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IMPLOSIONS / EXPLOSIONS

TOWARDS A STUDY OF PLANETARY URBANIZATION

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1 INTRODUCTION: URBAN THEORY WITHOUT AN OUTSIDE

Neil Brenner

The urban question has long been a flashpoint for intense debate among researchers concerned with the nature of cities and urbanization processes.¹ Despite profound differences of methodology, analytical focus and political orientation, the major twentieth century approaches to this question have taken an entity commonly labeled as *the city* (or some lexical variation thereof) as their primary unit of analysis and site of investigation.

This foundational epistemological focus was canonized in the 1925 mission-statement of urban sociology by Chicago School founders Ernest Burgess and Robert Park, laconically but confidently titled *The City*.² It subsequently evolved into a basically self-evident presupposition—so obvious that it did not require explanation or justification—across diverse traditions and terrains of urban research. Indeed, despite their significant epistemological, methodological and political differences from Chicago School urban sociology, the major strands of mid- to late twentieth century urban studies have likewise focused their analytical gaze primarily, if not exclusively, on “city-like” (nodal, relatively large, densely populated and self-enclosed) sociospatial units. This generalization applies to mainstream quantitative research on city-size distributions, central place systems and urban hierarchies; to the periodizations of capitalist urban development by radical political economists in the 1970s and 1980s; to the influential analyses of postfordist cities, global city formation and megacity expansion in the 1990s; and to more recent research forays on neoliberal cities, ordinary cities and postcolonial cities in the late 1990s and into the

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early 2000s. Whatever their specific methodological orientations, *explananda* and politico-theoretical agendas, each of these influential approaches to the urban question has either (a) documented the replication of city-like settlement types across larger territories; or (b) used a modifying term—mercantile, industrial, Fordist-Keynesian, post-Keynesian, postfordist, global, mega, neoliberal, ordinary, postcolonial and so forth—to demarcate its research terrain as a subset of a putatively more general sociospatial form, “the” city.³

Of course, there have been many terms on offer for labeling the city-like unit in question—metropolis, conurbation, city-region, metropolitan area, megalopolis, megapolitan zone, and so forth—and these appropriately reflect the changing boundaries, morphologies and scales of human settlement patterns.⁴ Concomitantly, across and within each of the aforementioned research traditions, intense debates have long raged regarding the origins, internal dynamics and consequences of city-building, and more generally, regarding the functions of cities in relation to broader political-economic, sociocultural and demographic transformations.⁵ But underneath the tumult of disagreement and the relentless series of paradigm shifts that have animated urban theory and research during the last century, a basic consensus has persisted: the urban *problematique* is thought to be embodied, at core, in *cities*—conceived as settlement types characterized by certain indicative features (such as largeness, density and social diversity) that make them qualitatively distinct from a *non-city* social world (suburban, rural and/or “natural”) located “beyond” or “outside” them.⁶ In effect, as Hillary Angelo and David Wachsmuth explain in their contribution to this volume, the epistemology of urban studies has been characterized by a deeply entrenched *methodological cityism* which entails “an analytical privileging, isolation and [...] naturalization of the city in studies of urban processes where the non-city may also be significant.”⁷

This book assembles a series of contributions to the urban question that push strongly against the grain of that epistemology. Through diverse modes of engagement (conceptual, methodological, historical, political-economic, representational) and analytical windows (social scientific, cartographic, literary and cinematic), its chapters articulate the elements of a radically different way of understanding the *problematique* of urban theory and research, and more generally, of conceptualizing the imprint and operability of urban processes on the planetary landscape. In so doing, we aim to advance a hitherto largely subterranean stream of urban research that has, since the mid-twentieth century, cast doubt upon established understandings of the urban as a bounded, nodal and relatively self-enclosed sociospatial condition in favor of more territorially differentiated, morphologically variable, multiscalar and processual conceptualizations.⁸ Building upon various concepts, methods and mappings derived from that work, especially Henri Lefebvre’s approach, this book aspires to supersede the urban/non-urban divide that has long anchored the epistemology of urban research, and on this basis, to develop a new vision of urban theory *without an outside*.

In so doing, the book's contributors preserve the analytical centrality of agglomeration to the *problématique* of urban theory, but interpret it as only one dimension and morphological expression of the capitalist form of urbanization. In this understanding, the development, intensification and worldwide expansion of capitalism produces a vast, variegated terrain of urban(ized) conditions that include yet progressively extend beyond the zones of agglomeration that have long monopolized the attention of urban researchers. As this erstwhile non-urban realm is increasingly subsumed within and operationalized by a world-encompassing—and, indeed, world-making—process of capitalist urbanization, the meaning of the urban must itself be fundamentally re-imagined both in theory and in practice.⁹



Why should the urban/non-urban distinction be transcended, and why now? Clearly, settlement space has long been differentiated by place names, and it seems intuitive to demarcate the terrain of the urban, both historically and today, with reference to the names of the world's great cities—London, New York, Shenzhen, Mumbai, Lagos and so forth. Even amidst the intense volatility associated with accelerated geoeconomic restructuring, such places clearly *do* still exist, and in fact, their size and strategic economic importance appear to be growing, not diminishing. But what, exactly, *are* these places, aside from names on a map that have been institutionalized by governments and branded as investment locations by growth coalitions? What distinguishes them qualitatively from other places within and beyond, say, the South East of England and Western Europe; the US Northeast and North America; the Pearl River Delta and East Asia; Maharashtra and South Asia; or southern Nigeria and West Africa? Do they contain some special quality that makes them unique—their size, perhaps, or their population density? Their infrastructural outlays? Their strategic centrality in global flows of capital and labor? Or, on the other hand, have the sociospatial relations of urbanism that were once apparently contained within these units now exploded haphazardly beyond them, via the ever thickening commodity chains, infrastructural circuits, migration streams and circulatory-logistical networks that today crisscross the planet? But, if this is the case, can any erstwhile city, whatever its size, still be said to have coherent boundaries? Have the everyday social relations, inter-firm networks, labor markets, built environments, infrastructural corridors and socio-environmental footprints associated with such densified clusters now been extended, thickened, superimposed and interwoven to forge what Jean Gottmann once vividly described as an “irregularly colloidal mixture of rural and suburban landscapes” on national, international, continental and even global scales?¹⁰ And, to the degree that all this is indeed occurring, in a world in which “the city is everywhere and in everything,” shouldn't the inherited understanding of the urban as a distinctive settlement type be abandoned, or at least be radically reconceptualized?¹¹

This was, of course, precisely the position advanced by Lefebvre over four decades ago, when he opened *La révolution urbaine* with the provocative hypothesis that “society has been

completely urbanized.”¹² Although he viewed complete urbanization as a virtual object—an emergent condition rather than an actualized reality—Lefebvre suggested that the broad outlines of a complete formation of urbanization were already coming into relief during the 1960s in Western Europe. They were evidenced, he argued, in the fragmentation and destruction of traditional European cities; in the formation of a large-scale territorial megalopolis stretching from England, Paris and the Ruhr region to Scandinavia; in the extension of logistical, commercial and tourist infrastructures deep into previously remote areas; in the construction of major industrial estates and large-scale housing ensembles in formerly peripheral locations in France, Spain and Italy; in the destruction of quasi-autonomous agrarian communities in formerly rural zones; and in wide-ranging processes of environmental degradation across the continent.¹³ When actualized on a planetary scale, Lefebvre suggested, such tendencies would entail a relentless, if fragmentary, interweaving of an urban fabric—a “net of uneven mesh”—across the entire world, including terrestrial surfaces, the oceans, the atmosphere and the subterranean, all of which would be ever more directly instrumentalized and operationalized to serve the voracious pursuit of capitalist industrial growth.¹⁴

In several striking formulations, Lefebvre characterizes the generalization of capitalist urbanization as a process of “implosion-explosion,” a phrase he introduced to illuminate the mutually recursive links between capitalist forms of agglomeration and broader transformations of territory, landscape and environment. In some of his initial formulations, Lefebvre uses the metaphor of implosion-explosion in an almost Mumfordesque manner, to characterize the destruction of European mercantile cities (the moment of implosion) and the subsequent growth of megalopolitan territorial formations to support industrialization (the moment of explosion).¹⁵ But Lefebvre subsequently expands his use of the implosion-explosion metaphor to describe some of the wide-ranging territorial transformations that have ensued at various spatial scales during the *longue durée* history of capitalist urbanization. As cities are extended outwards into their surrounding territories and are woven together via thickening long-distance logistics networks, these erstwhile non-city zones are more tightly integrated into large-scale spatial divisions of labor. With the intensification, acceleration and territorial expansion of capitalist forms of growth, precapitalist and mercantile cities and towns are either peripheralized or remade into strategic locations within heavily industrialized landscapes. Subsequently, a further round of sociospatial explosion occurs as urban practices, institutions, infrastructures and built environments are projected aggressively into and across the erstwhile non-urban realm, annihilating any transparent differentiation between city and countryside, and linking local and regional economies more directly to transnational flows of raw material, commodities, labor and capital. In this way, processes of concentration and dispersion, as well as new patterns of core-periphery polarization, are superimposed upon one another across places, territories and scales, creating an almost kaleidoscopic churning of sociospatial arrangements during successive cycles of capitalist development. The notion of implosion-explosion thus comes to describe the production and continual transformation of an industrialized urban fabric

in which centers of agglomeration and their operational landscapes are woven together in mutually transformative ways while being co-articulated into a worldwide capitalist system.¹⁶

In a provocative, widely discussed diagram presented in the opening chapter of *La révolution urbaine*, Lefebvre uses the notion of implosion-explosion to describe the broad constellation of historical-geographical transformations that would, he believed, herald the onset of complete urbanization on a world scale—specifically, “urban concentration, rural exodus, extension of the urban fabric, complete subordination of the agrarian to the urban” (see page 43). When this “critical point” is reached, Lefebvre suggests, the condition of complete urbanization will no longer be hypothetical—a mere “virtual object” whose tendencies are selectively manifested in particular territories, whether in Europe or elsewhere.¹⁷ It will, rather, have become a basic parameter for *planetary* social and environmental relations, imposing new constraints upon the use and transformation of the worldwide built environment, unleashing potentially catastrophic inequalities, conflicts and dangers, but also harboring new opportunities for the democratic appropriation and self-management of space at all scales. In the late 1980s, in one of his final texts, Lefebvre suggested that the critical point of complete urbanization had actually been crossed, and thus that a “planetarization of the urban” was now being realized in practice.¹⁸

The contributions to this book build upon and extend Lefebvre’s hypothesis and subsequent analysis. They suggest various ways in which Lefebvre’s virtual object of complete urbanization is today being actualized, albeit unevenly, on a worldwide scale, as well as in specific territories, regions and places; and they explore some of the wide-ranging intellectual, social, political and environmental implications of this state of affairs. As many chapters included here suggest, this newly consolidated, planetary formation of urbanization has blurred, even exploded, long-entrenched sociospatial borders—not only between city and countryside, urban and rural, core and periphery, metropole and colony, society and nature, but also between the urban, regional, national and global scales themselves—thereby creating new formations of a thickly urbanized landscape whose contours are extremely difficult, if not impossible, to theorize, much less to map, on the basis of inherited approaches to urban studies. The present volume assembles some conceptual, methodological, analytical and cartographic tools through which that challenge might be productively confronted. The notion of implosion-explosion is useful in this endeavor not because it offers a finished theory or a fully differentiated cartography of our emergent global-urban moment, but simply because it begins to demarcate the vast, unwieldy *problématique* that opens before us as the legacies of methodological cityism are questioned and tendentially superseded.

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In exploring this emergent agenda, our claim in this book is decidedly *not*, as some urbanists have occasionally proposed, that cities (or, more precisely, zones of agglomeration) are

dissolving into a placeless society of global flows, borderless connectivity or haphazard spatial dispersal.¹⁹ Nor do we suggest that population density, inter-firm clustering, agglomeration effects or infrastructural concentration—to name just a few of the conditions that are commonly associated with the phenomenon of cityness under modern capitalism—are no longer operationally significant features in contemporary economy and society. On the contrary, the contributors to this volume remain fundamentally concerned with agglomeration processes, their changing role in regimes of capital accumulation, and their variegated expressions in diverse morphological forms and spatial configurations—from large-scale urban regions, polycentric metropolitan territories and linear urban corridors to inter-urban networks and worldwide urban hierarchies. They simply insist, as Matthew Gandy succinctly proposes, that “cities are just a form of urbanization,” and thus that they must be understood as dynamically evolving sites, arenas and outcomes of broader processes of sociospatial and socio-ecological transformation.²⁰ David Harvey offers an equally concise formulation of this proposition with his suggestion that “the ‘thing’ we call a ‘city’ is the outcome of a ‘process’ that we call ‘urbanization’.”²¹

But how, precisely, to theorize this *process* of urbanization and its variegated geographies? In fact, this task poses considerable challenges because, even though the concept of urbanization may initially appear to connote the dynamic, processual qualities emphasized by Gandy and Harvey, it has actually long been thoroughly mired in the epistemological assumptions of methodological cityism. Along with other meta-concepts such as industrialization, modernization, democratization and rationalization, the concept of urbanization has a long history in the modern social and historical sciences, and has generally been used to invoke one of the putatively all-pervasive “large processes” of modern capitalist social formations.²² Yet, in most accounts, whether within urban studies, social theory or historical sociology, urbanization refers, *tout court*, to the process of *city* growth: it is circumscribed, by definition, to refer only to the growth of large, and perhaps dense or diverse, settlements, generally in conjunction with some of the other macro-trends of capitalist modernity.

Although its origins may be traced to various strands of nineteenth and early twentieth century social theory, such a conceptualization was paradigmatically embodied in American sociologist Kingsley Davis’ classic, mid-twentieth century definition of urbanization as the expansion of the city-based population relative to the total national population. Rather than defining cities in social, morphological or functional terms, Davis famously used numerical population thresholds—generally 20,000 or 100,000—to demarcate their specificity as settlement types.²³ Davis concisely summarized this strictly empirical understanding in the formula: $U = P_c / P_t$ (U = urbanization; P_c = population of cities; and P_t = total national population); and he subsequently devoted several decades of careful empirical research to its international application, eventually producing the first comprehensive worldwide survey of national urbanization levels.²⁴

As Christian Schmid and I argue in Ch. 21 below, Davis' mid-century definition is today firmly institutionalized in the data collection systems that are still used by the United Nations (UN) and other global organizations, and it is also still rigidly entrenched within major strands of contemporary social science, urban planning, social policy and public health.²⁵ Indeed, it is precisely this empiricist, city-centric conceptualization of urbanization that underpins the influential contemporary assertion that an “urban age” has recently dawned due to the putative shift of the majority of the world's population from the countryside to the city. Aside from its empirical blind-spots, which are considerable given the non-standardized definitions of settlement types that are intermixed within the UN's data tables, such a proposition is a deeply misleading basis for understanding the contemporary global urban condition. It presupposes a narrow, ahistorical and population-centric concept of the city that does not adequately grasp the extraordinary scale and diversity of agglomeration processes that are associated with contemporary forms of urban development around the world. Just as importantly, the urban age concept fails to illuminate the wide-ranging operations and impacts of urbanization processes beyond the large centers of agglomeration, including in zones of resource extraction, agro-industrial enclosure, logistics and communications infrastructure, tourism and waste disposal, which often traverse peripheral, remote and apparently “rural” or “natural” locations.²⁶

While such operational landscapes may not contain the population densities, settlement properties, social fabric and infrastructural equipment that are commonly associated with cities, they have long played strategically essential roles in supporting the latter, whether by supplying raw materials, energy, water, food or labor, or through logistics, communications or waste processing functions. More generally, as Marx recognized in his classic analysis of original accumulation (*ursprüngliche Akkumulation*) in volume 1 of *Capital*, the enclosure, commodification and ongoing reorganization of such landscapes has figured crucially throughout the history of capitalism in the dispossession, displacement and proletarianization of the very populations that so often cluster within large urban centers.²⁷ The capitalist form of agglomeration thus presupposes the enclosure and operationalization of large-scale territories located well beyond the city to support its most basic socioeconomic activities, metabolic cycles and growth imperatives.²⁸ Today, such landscapes are being comprehensively produced, engineered or redesigned through a surge of infrastructural investments, enclosures and large-scale territorial planning strategies intended to support the accelerated growth and expansion of agglomerations around the world. Their developmental rhythms are thus being linked ever more directly to those of the major urban centers via worldwide spatial divisions of labor; and their continuing commodification, enclosure and socio-ecological degradation is contributing to the forms of mass dispossession and displacement that are uncritically catalogued or even celebrated in contemporary urban age discourse under the rubric of “rural-to-urban” demographic change.²⁹ Consequently, if a global urban age is indeed currently dawning, this circumstance cannot be understood adequately with reference to the formation of global cities or large-scale mega-city regions, but requires systematic consideration of the tendential, if uneven,

operationalization of the entire planet—including terrestrial, subterranean, oceanic and atmospheric space—to serve an accelerating, intensifying process of urban industrial development.³⁰ Insofar as the dominant model of capitalist urbanization continues to be based upon the generalized extraction, production and consumption of fossil fuels, it is directly implicated in a form of global ecological plunder that has permanently altered the earth's climate while infiltrating the earth's soils, oceans, rivers and atmosphere with unprecedented levels of toxic waste.³¹

From this point of view, then, morphological or population-centric approaches are extremely misleading lenses into the emergent dynamics of global urbanization. This process cannot be understood adequately either with reference to intensified population growth within the world's largest cities, or simply as a replication of city-like settlement types across the earth's surface. Nor, on the other hand, can traditional notions of the hinterland or the rural adequately capture the processes of extended urbanization through which formerly marginalized or remote spaces are being enclosed, operationalized, designed and planned to support the continued agglomeration of capital, labor and infrastructure within the world's large cities and mega-city regions. Instead, a new understanding of urbanization is needed that explicitly theorizes the evolving, mutually recursive relations between agglomeration processes and their operational landscapes, including the forms of land-use intensification, logistical coordination, core-periphery polarization and sociopolitical struggle that accompany the latter at all spatial scales.

Through a variety of methodological strategies and substantive interventions, the contributions to this book offer useful intellectual tools for such an analysis. They replace city- and settlement-centric, population-based models of urbanization with an exploration of the dynamics of implosion-explosion under capitalism, as outlined in general terms above with reference to Lefebvre's provocative metaphor. In such a conceptualization, implosion and explosion are not separate temporal sequences or distinct morphological crystallizations, but represent “moments” in the dialectical sense of the term—mutually interdependent yet intensely conflictual dimensions of an historically constituted, discontinuously evolving totality. As such, processes of implosion-explosion also necessarily involve what Lefebvre aptly termed “the politics of space”—contestation over the political-economic hierarchies and power relations that are inscribed in, and in turn transform, sociospatial arrangements.³² The key elements of this theorization are summarized schematically in Figure 1.1 (see next page); they are elaborated at length, via diverse avenues of conceptualization, analysis, representation, speculation and critique, in the chapters that follow.

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This book does not provide a definitive statement of the agendas outlined above, but is intended to assemble intellectual resources for elaborating them. The first word of its subtitle, “*towards* a study of planetary urbanization,” is meant literally; such a study has

	Methodological cityism	Urban theory without an outside
Unit of analysis	Bounded: the city as a settlement type that is contrasted to other settlement types, usually within a national territory	Open, variegated, multiscalar: the urban as an unevenly developed yet worldwide condition and process of sociospatial transformation
Model of territorial organization	Typological, binary: territory is differentiated among distinct settlement types, with cities contrasted to specific non-city zones—suburbs, towns, villages, rural areas, the countryside and “natural” areas	Processual, dialectical: agglomerations (“cities”) relate dialectically to their (“non-city”) operational landscapes, which are in turn continually transformed through their roles in supporting agglomerations
Understanding of territorial development	Population-centric: growth of city populations relative to total (national) population size	Mediated through capitalism, state strategies and sociopolitical struggle: worldwide implosion/explosion of capitalist sociospatial organization, encompassing the evolving relations between agglomerations and their operational landscapes within a crisis-prone capitalist world economy
Model of <i>longue durée</i> historical-geographical change	Linear, universal: specific cities may grow or decline, but the phenomenon of cityness is increasingly universalized as a settlement type around the world	Discontinuous, uneven: sociospatial configurations (including both agglomerations and their operational landscapes) are creatively destroyed through the crisis-tendencies of capital (mediated through state institutions and sociopolitical struggles), contributing to successive rounds of territorial differentiation and redifferentiation at various spatial scales

1.1 Rethinking the urbanization question

yet to be conducted, but it may be productively informed through some of the concepts, methods, cartographies and political orientations assembled in this book. As Figure 1.2 indicates, the chapters included here fall into three broad categories.

Classic and background texts. This book is not intended to offer a survey either of work on urbanization in general or on the contemporary formation of this process. However, a number of key texts from earlier periods of research on these topics acquire renewed contemporary significance in the context of the wide-ranging intellectual agenda proposed here. Accordingly, several earlier texts have been included that introduce essential analytical tools for our work. The earliest among these is an excerpt from Henri Lefebvre’s *La révolution urbaine* (1970), but others range in publication date from the late 1980s to the mid-2000s. They include one of Lefebvre’s last publications—a short, rather gloomy essay for *Le Monde* (1989); as well as Terry McGee’s pioneering explosion of the urban-rural divide in relation to the *desakota* regions of Asia (1991); an early theorization of extended

Classic and background texts (1970 to 2007)	<ul style="list-style-type: none"> • Lefebvre, Ch. 2 (1970) • Harvey, Ch. 3 (1996) • Schmid, Ch. 4 (2006) • Meili, Ch. 7 (2006) • Monte-Mór, Ch. 8 (1994) • McGee, Ch. 9 (1991) • Soja and Kanai, Ch. 10 (2007) • Monte-Mór, Ch. 17 (2005) • Schmid, Ch. 18 (2006) • Schmid, Ch. 26 (2006) • Lefebvre, Ch. 34 (1989)
Recent texts (2011-2013)	<ul style="list-style-type: none"> • Gandy, Ch. 5 (2012) • Schmid, Ch. 6 (2012) • Brenner and Schmid, Ch. 11 (2011) • Merrifield, Ch. 12 (2013) • Brenner, Ch. 13 (2012) • Schmid, Ch. 14 (2012) • Soja, Ch. 19 (2011) • Brenner and Schmid, Ch. 21 (2013) • Gleeson, Ch. 22 (2013) • Wachsmuth, Ch. 23 (2013) • Angelo and Wachsmuth, Ch. 24 (2013) • Brenner and Katsikis, Ch. 27 (2013) • Madden, Ch. 30 (2012) • Merrifield, Ch. 31 (2011)
Newly commissioned texts	<ul style="list-style-type: none"> • Goonewardena, Ch. 15 • Sevilla-Buitrago, Ch. 16 • Kipfer, Ch. 20 • Merrifield, Ch. 25 • UTL-GSD, Ch. 28 • Katsikis, Ch. 29 • Ajl, Ch. 32 • Friedmann, Ch. 33

1.2 Overview of chapters—period of publication

urbanization by Brazilian planner Roberto Luis Monte-Mór with specific reference to the Amazon (1994) and spatial development in Brazil more generally (2005); a concise, forceful defense of a process-based theorization of urbanization by David Harvey (1996); several excerpts from the pathbreaking, multi-volume study of complete urbanization in Switzerland by two members of Studio Basel’s research team, Marcel Meili and Christian Schmid (2006); and Ed Soja and J. Miguel Kanai’s preliminary yet precise demarcation of the emergent worldwide urban fabric (2006). While these texts were produced prior to the consolidation of the research agenda sketched above, they offer some essential concepts and perspectives that may inform such an investigation.

Recent texts. The bulk of the book is composed of articles and essays on various aspects of planetary urbanization that have been produced during the last several years, mainly by members of my own research group, the Urban Theory Lab (which relocated from New York City to the Harvard GSD during this time), and through an ongoing collaboration

with Christian Schmid of the ETH-Zurich. Although not immediately connected either to the Urban Theory Lab or to Christian Schmid's research teams in Zurich and Singapore, our friends and colleagues Matthew Gandy, Brendan Gleeson and Andy Merrifield produced closely aligned interventions during this same period. Their chapters resonate powerfully with the work of our Lab and research network, while extending it in important, original directions. To date, Merrifield's *The Politics of the Encounter* is the only book-length study of planetary urbanization, but the proliferation of articles and essays on this topic during the last two or three years does suggest that a new *problematique*—a set of interconnected explorations and inquiries around a common set of questions—is emerging and gaining some intellectual traction and momentum.³³

Newly commissioned texts. A final cluster of texts was commissioned specifically for this book, either through projects emerging directly from within the Urban Theory Lab or through dialogues and exchanges with colleagues based elsewhere. These texts broach essential topics that have only partially been addressed in our work to date—including, among others, the historical geographies of enclosure and urbanization (Sevilla-Buitrago, Goonewardena); urbanization, colonization and everyday life (Kipfer, Goonewardena); urbanization and the agrarian question (Sevilla-Buitrago, Aji); the critique of technoscientific approaches to “world management” (Katsikis); and the politics of spatial organization, urban and otherwise (Kipfer, Goonewardena, Friedmann). Other newly commissioned texts complement themes covered in several sections of the book—these include a chapter by Andy Merrifield on the future of urban studies; and an overview of the problem of visualizing worldwide urbanization by Urban Theory Lab researchers. Taken together, these newly produced chapters reinforce the agendas that have been developed through the Urban Theory Lab's work since 2011, while opening up a range of questions—methodological, historical, contextual, representational and (geo)political—that urgently require sustained attention and elaboration in future work on this *problematique*.

Following this introductory chapter, the book is divided into seven sections followed by a brief Coda. Figure 1.3 surveys the intellectual terrain of the book as a whole by summarizing the key questions around which each of the seven sections, and the Coda, are focused.

Some readers may wish to navigate the book sequentially. Such an approach should prove highly productive insofar as it will offer multiple perspectives on the issues explored within each section, while permitting readers to gain familiarity with the key concepts, methods and arguments upon which successive sections of the book are grounded. However, other approaches to appropriating the book's arguments are also certainly viable, and may open up some illuminating perspectives on the issues at stake. For example, several major threads of argumentation crosscut multiple sections of the book—for instance, on the need to develop new concepts and representations of urbanization processes; on the investigation of the historical geographies of urbanization; on the critique of urban knowledges and

<p>One Foundations— the urbanization question</p>	<ul style="list-style-type: none"> • What is urbanization? How are urbanization processes inscribed in built environments, landscapes and territories, beyond the boundaries of cities? What would a complete or generalized formation of urbanization entail, in experiential, social, spatial and environmental terms?
<p>Two Complete urbanization— Experience, site, process</p>	<ul style="list-style-type: none"> • Can the spatial boundaries of cities be coherently delineated—whether in theory, analysis or experience? Is a new formation of complete urbanization being consolidated in specific regions and territories? If so, what are its major manifestations—whether in built environments, spatial configurations or infrastructural arrangements, in political discourses, or in everyday life?
<p>Three Planetary urbanization— openings</p>	<ul style="list-style-type: none"> • Is a planetary formation of complete urbanization being consolidated in the early twenty-first century? If so, what are its major experiential, social, spatial and environmental expressions, and what are its sociopolitical implications? What categories of analysis and methods of representation are needed to decipher such trends and transformations?
<p>Four Historical geographies of urbanization</p>	<ul style="list-style-type: none"> • If urbanization includes yet transcends the process of city building, how can the historical geographies of these intertwined processes be conceptualized in relation to ongoing transformations of place, landscape, territory and environment at various spatial scales?
<p>Five Urban studies and urban ideologies</p>	<ul style="list-style-type: none"> • What are the limitations and blind-spots of inherited and contemporary approaches to the urban question in relation to emergent worldwide urbanization patterns? What is the role of ideological (mis)representations of the city and the urban in historical and contemporary strategies to shape sociospatial and environmental transformations?
<p>Six Visualizations— Ideologies and experiments</p>	<ul style="list-style-type: none"> • How to develop appropriately differentiated spatial representations of historical and contemporary urbanization processes? What taxonomies are most effective for mapping a world of generalized urbanization, massive uneven spatial development and continued territorial differentiation? What are the limits and possibilities of inherited mapping strategies and new geospatial data sources for developing a critical cartography of planetary urbanization?
<p>Seven Political strategies, struggles and horizons</p>	<ul style="list-style-type: none"> • How are worldwide urbanization processes, past and present, mediated through political and institutional strategies? What are their operational elements and targets? What are their implications for spatial organization, resource distribution, power relations and political life? What, if any, alternatives to contemporary urbanization patterns have been envisioned, and/or pursued by theorists, designers, policy makers, citizens, inhabitants and activists?
<p>Coda</p>	<ul style="list-style-type: none"> • If the traditional city is dissolving, and urbanization is being generalized across the planet, can new forms of citizenship be constructed that empower people collectively to appropriate, transform and reshape the common space of the world?

1.3 Key questions explored in each section of the book

ideologies; on the role of state strategies in mediating urbanization processes at various spatial scales; on the deployment of spatial representations to serve specific strategies of urbanization; and on the question of alternatives to contemporary urbanization patterns. These, and no doubt others, may be accessed quite productively as readers construct their own pathways through the many layers of analysis, experimentation, speculation and debate that are intermeshed across chapters and sections in this volume. A sequential approach to the book's contents may thus be productively complemented through more topical reading strategies that reflect specific research interests, concerns and agendas. The book's organizational structure is intended less to enclose the material within pre-given analytical boxes, than simply as a pragmatic framing device to enhance the accessibility of an otherwise complex, multifaceted and at times quite challenging intellectual terrain.

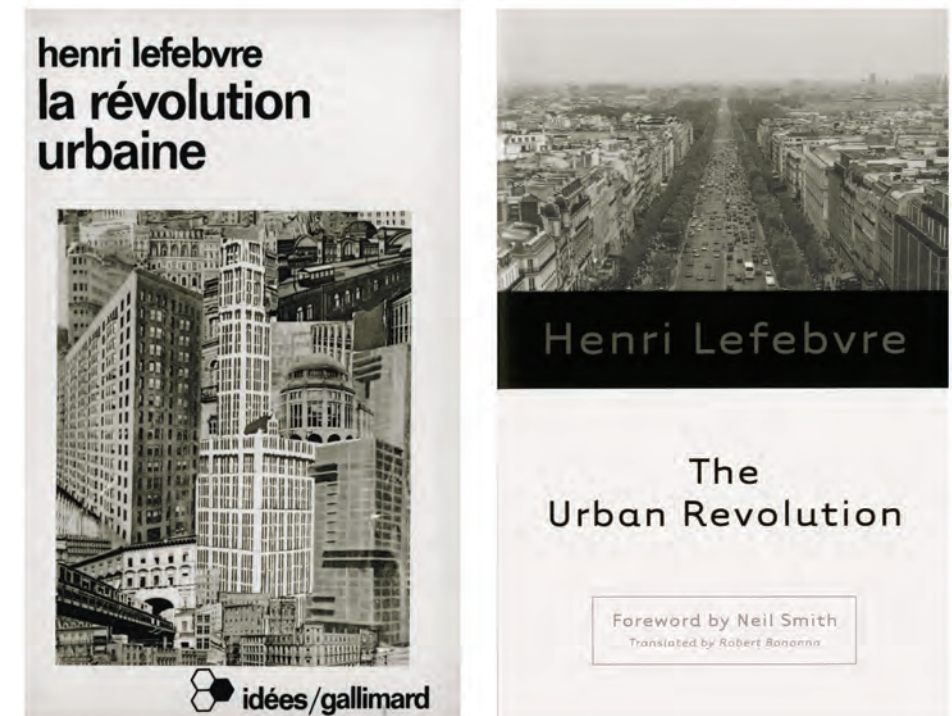
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The images used on the book's cover and in the section introductions were produced by Garth Lenz, whose photojournalistic work has dramatically documented some of the most horrific industrial scars on the earth's landscape, especially in the Tar Sands of northern Alberta, Canada as well as in other zones of intensive resource extraction, that have been induced through our fossil fuel-based formation of worldwide urbanization.³⁴ In recent years, photographic work on colossal landscapes of industrialized resource extraction and environmental destruction—particularly in connection to the large-scale infrastructures required for the production of petrochemicals—has generated considerable attention both in the public sphere and among environmentalists, conservationists, landscape architects and geographers. In many of the most widely circulated images of such landscapes, the spectre of worldwide ecological destruction is depicted with such richly aestheticized abstraction that some commentators have described this genre using phrases such as the “toxic sublime” or the “apocalyptic sublime.”³⁵ Lenz's interventions are clearly connected to that genre—there is a surreal, if deeply unsettling, beauty in many of his images of the shockingly degraded landscapes of the Tar Sands. However, his work is quite explicitly linked to a political concern to use his powerful photographic vocabulary to communicate a cautionary message regarding “the true cost of oil” to the public both in Canada and beyond.³⁶ Lenz's images thus offer a fitting, if extremely grim, provocation for the arguments and perspectives being forged in the present volume: they illustrate one way of visualizing the socially and ecologically disastrous operational landscapes of urbanization—Lefebvre might have described them as a form of “terricide”—that are being forged at a truly colossal scale to support and reproduce urban life under early twenty-first century capitalism.³⁷

While it was, of course, Henri Lefebvre who forecast the situation of complete urbanization that is today apparently being actualized on a planetary scale, the iconography used in the cover design of his classic text, *The Urban Revolution*—both in its original 1970 version and in its 2003 English translation—is strikingly conventional (Figure 1.4).

In the French version, a classic image of urban density is adopted—a collage of large, iconic buildings pierced by an elevated subway train. In the more recent English translation, a similar, if more readily recognizable, iconography is chosen: one of Haussmann's great Parisian boulevards, forming a knife-like cut through the fabric of a dense urban landscape that stretches endlessly into the horizon. In stark contrast, Lenz's aerial photograph of the Tar Sands on this book's cover takes us far away from the large, dense, vertical landscapes of cityness, into a zone in which the earth's surface has been layered with a viscous sludge, traversed by muddy roads twisting around ponds filled with huge accumulations of toxic waste. As Andy Merrifield proposes in several of his contributions to this book, the Haussmannization of the past, which evicted city dwellers from the center to create a built environment for urbanizing capital, has now been ratcheted-up into a worldwide form of neo-Haussmannization. Perhaps Lenz's image of the Tar Sands provides as fitting an iconography for this emergent planetary condition as the image of Haussmann's geometrical boulevard did for an earlier, city-centric formation of urban expansion. The evictions, enclosures and dispossessions continue, but now on the scale of the entire planet, well beyond the inherited built environments of earlier civilizations, leading to unprecedented social devastation and environmental destruction:

Baron Haussmann tore into central Paris, into its old neighborhoods and poor populations, dispatching the latter to the periphery while speculating on the



1.4 Iconography of the urban revolution?

center; the built urban form became simultaneously a property machine and a means to divide and rule; today, neo-Haussmannization, in a similar process that integrates financial, corporate and state interests, tears into the globe, sequesters land through forcible slum clearance and eminent domain, valorizing it while banishing former residents to the global hinterlands of post-industrial malaise.³⁸

It seems as urgent as ever, under these conditions, to develop theories, analyses and cartographies that situate such operational landscapes—their land-use systems; their labor regimes and property relations; their forms of governance; their ecological impacts; and their rapidly changing social fabrics—quite centrally within our understanding of the contemporary urban condition. This volume is intended to advance that project in the hope that a new understanding of urbanization may prove useful to ongoing struggles—*against* neo-Haussmannization, planetary enclosure, market fundamentalism and global ecological plunder; and *for* a new model of urbanization oriented towards the collective reappropriation and democratic self-management of “planetary space as the work of the human species.”³⁹

Notes

- For exemplary overviews of the main lines of debate in twentieth century urban theory, see Peter Saunders, *Social Theory and the Urban Question*. Second Edition (London: Routledge, 1986); and Mark Gottdiener, *The Social Production of Urban Space* (Austin: University of Texas Press, 1985).
- Robert Park and Ernest Burgess eds., *The City* (Chicago: University of Chicago Press, 1967 [1925]). See also Neil Brenner and Nikos Katsikis, “Is the Mediterranean urban?,” this book, Ch. 27, Figure 27.1, page 429.
- Building heavily upon Walter Christaller’s central place theory, the quantitative approaches to urban systems of the mid-twentieth century assembled and analyzed diverse indicators on a large number of cities. However, despite its use of “large-N” research designs, this work was still premised upon the same overarching concern with cities as (qualitatively specific, yet increasingly generalized) settlement types that had characterized the earlier work of Burgess, Park and their Chicago School colleagues. For a detailed overview of such quantitative approaches, see Brian J. L. Berry and Frank Horton eds., *Geographic Perspectives on Urban Systems* (Englewood Cliffs: Prentice Hall, 1970). Although periodizations of capitalist urban development within the tradition of radical urban studies productively emphasized the specifically capitalist form of urbanization and the larger spatial divisions of labor in which capitalist cities are embedded, they were still generally grounded upon a generic model of a single city whose morphology was considered to be paradigmatic for the phase of urbanization under investigation. See, for example, the classic distinctions between city-types (mercantile, industrial, Fordist-Keynesian / corporate-monopoly, post-Keynesian) that were developed by David Gordon, “Capitalist Development and the History of American Cities,” *Marxism and the Metropolis*, eds. William Tabb and Larry Sawyers (New York: Oxford University Press, 1978) 25-63; and David Harvey, “The Urbanization of Capital,” *The Urban Experience* (Baltimore: Johns Hopkins University Press, 1989) 17-58. A similar analytical emphasis on particular types of city—global, mega, postfordist, neoliberal, ordinary, postcolonial and so forth—underpins most major strands of contemporary critical urban studies. For overviews of the latter approaches and associated debates see, among other works, Edward Soja, *Postmetropolis: Critical Studies of Cities and Regions* (Cambridge: Blackwell, 2000); Neil Brenner and Roger Keil, eds., *The Global Cities Reader* (New York: Routledge, 2006); and Gary Bridge and Sophie Watson, eds., *The New Blackwell Companion to the City* (Cambridge: Blackwell, 2011).
- For a useful overview of this terminological proliferation in recent years, see Peter J. Taylor and Robert E. Lang, “The Shock of the New: 100 Concepts Describing Recent Urban Change,” *Environment and Planning A* 36 (2004) 951–58.
- See Saunders, *Social Theory and the Urban Question*; and Gottdiener, *Social Production of Urban Space*.
- The triad of size, density and heterogeneity was, of course, essential to the classic definition of urbanism proposed by Chicago School sociologist Louis Wirth in 1937. See Wirth, “Urbanism as a Way of Life,” *Classic Essays on the Culture of Cities*, ed. Richard Sennett (Englewood Cliffs: Prentice Hall, 1969 [1937]) 143-164. Importantly, however, Wirth’s famous triad was not intended to delineate the specificity of cities as settlement types. His goal, rather, was to explain the occurrence of urbanism, an ensemble of social behaviors, interactions and routines that, he predicted, would tend to arise within places containing large, densely settled and socially diverse populations. In fact, from the essay’s opening paragraph forwards, Wirth expressed considerable skepticism regarding attempts to define the city based on purely empirical criteria (see Neil Brenner and Christian Schmid, “The ‘Urban Age’ in Question,” this book, Ch. 21). It is ironic, therefore, that Wirth’s theory is today so frequently invoked to exemplify precisely the type of empiricist definition of the city that he had so forcefully rejected. Although Wirth’s arguments on urbanism have been largely assimilated into the generic, typological understanding of cityness that prevails across the field of urban studies, they actually contain fruitful insights for the development of a more spatially variegated approach. For further discussion, see Neil Brenner, “Louis Wirth’s Radiant Urbanism: a Contribution to the Investigation of World Urbanization,” Working Paper (Urban Theory Lab, Graduate School of Design, Harvard University, 2013).
- Hillary Angelo and David Wachsmuth, “Urbanizing Urban Political Ecology: a Critique of Methodological Cityism,” this book, Ch.

24, page 377.

- For a critical evaluation of several such approaches, see Nikos Katsikis, *From Hinterland to Hinterworld: Territorial Organization Beyond Agglomeration* (Doctoral Dissertation, Doctor in Design Studies Program (DDesS), Graduate School of Design, Harvard University) in progress. Although such approaches have been elaborated in relation to an extremely broad range of substantive themes and concerns, they have been advanced with particular force by, among other authors, Jean Gottmann and Constantinos Doxiadis in the 1960s, Henri Lefebvre in the 1970s, John Friedmann in the 1970s and subsequently, Terry McGee in the 1980s and subsequently, William Cronon in the 1990s, and Matthew Gandy, Maria Kaika and Erik Swyngedouw in the 2000s. See, for example, Jean Gottmann, *Megalopolis: the Urbanized Northeastern Seaboard of the United States* (Cambridge: MIT Press, 1961); Constantinos Doxiadis, *Ekistics: An Introduction to the Science of Human Settlements* (New York: Oxford University Press, 1968); Henri Lefebvre, “The Right to the City,” *Writings on Cities*, Eleonore Kofman and Elizabeth Lebas eds. and trans. (Cambridge: Blackwell, 1996 [1968]) 63-181; Henri Lefebvre, *The Urban Revolution*, trans. Robert Bononno (Minneapolis: University of Minnesota Press, 2003 [1970]); John Friedmann and Clyde Weaver, *Territory and Function* (Berkeley and Los Angeles: University of California Press, 1979); Terry G. McGee, “The Emergence of Desakota Regions in Asia: Expanding a Hypothesis,” this book, Ch. 9 (originally published in 1991); William Cronon, *Nature’s Metropolis: Chicago and the Great West* (New York: Norton, 1991); Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (Cambridge: MIT Press, 2005). Maria Kaika, *City of Flows* (New York: Routledge, 2005); and Erik Swyngedouw, “Metabolic Urbanization: the Making of Cyborg Cities,” *In the Nature of Cities*, eds. Nik Heynen, Maria Kaika and Erik Swyngedouw (New York: Routledge, 2006) 21-40. There are, obviously, major methodological, conceptual and substantive differences among these works—but they share a systematic concern to supersede city-centric understandings of the urban in favor of territorially variegated and/or metabolic visions of the urban condition. While the influence of Lefebvre’s work is omnipresent in the present volume, several chapters critically interrogate the work of other authors who have made major contributions to the development of a territorially variegated or metabolic approach to urban theory. On the work of Kaika, Gandy and Swyngedouw. see Angelo and Wachsmuth, “Urbanizing Urban Political Ecology: a Critique of Methodological Cityism,” Ch. 24. On Doxiadis, see Nikos Katsikis, “Two Approaches to ‘World Management’: Doxiadis and Fuller,” this book, Ch. 29.
- On urbanization as a world-making process, see David J. Madden, “City Becoming World: Nancy, Lefebvre, and the Global-urban Imagination,” this book, Ch. 30.
- Gottmann, *Megalopolis*, 5.
- Ash Amin and Nigel Thrift, *Cities: Reimagining the Urban* (London: Polity, 2002) 1.
- Henri Lefebvre, “From the City to Urban Society,” this book, Ch. 2, page 36.
- See Henri Lefebvre, “The Right to the City,” 69-72; Lefebvre, “From the City to Urban Society,” this book, Ch. 2, page 37-38; and Henri Lefebvre, “Reflections on the Politics of Space” and “The Worldwide Experience,” *State, Space, World: Selected Essays*, eds. Neil Brenner and Stuart Elden, trans. Gerald Moore, Neil Brenner and Stuart Elden (Minneapolis: University of Minnesota, 2009) 190, 278.
- Henri Lefebvre, “The Right to the City,” 71; Lefebvre, “From the City to Urban Society,” this book, Ch. 2, page 37-38.
- See Lewis Mumford, *The City in History* (New York: Harcourt, Brace and World, 1961).
- On this reading, Lefebvre’s notion of implosion-explosion contains important parallels with David Harvey’s account of the contradiction between fixity and motion in the circulation of capital. On the latter, see David Harvey, “The Geopolitics of Capitalism,” *Social Relations and Spatial Structures*, eds. Derek Gregory and John Urry (London: Macmillan, 1985) 128-63. For further discussion see Neil Brenner, “Between Fixity and Motion: Accumulation, Territorial Organization and the Historical Geography of Spatial Scales,” *Environment and Planning D: Society and Space* 16, 5 (1998) 459-81.
- Lefebvre, “From the City to Urban Society,” this book, Ch. 2, pages 36, 43.
- Henri Lefebvre, “Dissolving city, Planetary Metamorphosis,” this book, Ch. 35, page 569.
- The *locus classicus* of such arguments is Melvin Webber, “The Post-city Age,” *Daedalus* 94, 4 (1968) 1091-110. For a critical review of more recent versions, see Stephen Graham, “The End of Geography or the Explosion of Place: Conceptualizing Space, Place and Information Technology,” *Progress in Human Geography* 22, 2 (1998) 165-85.
- Matthew Gandy, “Where Does the City End?,” this book, Ch. 5, page 86.
- David Harvey, “Cities or Urbanization?,” this book, Ch. 3, page 61.
- On such “big structures” and “large processes,” and the history of attempts to understand them in the social and historical sciences, see Charles Tilly, *Big Structures, Large Processes, Huge Comparisons* (New York: Russell Sage Foundation, 1984).
- Kingsley Davis, “The Origins and Growth of Urbanization in the World,” *American Journal of Sociology* 60, 5 (1955) 429-37; Kingsley Davis and Hilda Hertz Golden, “Urbanization and the Development of Pre-industrial Areas,” *Economic Development and Cultural Change* 3, 1 (1954) 6-26. For further discussion and critique of Kingsley Davis’ approach to urbanization see Brenner and Schmid, “The ‘urban age’ in question,” this book, Ch. 21.
- Davis and Hertz Golden, “Urbanization and the Development of Pre-industrial Areas,” 7; Kingsley Davis, *World Urbanization: 1950–1970, Volume II: Analysis of Trends, Relationships and Development*, Population Series No. 9 (Berkeley: Institute of International Studies, University of California, 1972); Davis, *World Urbanization: 1950–1970, Volume I: Basic Data for Cities, Countries, and Regions*, Population Monograph Series No. 4 (Berkeley: Institute of International Studies, University of California, 1969). For discussion see also Brenner and Schmid, “The ‘urban age’ in question,” this book, Ch. 21.
- See Brenner and Schmid, “The ‘Urban Age’ in Question,” this book, Ch. 21.
- Ibid. The urbanization of the earth’s most “remote” places is currently the focus of a collaborative research project in the Urban Theory Lab-GSD on “Extreme Territories of Urbanization.” Among other issues, our research team is investigating historical and contemporary patterns of urbanization in the Arctic, the Amazon, the Gobi steppe, the Himalayas and the Sahara desert, as well as in the Pacific Ocean and in the earth’s atmosphere.
- See Álvaro Sevilla-Buitrago, “*Urbs in Rure*: Historical Enclosure and the Extended Urbanization of the Countryside,” this book, Ch. 16; and Max Ajl, “The Hypertrophic City Versus the Planet of Fields,” this book, Ch. 32.
- This line of argumentation is developed in an important strand of the urban political ecology literature, especially by authors such as Matthew Gandy, Maria Kaika and Erik Swyngedouw, for whom a Marxian notion of metabolism serves as a key analytical lens for investigating the capitalist form of urbanization (see the works cited in Note 8 above). For critical discussion and evaluation, see Hillary Angelo and David Wachsmuth, “Urbanizing Urban Political Ecology,” this book, Ch. 24.
- This latter point is argued forcefully by Ajl, “The Hypertrophic City,” this book, Ch. 32. For a parallel account of such operational landscapes of urbanization, see also Timothy W. Luke, “Global Cities Versus ‘Global Cities’: Rethinking Contemporary Urbanism as Public Ecology,” *Studies in Political Economy* 70 (2003) 11-33.

- 30 This is one of the core hypotheses currently being explored in the Urban Theory Lab-GSD in our work on “Extreme Territories of Urbanization,” and it also lies at the heart of my ongoing collaboration with Christian Schmid on the historical and contemporary geographies of extended urbanization.
- 31 See Aji, “The Hypertrophic City”; as well as Luke, “Global Cities Versus ‘Global Cities.’”
- 32 Lefebvre, “Reflections on the Politics of Space,” cited above.
- 33 See Andy Merrifield, *The Politics of the Encounter: Urban Theory and Protest under Planetary Urbanization* (Athens: University of Georgia Press, 2013). At recent meetings of the Association of American Geographers (Los Angeles, 2013) and the Research Committee on Urban and Regional Development (RC21) of the International Sociological Association (Berlin, 2013), planetary urbanization was described on several panels as a new “paradigm” for research in urban studies. As I hope the above discussion indicates, I think such labels are extremely premature; we have only just begun to clarify our core questions and to introduce concepts and methodological strategies for confronting them. This book is simply an effort to consolidate and synthesize some of the major intellectual resources that have been produced thus far in relation to this emergent *problematique*.
- 34 For further examples of Lenz’s work, see <http://www.garthlenz.com>.
- 35 For a useful overview of such work, with specific reference to the photography of Edward Burtynsky, see Merle Patchett and Andriko Lozowy, “Reframing the Canadian Oil Sands,” *Imaginations: Journal of Cross-Cultural Image Studies* 3, 2 (2012) 140-69. Along with the work of Burtynsky, another striking example of this genre is David Maisel, *Black Maps: American Landscape and the Apocalyptic Sublime* (Göttingen: Steidl, 2013).
- 36 Lenz makes this political agenda quite explicit in his TED talk, “The True Cost of Oil”: http://www.ted.com/talks/garth_lenz_images_of_beauty_and_devastation.html.
- 37 On Lefebvre’s notion of terricide, see Stuart Elden, “Terricide: Lefebvre, Geopolitics and the Killing of the Earth,” Department of Politics, University of Warwick, unpublished manuscript, 2013.
- 38 See Andy Merrifield, “The Right to the City and Beyond: Notes Towards a Lefebvrian Reconceptualization,” this book, Ch. 31, page 526.
- 39 Henri Lefebvre, “The Worldwide and The Planetary,” in *State, Space, World: Selected Essays*. Neil Brenner and Stuart Elden eds. (Minneapolis: University of Minnesota Press, 2009) 206.

An aerial photograph of a massive construction site, likely a highway interchange or a large-scale urban infrastructure project. The image is dominated by a complex network of dirt roads, embankments, and earthworks. The terrain is a mix of dark brown earth and lighter, sandy areas. Several large pieces of construction machinery, including trucks and cranes, are visible on the site. The overall scene conveys a sense of large-scale engineering and urban development.

**"I'LL BEGIN WITH THE FOLLOWING HYPOTHESIS:
SOCIETY HAS BEEN COMPLETELY URBANIZED."**

— HENRI LEFEBVRE, *LA RÉVOLUTION URBAINE* (1970)

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