter 1 and they reverberate throughout the book's chapters. While grounding directs attention to how urban nature is reworked in particular places and becomes diverse through situated understandings, worlding tries to capture how places and urban natures are never only local. Instead, through the actions of experts, bureaucrats, activists, and scientists—and animals, vermin, and seeds—together with broader processes such as colonization, land dispossession, and world trade, urban natures are indeed connected from place to place. However, rather than using the meta-frame of globalization, we

draw upon how anthropologists, geographers, and historians have tried to address how localities become part of the world, each in its own particular and specific way.[9] On both sides of our analytical effort—the side of the *local* through grounding and on the side of the *extra-local* in worlding—we foreground texture and particularity with the aim of creating a theoretical transaction space for dialogue and contestation wherein the local is not domesticated within the global.

The *act of grounding* translates the unity of "urban nature" as a universal object of science or a backdrop for exploitation, capitalist or otherwise, into multiple social, political, and biophysical relations.[10] Grounding, in this sense, brings material to critique and problematize the simplification of urban nature through taxonomic or ecological scientific frameworks, that is, resisting the idea that urban nature is a stable knowledge object, a thing that can be studied with the same (universal) framework wherever you go. Grounding, on the contrary, goes into the midst of social struggles over how to use, abuse, cohabit, change, understand, and contest urban nature. By tracing or uncovering urban nature through *relations*, urban nature can become pluralized and socialized and include the agency of nonhumans and the vibrancy of matter.[11] What does urban nature mean in different places? How is urban nature composed, contested, and known? What does a given array of social arrangements in-and-through urban natures tell us about the city in question, its people, country, region, and place in the world?

This stance is resonant with how "place" has been thought within relational thinking in human geography. Rather than taking an essentialist approach, we follow Doreen Massey in viewing place as a relational and historical phenomenon, brought about through associated multiple understandings that different social groups might have.[12] This relational and dynamic view, which is akin to what Torsten Hägerstrand termed the "processual landscape" (*förloppslandskapet*), foregrounds a process-driven way to understand the entanglements by which human and nonhumans come together.[13] It also resonates with what Neil Smith called "the production of nature" and what Sverker Sörlin and Paul Warde have referred to as "environing."[14]

At the core of all these efforts, including our own in this volume, lies an urge to differentiate through critical historical and social scientific methods the seemingly basic backdrop categories of "nature," "ecology,"

and "environment" and to let them emerge as practice-based, contested, and dynamic. Urban natures, hence, are not *other natures*, they are *differently grounded natures located elsewhere* than where we thought not so long ago that nature's conventional place was supposed to be.

Accompanying the act of grounding, we suggest four analytical tactics: *articulating*, *texturizing*, *retrosembling,* and *situating*. These are all interlinked and overlapping, but we articulate them separately to demonstrate how they build on a wider literature and gain strength when bundled together.

Articulating refers to making legible certain elements for interpretation, evaluation, debate, or struggle. This is accomplished by scientists and scholars, but also by artists, photographers, landscape architects, and journalists, including activists mobilizing to protect a park, a wetland, or an urban forest. Articulation is thus part of a very general sociomaterial practice that assembles actors, artifacts, and social arenas to construct and provide wider narratives and meanings for particular things and elements.[15] It assigns value (negative or positive) to objects, wetlands, trees, parks, and species, but also operates to define and make visible, and thus contestable, sociomaterial flows such as waste, water, or toxic substances. Articulation is the narrative practice of analyzing and making sense, and a key component of making politics about urban nature at all possible. In this volume we see articulation being used in several chapters. Jens Lachmund (chapter 9) articulates the emergence of urban ecological regimes in Berlin over a one-hundred-year period, placing each within a set of practices and moral ideas of value that shifts with technology, science, and sites—from urban nature as part of an "organic whole," to scientific urban ecology in postwar Berlin, to contemporary popular practices of community gardening. This provides grounds for critiquing what aspects and ways of knowing urban nature that these regimes hide and highlight. Furthermore, Lance van Sittert (chapter 10) narrates the construction of designated natural spaces in apartheid Cape Town, which he shows received their particular meanings within a discourse of white supremacy and racial segregation that highlights certain aspects and values of urban nature instead of others. Similarly, James Evans (chapter 11) articulates how an abstract, mobile, and science-based urban ecology framework emerged in Baltimore, Maryland.

Texturizing means attending to detail and putting effort into acknowledging *how small things matter*—"small" meaning that which may appear small from some mainstream or hegemonic viewpoint. For those building global

models of urban ecology this will be a challenge, because if you travel with a strong framework in mind, a ready-made scheme to categorize the world, you will fail to appreciate the subtleties of different situations. The sensibility that comes with texturing in scholarly work is likewise intimately connected to making theory since texturizing could be understood, following James Clifford, as a "a matter of being aware of the difference that makes a difference in concrete situations, of recognizing the various inscriptions, 'places,' or 'histories' that both empower and inhibit the construction of theoretical categories."[16] However, to remain in "the local, 'experiential,' and circumstantial" is not enough; it has to be paired with an effort of working out *why* small things matter through comparative work, "looking beyond the local or experiential to wider, comparative phenomena."[17] This means that theory is not to be produced from lofty heights of abstractions ("global" or universal models, our habitual ways of thinking) but from particular locations and in the midst of detail and texture.

This tension between the assumptions we carry and the backgrounds we come from, on the one hand, and how we respond—as writers, activists, practitioners, citizens—to particular situations, on the other, drives home the productive tension between the local/particular and the global/general that needs to be kept close and explicit, and always needs to be revisited.[18] If this is not the case, the risk is that strong frameworks or concepts, such as social-ecological systems theory, metabolic rift, or biophilic/resilient/ smart cities, can come to create an expectation, a compulsion in the analyst/scholar to reproduce the framework or concept, rather than attending to the texture of place and locality.[19]

Texturizing also has to do with the quality of the analytical approach. With a vast flow of research money now being spent on urban and global environmental problems, thinking seems to be forced through a *generalized* idea of "the urban." With our grounding project being about putting nature in its right(ful) place, we sense a need to resist such nontextured models and return to textured narratives. Or, as Edgar Pieterse insists in relation to understanding new modalities of urbanization proliferating across the world, we need to profoundly revise the categories by which we think cities and politics. Pieterse has suggested that while trend data and demographics are important for responding to urgent developmental needs, we also need "theoretical searching," a space for inventing new categories by which to think cities. This includes, Pieterse continues, novel

collaborations with artists, poets, and other urban knowers from outside academia, plus an investment in writing and producing "intimate ethnographies" built upon long-term work in specific urban contexts.[20] We need more textured accounts to theorize the urban anew, accounts such as those developed in this volume and in particular from the emergent cities of the global South. With a recognition of more than a century-long tradition of urban scholarship, from Camillo Sitte and Patrick Geddes to our contemporaries Ananya Roy and Aihwa Ong, we aim to contribute a language of critique, or a "mid-range" theory, that can develop a more circumspect, yet more precise means for developing new sensibilities through which to think urban natures.[21]

In this book we see such work occurring when features of nature move from the emblematic to the agentive. It is when the waste-filled lands of Lagos are subject to thick descriptions that their manifold social, political, and environmental properties can emerge, as Lindsay Sawyer shows in chapter 3. Although the socioecological patterns of reproduced injustice that Anne Whiston Spirn sees in Philadelphia (chapter 4) are not dissimilar from what occurs in many cities, her intricately layered analysis of maps, school projects, and infrastructures has heuristic value in itself. This texturizing approach puts certain demands on scholars because it requires consideration of elements typically drawn from a multiplicity of disciplines. Texturizing is carefully done by Lisa Hoffman (chapter 7) as she allows us to understand the multiple roles that nonindigenous invasive plants play in the making of social relations and roles in Dalian, China. It requires attention to detail in order to appreciate the emergence of not only an object to be managed by volunteers, the "alien plant," but how volunteering itself becomes part of wider state practices of governing spaces and forming subjectivities. Urban nature becomes that lens through which what appears as disparate worlds or projects are interlinked—from the intimate and personal, to nature conservation, to norms of governing, to a site, as Hoffman writes, "to negotiate government responsibility, individual contributions, natural beauty, economic development and geopolitics." A similar connection between the intimate and local, and wider global processes of capital and forms of governing are reached through texture and detail in several of the chapters: in Richard Walker's (chapter 6) account of the San Francisco Bay Area, where urban politics combines with the history of local science and socioeconomic class patterns in a sequence of urban renewal regimes; in

Jia-Ching Chen's (chapter 12) study of the recent history of how local food production and agricultural disposession combine with hyper-fast urbanization, state-run globalizing business models, and associated development ideologies in Yixing City, China; in Amita Baviskar's (chapter 8) delicate account from Delhi about how a present-day urban leisure culture, with couples mating and dating under religious constraints, combines with the imperial planning of parks and urban ornaments to create places that were completely unforeseen and yet are both functional and aesthetic. "Interdisciplinarity" is perhaps not the most appropriate designation for these approaches; rather they make creative use of what is at hand to present the manifold entanglements of urban reality in and through urban nature.

While the two tactics described above are about paying attention to what is visible and ongoing in the present, or the proximate past, *retrosembling* is about the practice of *historicizing urban natures* from a necessarily partial and situated perspective, in contrast to a universal, omniscient framework that by default cannot exist. As such, retrosembling generates histories of urban natures that are admittedly contested and contestable. Indeed, like any historical account, it provides a selective cast of actors, institutions, objects, places, and discourses in telling a particular story.[22] Thus, it understands historicizing as a polyphonic and multiactor process, assembling the views and voices of different social groups rather than those of the single author.[23] Garth Myers's work on the "multi-vocality" of contested urban environments of African cities is instructive as he draws on, and draws in, voices from experts, tribal leaders, hip-hop artists, and novelists and their respective particular framings of cities, places, and nature.[24] The same effect happens in the cinematic ethnography film *One Table Two Elephants* by Jacob von Heland and Henrik Ernstson.[25] Through following botanists, street dancers, and a Khoisan historian, the film problematizes a linear way of narrating history, one that would rely overly on colonial archives and scientific modes of truth making, to allow the subaltern—people from the Cape Flats, the historically marginalized area of the city, and their equally serious practices of making sense of urban nature—to appear and structure the film's account.[26] Such vernacular histories can be seen as elements in a more democratic articulation of *future urban natures not yet known*.

This mode of multipronged analysis helps to dislodge singular, essentialist, and universalist ideas of nature and to emphasize instead, with Jens Lachmund, that "multiple natures are locally embedded in historically

specific social practices."[27] In this book this emphasis is demonstrated through particular practices of infrastructure engineering (see Joshua Lewis, chapter 2), the vernacular use of urban parks (Baviskar, chapter 8), processes of rediscovery through work in schools and archives (Spirn, chapter 4), ecological research that redefines the functional properties of ecosystems (Evans, chapter 11), economic-bureaucratic imaginaries (Chen, chapter 12), and social cooperation among amateur and professional "urbanists," or advocates of community (Walker, chapter 6). In these and other chapters in this book, retrosembling work is undertaken to understand, from the bottom up, the formation of urban natures, sometimes intentionally, sometimes unintentionally, sometimes in wildly different ways and with profoundly conflicting functions and politics, and then to situate them into the wider urban fabric.

This process pushes to the fore the quite self-evident point that urban form and urban future cannot be reduced to a given set of standard "solutions" or "policies" that could magically and universally enhance liveability and address environmental, health, and climate challenges. Rather than relying on external or universalist frameworks, the mode of analysis we are advocating contributes to calling attention to the multiple ways through which urban nature has been and will be known, used, protected, destroyed, and reworked.[28]

Finally, we take *situating* to mean the effort to *take each place seriously* for what it offers to theory. But situating, closely connected to the term "situated knowledges" as it has been developed across postcolonial, feminist, and critical science studies, also references a concern to recognize that when we leave universal knowledge claims behind, we embrace, as phrased by Gillian Rose, that "all knowledge [including the knowledge that we make ourselves] is produced in specific circumstances and that those circumstances shape it in some way."[29] This is what James Clifford refers to (in the third epigraph of chapter 1), that when we are are involved in making sense of a wider world, that is, in theorizing, both the places we have visited (our case studies, or archives) *and* ourselves as the traveler, our own positionality (class, race, ability etc.), are involved.[30] While we recognize that the chapters of this volume has developed less critical reflection on how positionality influences the writing of accounts, there is a creative impulse across the volume through taking each place seriously in tracing the active presence of nature in the urban fabric. Urban nature is *not* treated

as a backdrop or ornament or something marginal, but central in interpreting wider urban and socioenvironmental processes. Through this *situating* of their account, authors suggest new ways for thinking urban nature that in turn troubles global and universal models of urban ecology.

For instance, in both chapters 2 and 5 this situating involves juxtaposing unexpected appearances of urban nature with different forms of (urban) design. In Louisiana's vast coastal landscape, heavy cypress stumps reappeared when marshlands were dug out during the twentieth century, undermining the "great siphon," an engineering feat to linearize a vast coastal landscape to maximize port and real estate profits and to secure the city from large-scale flooding. Likewise, scorpions in chapter 5 creep up through shower grates in Córdoba to disturb modern dreams of sanitized homes; and in designing an alternative shower grate, Ávila and Ernstson can consider a much wider more-than-human geography that includes children, fear, downstream pollution, and decaying sanitation infrastructure. By situating the cypress stumps and the scorpion in the richness of the details that New Orleans and Córdoba offers, the authors demonstrate the analytical power of *grounding* (situating, articulating, texturizing and retrosembling) in undermining universal and simplistic models of urban ecology.

However, they also invite creative ideas for comparative research. For instance, what are the comparative geographies that we can assemble to explore how Promethean dreams of controlling nature are still haunting our societies today? Or, what *affective ecologies* are in the making across different urban landscapes today, those that move beyond rational, scientistic ways of formulating ecology and that include an appreciation of what binds humans and nonhumans together through fear (of scorpions and flooding) and love (of our children and survival of our city)? The book provides several more such comparative invitations. We could explore how green fields attract multiple groups of residents and experts over time in similar but different ways across the Bay Area (Walker, chapter 6), Delhi (Baviskar, chapter 8), and Berlin (Lachmund, chapter 9). And contemporary Dalian (Hoffman, chapter 7) and post-apartheid Cape Town (van Sittert, chapter 10) offer empirical terrain to think comparatively about how state-supported classifications of indigenous and "alien" plants resonates with the role that urban nature played in upholding white "civility" in apartheid. The book is pregnant with such creative comparative geographies that can inspire future research within comparative urban environmentalism.

Across these interlinked tactics, the act of grounding, consequently, translates urban nature from a simplistic or singular entity—the "urban nature" *qua* "green space" standard—into an open-ended, multifaceted, and plural idea and materiality that is a vibrant, inseparable, constantly changing element of a fluid and extended urbanity. Apart from discovering and unpacking urban natures, and speaking to and about them from various locations, this book has tried to provide examples of how different scholars have responded to the challenge of grounding. They have thus generated multiple historically and geographically specific configurations of urban nature and also demonstrated various methods of how to accomplish this. Situating, articulating, texturizing, and retrosembling are in this respect individually helpful and mutually reinforcing methods for providing historically and empirically valid presentations of the increasingly important "natural" dimensions of the urban.

Act of Worlding: Locatable Practices of Translation

Having proposed an act of grounding, from within and below, we now turn to the act of *worlding*. As an analytical alternative to "globalization" or "the planetary," world*ing* is viewed as those ongoing, continually negotiated, and locatable practices by which thought, things, and places become part of a wider world.[31] For AbdouMaliq Simone it provides a lens to explore the practices through which urban residents access and participate in a "larger world."[32] Similarly, for Ananya Roy and Ahiwa Ong, it represents the "practices that creatively imagine and shape alternative social visions and configurations—i.e. 'worlds'—that are wider than what already exists in a given context."[33] Importantly, for them, the study of the practices of worlding by actors ranging from elites to subalterns invites a mid-range theorizing that "dives below high abstraction to hover over actual human projects and goals unfolding in myriad circumstances of possibility and contingency."[34] For our approach, the worlding of urban natures is about focusing on situated practices that strive to rework socioenvironmental relations in particular places, while at the same time viewing these practices as connected in tangible ways to practices elsewhere.

It is crucial for the understanding of the current phase of urbanization that we see worlding as an empirical—that is, a historical—phenomenon in its own right. Urbanization will not adapt to proclaimed policy or theory, nor will it emulate or imitate previous phases; urbanization will first of all

happen and it is essential to insist on its being available in principle for even profound redirection and change. Urbanization, however broad and sweeping, is not planetary in the sense that it is an even force that flows around the world. Nor is it in any simplistic way part of a Western trajectory of globalization or progress, from Babylon to London, Los Angeles and, lately, Lagos, as it is sometimes presented. The concept of worlding works to replace a linear and simplistic arrow of time that moves in rhythm with (European, or today perhaps Chinese) progress, with a much more interconnected, notion of time and space as folded and intertwined where a locatable center is less certain. This decentring of origin uproots a problematic linear understanding of history, tackled head-on by Dipesh Chakrabarty in *Provincializing Europe*: "[Historicism, or the writing of history] consigned Indians, Africans, and other 'rude' nations to an imaginary waiting room of history [in which all nations and cities] were headed for the same destination … but some people would arrive earlier than others."[35]

We are now in a different world. When Roy and Ong (re)launched the concept within urban studies in 2011, worlding was not only a tool to bring the global South on an ontologically and historically equal footing with the global North, but also the opposite, to equal treatment of the North. The global South is neither "the subaltern" nor an inherently progressive location, but the global South also has, as Roy insists, ideological projects toward world-dominance.[36] In the multipolar world order that has coalesced since the end of the Cold War, Brazilian, Chinese, Arabian, Indian, and other nationalist-cum-geopolitical projects are in formation.[37] It is a world where agency is distributed and effects are, too. Worlding, in this context, provides a theoretical frame in which the old pattern of an evolutionary diffusion of urban norms and standards from the global North to the global South is, if it ever were, unrealistic. Loans and impressions exist, and they are multidirectional.

Historians have contributed constructively in undermining the linear historicist paradigm. From critical studies of the Garden City or Le Corbusier planning ideas, to critiques of "the centralized networked city" in terms of basic infrastructure,[38] they have also provided yet other starting points to multiply understandings of urban natures. For their part, archaeologists and ethnobiologists have excavated what Paul Sinclair calls an "urban mind" that has origins going much farther back than the onset of urbanization in the West. Cities existed outside Europe many thousands of

years ago, and urban environments have ever since retained a multiplicity of manifestations across world regions, not only in Asia and Middle East but also including the Americas, where nature was a strong presence in pre-Columbian urban centers in both South and North America.[39] This "urban mind" stretches out in space and time and decenters the place from which "the city" has been thought, providing novel locations and archives to rethink urban natures.[40]

A textured narrative approach thus also acknowledges the *historical* (or idiographic, as conceived by Wilhelm Windelband) character of cities rather than treating them as *phenotypes*, or individual representatives of a common (nomothetic) genotype or standard category.[41] Cities, in this respect, have more in common with nations, or wars, or most other historical phenomena: they do share much in common, but it is their component differences that make a difference—both for people and nonhumans of the city, and for theory construction. These differences are brought about, not through globalization or agglomeration as a "higher" force that structures cities along any simple lawlike formula, but through how ideas, technologies, and policies translate from one place to another and get "inserted" or "accommodated" in very specific ways, each gaining a dialect or flavor of the specific place. The tension between uniqueness *of* place and translation *across* places is what makes a reflective *grounding* and *worlding* comparative approach possible. In this volume, contributors have traced and retraced how apartheid and Western forms of racism were configured into forms of urban nature in Cape Town, New Orleans, and Lagos; how industrial projects linked to certain ideologies have shaped urban natures in Dalian and Yixing; and how scientific methodologies, invented in Berlin and Baltimore, have produced certain conceptions of urban nature, *qua* ecologies, which tended to hide the relational, social, or historical context from where these conceptions originated.

Locating cities in the world and taking their own trajectory and historical tensions and contestations seriously is of central concern to us. This does not mean to suggest that there is no commonality, but that thinking in patterns must constantly be referred back to empirical roots. Cities are simply so *interestingly dissimilar* that the very attempt to bring "the urban" into a formula, as for example in a "science of cities" or a global urban theory, is innately insufficient. Or put differently, urban experiences and urban spatial forms always have a historical baggage *of the world* at the same time

as they are part of local politics and society, which affect their worldliness. While being in the world, they are also always unique. Worlding is, in this view, a looser kind of family resemblance, among other equally worldly, nonuniversal, and dissimilar spaces.[42]

A New Urban Narrative in the Making

This book has grown out of a range of fields, from environmental studies, human geography, and anthropology to urban history and urban studies. In our work, however, we have found how such distinctions, while obviously relevant, have failed to capture in full the integrative ambitions of our project to multiply the understandings of urban nature. To move further, we need wider intellectual collaborations—ones that also will have an effect on policy and broader discourse. There are at least four concluding points to make in developing a future agenda for comparative urban environmentalism.

First, through the sheer explosion of urban ecological and environmental studies in the last decades (which we reviewed in chapter 1), "the city" is undergoing a metamorphosis in environmental thought. In the past, naturalists contrasted the Eden of nature with the dark, Satanic mills of the city. In our time, the city has instead come to be increasingly portrayed as a wonderful organ of progress, opportunity, and, ultimately, sustainability. Neither image is realistic. While it is crucial to make "the city" central in discussions about sustainability, the new super narrative of the city—fueled by private-public partnerships high on "smart urbanism" and "green infrastructure," to grand sustainability visions of a city like Masdar City—is, if possible, even more idolized than how the city was vilified by English and North American novelists and poets in protoindustrial times. A grounding and worlding approach can slowly chip away and undermine such idealized, free-floating ideas about the city, building archives of textured accounts that can form the backbone of future scholarly projects and help to tie discussions about the future of cities and urbanization back into real cities and places.

Second, we see a possibility to work more closely with the emergent field of environmental humanities and draw upon its creative way of expanding the humanities to speak eloquently and richly into the environmental question, decentering the authority of the natural sciences. Through mobilizing much wider registers of knowing and engaging the public from the

archives of humanist practice, from filmmaking, theater, literature, and art, there is a rapidly evolving set of methods and frameworks that urban environmentalists can draw upon.[43] Our inclusive approach can challenge—and complement—the sciences by partnering with the environmental humanities and use research as a way to attract and co-create publics that matter in public discussions.

Third, even as we have emphasized localized and situated methods of working, we also need to address the growing discourse on *the planetary*. An earthlier geohistorical notion, operating on a wider scale than "the global" or "the world," "the planetary" invites work that crosses the nature/culture divide and speaks to ways that urbanization is intertwined with climate change and ecological upheaval. Such a perspective is exemplified, on the one hand, in the environmental humanities by works like those of Ursula K. Heise (*Sense of Place and Sense of Planet*) and Timothy Morton (*Hyperobjects*).[44] What might it mean for a grounding and worlding approach to take cues from this intellectual terrain? It could mean to draw on eco-critical approaches from literary theory to think planetary living in and through more-than-human city living; or, to follow Bill McKibben in his book *Eaarth,* to trace out what a defamiliarized and already profoundaly changed planet feels like and is understood to be in a world of cities. "The planetary" has also been mobilized within neo-Marxian approaches as the "planetary urbanization" thesis. Developed from Henri Lefebvre by Neil Brenner and Christian Schmid, it, too, undermines the dichotomy of nature and culture, but with an explicit and expansive urban lens.[45] Rightfully critiqued since "the planetary" is too crude a signifier to make sense of the multiplicity of urban politics in a world of cities, which we have argued for here,[46] this analytic is nonetheless able to grasp, as does Martín Arboleda in his study of a Chilean mining town, an urban system that has reached a planetary level never attained before:

> [Planetary urbanization] constitutes an important analytic to understand new forms and scales of urban fetishisation [i.e., how capitalist urbanization hides the sites and networks of its own production]. Indeed, operational landscapes like Huasco, which have been completely engineered to provide low-end energy for the extraction of raw materials destined for consumption in remote corners of the globe, are the geographical imprints of these expanded, wide-sweeping metabolic exchanges [i.e., flows of materials and capital]. Like the sewage and piping networks that feed the life of cities…, Huasco—as a provider of cheap energy—has also been hidden from view [in feeding planetary urbanization].

In comparison to techno-scientific attempts to frame urbanization at a planetary level, from Earth System Science–inspired models to digitial mapping techniques and the now famous nighttime satellite images of Earth often drawn upon in popular discourse, the planetary urbanization thesis insists on the uneven nature of capitalist development, undermining such depoliticizing viewpoints as that of viewing "the planet" as a home for us all, a "spaceship Earth," or associated notions of "Earth Stewardship" and a "good Anthropocene." As Jason W. Moore puts it, "the genius [of capitalism] was to represent time as linear, space as flat, and nature as external."[47] The lesson is that if social relations of power, production, consumption, and so on are not changed, then neither will the conditions that can enable a more sustainable and just urban living on the planet. A grounding and worlding approach to urban nature can certainly stand in a dialectical, and thus productive, relation to the planetary urbanization thesis. The rubbing against each other of a neo-Marxist analysis with and against postcolonial openings, the planetary with and against the textured and the minute, could provide the space for students and activists to think critically and emancipatorily through textured places and unsettle mainstream taken-for-granted ideas on how to tackle "global" or "planetary" environmental challenges.[48]

Finally, it is indeed intriguing to speculate about the possible emergence of a new urban narrative, something that can hold our different projects of research, activism and practices together. Ananya Roy has invited "genres of urban scholarship" to gather a field in an inclusive, yet not cosy consensual way.[49] Surely it will not be a single narrative, but many narratives and imaginaries that can guide how we work, how we think, and what we aim for. Such an enterprise would not only be useful for transformational work on the emerging cities and their environments of tomorrow, but would assist in profoundly rethinking the idea of the city or "the urban" itself. If von Thünen nearly two centuries ago developed a textbook version of "the city" as a concentric distribution of production and consumption, this is now not only a relic, but also the image of a highly hierarchic, nonsustainable, and unequal city.[50] The new models and imaginaries that are now populating urban theory, from "world of cities," to "ordinary" and "worlding" cities, to "mobile"/"rouge"/"black"/"translocal" urbanism, to "cities at the speed of light," or "planetary urbanization," offers new lines of flight to help rethink our urban world, its relation to the environment, politics, and ourselves.

Grounding and worlding as a means for understanding practices and places in textured ways and as connected to multiple elsewheres, offers a possibility of not losing ourselves in either the "walled segregation" of the particular or a "dilution in the universal," as phrased by Aime Césaire.[51] These ideas can carry real weight in the necessary work to question and undermine simplistic models and inherited biases of what the city and the environment represent. They can push for reform in urban thinking in professional education and policy formation. And they can assist in writing from multiple locations to uncover urban natures and their political ecologies past and future.

Notes

1. Quotations from Whatmore (2009, p. 595), with references to Isabelle Stengers and Bruno Latour. See also Lewis and Ernstson's (2019, section 2.4) work on "situational dissensus" in Louisiana coastal landscape.

2. Robinson 2014.

3. McFarlane 2009.

4. See McCann and Ward (2011), who emphasise how this circulation is globally uneven, structured by capital and knowledge production.

5. Ranganathan and Balazs 2015.

6. van Dooren and Rose 2012.

7. Lewis, chapter 2 in this volume; Lewis and Ernstson 2019.

8. Rather than, as Giovanna Di Chiro (1996) writes in the concluding chapter of *Uncommon Ground* (Cronon 1996, p. 452), as "a unified statement [to] reassure 'common ground,'" the commitment was "to develop…a critical discourse about 'nature' and 'environment' that did not attempt to come to final closure [but to] move toward 'uncommon ground.'"

9. Said 1983, pp. 24, 226–235; Simone 2001; Tsing 2005; Roy and Ong 2011.

10. See chapter 1, where we develop our critical, reflective approach based primarily on postcolonial approaches. As we write there in an endnote, we are not building from, nor developing "grounded theory" (Glaser and Strauss 1967).

11. Latour 2005; Bennet 2010.

12. Massey 2005.

13. Hägerstrand 1993.

14. Smith 1984; Sörlin and Warde 2009, pp. 1–19.

15. We have studied social articulation as a key entry point to understanding environmental struggles. See Sörlin (1998); Ernstson and Sörlin (2009, 2013); Ernstson (2013); and Erixon Aalto and Ernstson (2017).

16. Clifford 1989, p. 4.

17. Ibid.

18. See chapter 1 this volume on this point, with reference to Said (1983), Clifford (1989), and postcolonial/Southern urbanism (Parnell and Oldfield 2014).

19. Law 2009; Mol 2010; Ernstson and Lewis 2013.

20. Pieterse and Simone 2012; Pieterse 2014.

21. From a rich literature, including Sitte (1889); Anderson (1923); Geddes (1947) (with a historical critique by Datta 2013); and Geertz (1973).

22. See Cronon (1992), and often emphasized by Swyngedouw (2004).

23. The concept of *retrosembling* can be seen as bringing together a set of words—"resembling," "retrofitting," "assembling," and "reassembling"—that can help in thinking about how to write history. "Resembling" relates to the notion of constructing something that carries validity and truth; "retrofitting" involves going back in time to trace urban natures to their local roots, thus enhancing the practice of urban history; and "assembling" or "reassembling" is a conscious act of responsibly constructing an account that is partial and situated, yet evidence based and creative, as in for instance Bruno Latour's *Reassembling the Social* (2005).

24. See, for instance, Karvonen and Yocom (2011); Myers (2016, 2019); Erixon Aalto and Ernstson (2017).

25. The film (von Heland and Ernstson 2018) interrogates how race, nature, and knowledge are intimately intertwined in Cape Town as a postcolonial city and is inspired by Jean Rouch's (2003) work on "ciné-ethnography," but also on Premesh Lalu's (2009) *The Deaths of Hintsa*, which poses the question on how to write history in the postcolony.

26. The *histories of the margin* are not marginal at all, but rather make way for Dipesh Chakrabarty's (2000) idea of *History 1* (of capital) and *History 2* (of subalterns) as dialectically intertwined.

27. Lachmund 2013, p. 237.

28. McFarlane and Robinson 2012.

29. Rose 1997, p. 305.

30. As concepts, *situating* and *situated knowleges* draw upon the sensibilities developed by Edward Said (1983) and Gayatri Chakravorty Spivak (1988) in postcolonial studies,

and Gillian Rose (1997) and Donna Haraway (1998) and others in eco-feminist and critical science writing. More recently, there have been important developments in this direction of feminist (Truelove 2011; Harcourt and Nelson 2015), embodied (Doshi 2016), and postcolonial/situated urban political ecology (Lawhon, Ernstson, and Silver 2014; see also Ernstson 2013; Silver 2014; Lawhon et al. 2016).

31. Tsing 2005; Roy and Ong 2011. As a concept, worlding has a long tradition; in particular in Edward Said (1983, pp. 21–24, 226–235), who, in discussing "worldiness" and the role of the (literary) critic, emphasized the need to be connected and grounded when one make judgments about the world: "For Said," here quoting from Pal Ahluwalia (2005, p. 141), "theory can be effective only when it is located firmly within the world," meaning that it needs to be connected to real places. Or else we risk "affirming the values of our, that is, European, dominant elite culture" (Said 1983, p. 21).

32. Simone 2001. For an example, see Colin McFarlane's (2009) discussion about "translocal assemblages" in relation to the Slum-Dwellers International social movement to exchange practices, methods, and experiences of resistance and learning across cities of India, South Africa, Zimbabwe, the Philippines, and elsewhere.

33. Roy and Ong 2011, e-book location 662.

34. Ibid., e-book location 656.

35. Chakrabarty 2000, p. 8.

36. Roy 2014.

37. Cardoso 2015.

38. For historical studies, see the edited volume by Bigon and Katz (2014) on *Garden Cities and Colonial Planning* with studies from Africa and Palestine, Glover (2012) on the garden city in India, and Nilsson (2006) on water and sanitation systems in Kampala, Uganda. For recent critique and arguments to move beyond the imaginary of the centralized networked city, see Furlong (2014); Silver (2014); Coutard and Rutherford (2016); Monstadt and Schramm (2017); Lawhon et al. (2018).

39. Fernández-Armesto 1987; Heckenberger 2009; Barthel, Sörlin, and Ljungqvist 2010; Sinclair et al. 2010.

40. *The Urban Mind*, edited by Sinclair et al. (2010) reinterprets ancient forms of urbanization as economy, culture, and ecology and includes studies of Istanbul, the Middle East, and Pre-Colombian civilizations of Latin America.

41. Wilhelm Windelband (1901) developed the Neo-Kantian terms "idiographic" and "nomothetic" to describe two distinct approaches to knowledge: either a tendency to specify and understand the meaning of contingent, unique, and often cultural phenomena (typical for the humanities) or a tendency to generalize and derive laws to explain a phenomena (typical for the natural sciences).

42. Wittgenstein 2001 [1953].

43. Sörlin 2012; Heise, Christensen, and Niemann 2017.

44. Heise 2008; McKibben 2010; Morton 2013.

45. Brenner and Schmid 2012; Arboleda 2016.

46. Leitner and Sheppard 2016; Peake 2015.

47. Moore 2014, quotation from second paragraph.

48. Ernstson and Swyngedouw 2019.

49. See Roy (2014, p. 13), as well as Robinson and Roy (2015, p. 182) on "global urbanisms."

50. von Thünen 1826.

51. Césaire 2010 [1956].

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