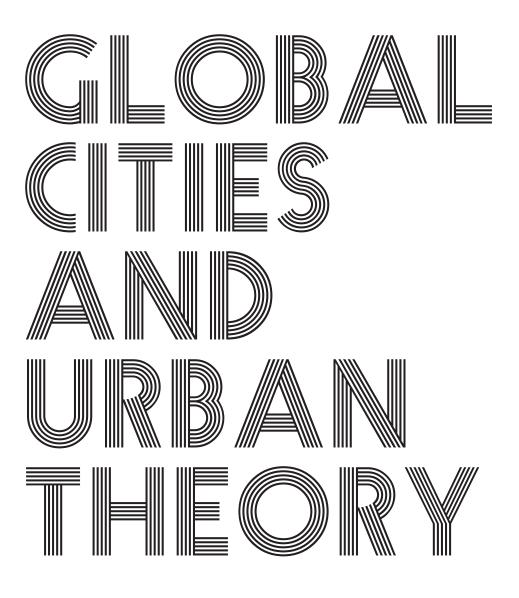


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'As Donald McNeill notes early in this book, scholarship on global cities "has been wide-spread and varied". McNeill weaves paths through theory and cities via architects, airports, factories, hotels, cathedrals, taxis, ports and myriad other sites of money, movement, power and marginality. It is a journey worth taking – and McNeill proves a splendid guide.'

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'Donald McNeill's book brings exceptional clarity to the core concerns of contemporary urban theory. Using a series of fascinating case studies and drawing extensively on politico-economic and actor network theories, the text demonstrates how cities are constitutive of, and constituted by, intersecting global process. In doing so, McNeill pushes forward the boundaries of critical urban studies by offering a systematic and crystal clear urban epistemology. With urban theory now at a turning point, this text should set the contours of debate as the emerging twenty-first century city is understood and theorized.'

Mark Davidson, Associate Professor of Geography, Clark University

'Donald McNeill has written a creative, innovative and authoritative analysis of the contemporary global city. It provides an impressive critical understanding of what we call the global and the city by focusing on the key material objects and social processes involved in constituting the relations between them. *Global Cities* provides an analysis of the key engineered sites of the cathedral of St. Peters, the airport and hotel, air conditioning and smart cities – amongst others – helping us to understand why some cities have been more influential than others in shaping global practices.'

Professor Simon Marvin, Director of the Urban Institute, University of Sheffield

'This book asks fundamental questions for urban research. What is a city? In what sense is a city "global"? McNeill examines key forms of cultural, economic, and political power and practice through which cities are composed as material concentrations, from religion and logistics to air-conditioning systems and smart cities. The result, in a discussion that ranges from Rome and Paris to Dubai and Sydney, is a powerful and innovative account of why and how particular spaces, practices and forms in the city curate globality.'

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'We may indeed have arrived at an "urban age" but there is precious little critical insight about this important human development. Global Cities and Urban Theory is therefore a very important arrival and should be widely read and discussed. The book distills and advances Donald McNeill's considerable ground breaking analyses of the global urban system, especially of the corporate and professional elites that seek to shape, indeed control, their destiny. McNeill deploys a highly original and timely critique to challenge the assumptions and assertions of urban power.'

Brendan Gleeson, Director of The University of Melbourne Sustainable Society Institute

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INTRODUCTION

BRIGHT LIGHTS, GLOBAL CITIES

The global city has been with us for some time now. At some point in the 1990s, it became clear that the imagined geography of the nation-state was being challenged by the likes of New York, Tokyo and London, that cities were making impacts on the world disproportionate to their territorial footprints and that the apparently inexorable suburbanization of economic activity was faltering. More recently, Asia Pacific cities such as Shanghai, Singapore and Sydney began to be mentioned in a similar vein as they grew rapidly in both stature and size. The symbols and signifiers of these cities were often presented in the media with both bravado and disdain: scurrying crowds of suited bankers, gleaming office towers, luxury brands, extravagant bonuses.

Many working to promote this image were far from disinterested. It has been increasingly obvious that consultants seeking global brand recognition see cities as a universal field of understanding. And so, the long-established Brookings Institution partners with the investment bank JP Morgan to develop global cities benchmarking; the management consultancy Accenture produces its Global Cities Strategy; the architecture and engineering firm Aecom launches its own Global Cities Institute; the giant information technology firm IBM promotes smart cities strategies which seek a universal systems-based solution for urban issues. Then there are the seemingly endless lists of city rankings, often promoted by media brands: the magazine *Monocle* produces its own quality of life urban rankings, *The Economist* orders cities according to ease of doing business. The list could go on, but the point should be clear: even speaking about global cities is an industry in its own right. And, above all, there is a sense that cities are always involved in practices of comparison, self-assessment and promotion for reasons that are sometimes very practical, and sometimes highly nebulous.

The response within scholarship has been widespread and varied. Globalization as a theory has been gathering in significance across the social sciences and humanities since the 1970s (James and Stenger 2014). Saskia Sassen's *The Global City: New York, London, Tokyo* (1991) brought this to the study of cities, arguing that the mere possession of corporate headquarters was not enough for cities to 'command and control' the increasingly financialized world economy of the 1980s. Rather, it was the co-presence or agglomeration of interacting producer services firms that gave cities their ability to influence global flows. From the UK, a cluster of scholars working within Loughborough University generated both significant theoretical framings of a world cities network (for example, Beaverstock et al. 2000; Taylor 2004), as well as

hosting the the Globalization and World Cities (GaWC) website which gathered a diverse range of working papers and reports from scholars worldwide. The landmark Global Cities Reader (Brenner and Keil 2006) runs to 50 extracts from a wide range of perspectives including fields of representation, cultural identity, and the nature of the concept as a sociological and geographical problematic. The field continues to be expanded and developed, both in terms of an explicit exploration of global cities as a concept (for example, Acuto and Steele 2013; Bassens and van Meeteren 2015), but also through ongoing debates about the nature of 'city' and 'urban' as explanatory concepts (for example, Robinson 2006; Brenner and Schmid 2015; Davidson and Iveson 2015a, 2015b).

My focus here is on exploring a set of quite diverse literatures which together explain, or call into question, what, exactly, could be called global, what constitutes a city, and what objects and practices are involved in putting the two together. A number of theorists have worked to provide contrasting entry points to the world cities and global cities literatures: Richard Smith (2003a, 2003b), who provided some early, radically post-structural set of analyses to the field; Jenny Robinson (2002, 2005, 2006, 2011, 2013), whose 'ordinary cities' motif sees the global ascription as being part of a categorizing impulse rooted in Western modernity; and anthropologists who explore the nature of local knowledge and contingency (e.g. Roy and Ong 2011). My purpose in the book is to work across these different literatures in a dialogue with my own empirical observations over the years (e.g. McNeill 2003, 2009a, 2010, 2014, 2015a, 2015b). I have also like many been influenced by the work of actor-network theorists, and especially Bruno Latour, whose 'flat' ontology of networks is well known and aggressive in its opposition to scalar analysis; as one commentator summarized, 'the actor does not pre-exist the network but arises as a product of it ... the actor [is] a relational effect ... it does not take actors' capacities as pre-given black boxes but problematizes the very process and precariousness of assembling them' (Müller 2015: 72).

Throughout, I have focused on a series of objects or sites that serve to *concentrate* the city. Their material density means that a small number of sites have a disproportionate effect on the surrounding urban territory and have powerful, long-lasting, durable impact on their relations with other places, objects and peoples. Through a wide range of urbanized practices such as sacralization, ordering, governmentality, indexicality, hospitality, air conditioning and prediction, these cities are being both composed and acted upon in a material way. However, just listing and describing these practices, devices and sites is not sufficient in itself, and the book works with several standpoints of origin: the importance of cultural and political economies of cities; the significance of the material density of global cities, and their concentration of devices; and the nature of how people and objects, the socio-material, act together to produce these spaces.

Certainly, following materiality through to its logical conclusion could be as exhausting as it is exhaustive. So in these chapters, I follow the materiality of key techniques in the production and programming of big city space. By production,

I am alluding to Lefebvre's broad-based discussion of Marxian forms of space development, with its underpinnings of land value, architectural space shaping, modes of maintenance, leasing and redevelopment. By programming, I refer more specifically to the ways in which space is organized for analysis in various ways:

The notion of programmes, or the realm of the programmatic, refers to all those designs put forward in a wide range of more or less formal documents by those who seek to configure specific locales and relations in ways thought desirable. Philosophers, political economists, philanthropists, government reports, committees of enquiry and so on all seek to re-present the real as something programmable, susceptible to diagnosis, prescription, improvement, and even cure. (Mennicken and Miller 2012: 17)

To do this, each of the chapters makes reference to a range of sites within 'big cities' to form a stage where a set of tales might be set forth that can build to an urban theory of global cities. They include Rome, Paris, Hong Kong, London, Mumbai, San Francisco, New York, Singapore and Sydney. These cities are of interest precisely because they have massive 'hinterland' effects, both as models to be copied, but also as centres of influence.

While there is a perception that global cities are linked everywhere, all the time, always on, specifying their power is a lot more elusive. Moreover, economically powerful cities may be far less significant than cultural and political centres. It is important to think about cities like Jerusalem, which pervades any discussion of the Middle East, the political division of Berlin during the Cold War, the status of Washington, DC and Brussels as places with, perhaps, the greatest number of accredited journalists in any one city, or, in one case I examine here, the role of Rome as the secular container for the world's smallest sovereign state, but the home of the largest global institution in terms of active membership. In getting to grips with this global and local dilemma, I draw on Latour's far-reaching observations, on networks, relations and interactions. I discuss this more in Chapter 2, but for now, consider the following argument:

no interaction is what could be called isotopic. What is acting at the same moment in any place is coming from many other places, many distant materials, and many faraway actors ... no interaction is synchronic ... and interactions are not synoptic. Very few of the participants in a given course of action are simultaneously visible at any given point. (Latour 2005: 200–1)

The aim is, then, to zoom into some of the key engineering sites in the concentrated city. To be more specific, each chapter in the book illustrates some kind of urban technology and city material: the cathedral of St Peter's, itself a machine for expressing power; the sometimes clunky apparatus of the state, with its files, surveyors' offices, litter-bin warehouses and traffic engineers; airports, skyscrapers, glasshouses and hotels.

The mundane operations of these urban spaces are sometimes taken for granted, but are underpinned by calculative practices which value, monitor, and order how people and objects co-produce cities.

It is increasingly fashionable to present the city as having floated free from the nation-state as a site of both prosperity and cosmopolitan identity. Texts such as Ed Glaeser's *Triumph of the City* (2011) or Richard Florida's *The Rise of the Creative Class* (2002) surf upon simplified metanarratives of what cities are and where they are going. By contrast, scholars such as Aihwa Ong (2006), working in a post-developmental context, have argued that many nation-states have been reconfiguring many of the existing power relationships within nation-states and creating a 'graduated sovereignty' of rights and territories. Anderson (1996) explores the possibilities of a 'new medieval' approach to territoriality that conceives of political power as being expressed through multiple organizational forms, some of which are territorial, and some of which are not. In a similar vein, Elden traces the evolution of the concept of territory as being a calculative construction:

Since the seventeenth century, the predominant ontological understanding of the world has been its calculability. If we are to make progress in understanding the geographies of globalization in relation to their territorial, deterritorialized and reterritorialized aspects, it behoves us to understand what their conditions of possibility are. The point is where to begin. (2005: 16)

Elden doesn't explicitly discuss cities in this essay, but he does give some indications about how we might conceive them. On the one hand, cities lie completely within state borders: they appear to be safely territorialized, showing up in censuses, with a city government that sits within a neatly scaled hierarchy of authority. On the other, they are famously porous and unruly due to their density and sheer population size: they are often described as difficult, problematic to govern, unstable. As Elden has argued elsewhere, territory 'is a process, not an outcome ... a political technology, or a bundle of political technologies, understanding both political and technology in a broad sense: techniques for measuring land and controlling terrain' (2013: 36).

The purpose of the book is to identify some specific processes, practices, devices and sites that help to position the term. This involves getting beyond the scalar trap that often dominates debate:

Especially within the social sciences, it has been common to encounter fundamental splits in terms of scale: discussions are often organized in terms of the micro, macro, and meso, for example, as well as local and global. Often rancorous disputes are organized around a host of similar-sounding dualisms: micro/macro, large/small, global/local, particular/general, near/far, and so on ... Typically, adherents to 'micro' analysis are criticized for their resistance to broad generalization. Those in the 'macro' camp are criticized

for their vagueness, for lack of rigour and for the ease with which they jump from particular examples to general conclusions. (Thrift et al. 2014a: 2–3)

For this reason, many scholars are now turning to a range of practice-based measures to work out how cities and globalization are brought into being, on a continual basis. In what follows I tell some stories of cities — or sites, better said — because of their uniqueness, but also processes that are by their nature highly generalized. It isn't either/or, but both.

Furthermore, this means that the sites of the formation of global cities cannot be assumed, or parodied, or glossed. It requires a textured and fine-grained discussion of how sites such as airports are far from being non-places, but are rather constructed through intense specialist practices and workplace sociality that enable and enact both short- and long-distance mobilities; that offices are so important to societies and economies that they might, in aggregate, be regarded as 'territories'; that hotels of all types and standards act as a motor for the essential circulatory nature of global capitalism; and that cathedrals, mosques and temples and their associated buildings are influential organizational sites in shaping wider societal attitudes to the world. From this we can see that there are key individuals who use these sites as a way of ordering societies and capitalism: the CEOs and executives of firms, the engineers, designers and managers, the theologians and preachers.

Similarly, these human actors work with objects and devices, together making or performing the economies of these sites (Barnes 2002, 2008; Christophers 2014). Timothy Mitchell, whose book *Rule of Experts* (2002) charts the formation of the territorial Egyptian state, suggests the need to provide a 'genealogy of the economy' (p. 83), focusing on the tools and techniques deployed to build the state. A growing population had to have certain services provided; to provide the services, revenues for taxation had to be raised. Without knowledge of who owned what piece of land, rent collecting was very patchy. And so, the Egyptian government developed a mapping office which was combined with a set of calculative, statistical practices in order to provide a 'scientific' reading of the economy. As Mitchell says:

New forms of architecture, engineering, science, schooling, statistical knowledge, finance, commerce and government were ordering up a world in which buildings, educational establishments, technologies, commercial houses and the 'visible institutions of the state', in Simmel's phrase, presented to the individual what now looked like an 'objective culture'. (2002: 97)

And yet, the techniques of measurement and division – fairly crude – were subject to material degradation and disrepair, affecting government's ability to be performed. An absence of trained surveyors would hinder the speed with which the territory was established as a stable object of governance. Little has changed in the context of the global city.

CULTURAL AND POLITICAL ECONOMIES

Cities – and for that matter other spatial formations – are not purposeful or bounded economic entities, but sites where the full variety of the 'economy in general' is made visible and juxtaposed, but with crucial effects resulting from the particularities of 'placement'. The urban is not just a microcosm of the world, a window through which the economy can be read, but also a forcing house with considerable power to drive and shape the economy through its gatherings. (Amin and Thrift 2007: 150)

In two significant commentaries, Ash Amin and Nigel Thrift (2002, 2007) set out to reorient ways of theorizing cities as being driven by a performative, experimental capitalism. Their particular interest here is the city as an economic engine, not as an 'economic sphere in its own right', but instead as a 'composite space with compositional capability' (2007: 150). In some ways, this could be seen as a cop-out: the ill-defined city with a vague sense of agency. Nonetheless, they are correct in identifying 'the need to grasp a phenomenality that cannot be known through theory or cognition alone' (p. 9). 'An everyday urbanism', they argue, 'has to get into the intermesh between flesh and stone, humans and non-humans, fixtures and flows, emotions and practices' (p. 9).

Amin and Thrift have provided an important stimulus to understanding the concept of 'cultural economy'. This term has moved beyond the early 'additive' model ('in which all that was attempted was to add a cultural element to an economic explanation'), to a 'hybrid model in which the two terms, culture and economy, are dispensed with, and instead, following actor-network theory and similar approaches, attention focuses on different kinds of orderings' (2004: xiv). Read in conjunction with the broader shifts in economic sociology and political philosophy that underpinned their book, they made a significant attempt to bridge the cultural and the economic, often seen as two very different epistemological standpoints. Three of their keywords were transitivity ('spatial and temporal openness of the city', 2007: 9), rhythms (a Lefebvrian, or perhaps James Joycean, emphasis on everyday encounter and multiple and parallel time-spaces of daily life) and footprints, a simpler metaphor that dealt with the presence of things left behind, either from many years hence, or the split second of anteriority that can be cognized by the urban user.

However, this opening to a fuller sense of the cultural sometimes underplays the important structuring role of specific firms and business coalitions in the constitution of urban economies. In diverse ways, firms large and small channel many of the objects and experiences that we understand as urban culture. In this book we encounter several of them, from the software products of Uber and IBM, to the portfolio strategies of property developers, to the hotel-management practices of the likes of Hilton and Marriott, to the increasingly commercial practices of airport operators. While many discussions of the flow of goods and ideas

through cities have focused on state action, there is little doubt that there is a suite of global service firms that seek to standardize sets of practices, standards and norms that enable the global harmonization of trade, investment and transactions (Beaverstock et al. 2013; Faulconbridge 2006; Boussebaa et al. 2012).

In particular, a relatively small world of accountancy firms – the 'Big Four' audit firms of KPMG, Ernst & Young, Deloitte and PwC – along with major management consultants such as McKinsey are present in many cities worldwide, and normalize business standards through a 'zonal' establishment of rules, procedures, and norms (Barry 2006). Similarly, major IT and computing firms such as SAP, IBM and Apple seek to produce economies of scale in selling their products, and increasingly seek to actively produce the markets they are operating in, by shaping consumer loyalty and satisfaction, as well as by selling more quantity or diversity of products (Rossiter 2016).

To make sense of this requires a reinvestment of time into an understanding of numbers. Barnes and Hannah (2001) have argued that 'the inscription of figures, and later their joining to probability calculations within a burgeoning set of both commercial and statist networks, produced worlds to be organized, controlled, manipulated, studied, and known' (p. 379). Here, the gathering, categorization and deployment of numbers, and an understanding of the work they do to fix a particular thing in place, is an important task that requires an analyst who understands statistical practice per se, but also the representational tropes that it deploys. And it also requires attention to the visualization of complex numbers, as in the intense world-making calculative practices being undertaken through human—screen interactions within cities on a daily basis (Pryke 2010; Zaloom 2010).

MATERIAL TURNS

This book aims to build out an argument about materiality in the construction and operation of global cities. It takes as its starting point a coalition of work that sets out to understand the materiality of cities in their widest sense, which includes the nature of their capitalist economies, an ontology of actors and networks, and an ethnographic epistemology of the state (Amin and Thrift 2002; Latour and Hermant 2006; Bennett and Joyce 2010; Farías and Bender 2010). Through these works, it is proposed that we can approach these big, global cities in a slightly different way, one in which we can hold down, provisionally, a very complex assemblage of facts, theories, observations, artefacts, anecdotes and practices. This partly requires an engagement with the ontology, practice and performance of capitalist society, and in turn an engagement with what is meant by the urban economy.

However, while most scholars are happy to accord some degree of importance to materiality, there are significant differences as to how this is actually theorized. As Chris Otter has pointed out in an insightful essay, the range of diverse traditions that contribute to urban analysis have very significant differences between them:

With urban sociology, the material is a *background* or *arena* within which social forces act and social structures are formed. With capital, the material is an *outcome*, but also a *medium* through which capitalist social relations are reproduced and an *obstacle* to later capitalist development. With culture, the material is a *text* to be decoded or a *symbolic* bearer of meaning. Obviously, material things and systems *do* often function as background, arena, outcome, medium, obstacle, text or symbol. However, every one of these functions leaves materiality itself – the forms, states and qualities of matter – analytically underexplored. (2010: 43, italics in original)

By extension, explanations of why cities grow, and why they fare differently, would have to address this point. As Otter (2010) continues many theories of the urban dematerialize our understandings of cities *on purpose*. He identifies three distinct theoretical approaches that have done this for different reasons. For early twentieth-century sociologists such as Simmel or Park, new modes of social organization – dense living, for example, and crowded streets – 'made' people socialize differently. For Marxists such as Lefebvre, Castells and Harvey, the urban was 'the site for, and medium of' (p. 40) social relations based on access to capital. And for cultural theorists the focus shifted towards semiotic strategies that tried to decode and decipher landscape, space and building and 'read off' their representational power.

In this latter approach, influenced by the impact of post-structuralism in the humanities, social identities are seen to be mediated and produced through different texts. Otter (2010) suggests that the re-emergence of materialist interpretive frameworks was a response to this 'cultural turn' in urban theory, where a focus on meaning, representation and interpretation – especially in visual terms – became the dominant mode of urban critique. As Otter notes:

Material things ... were never entirely ignored in such analyses, but they remained undifferentiated and black-boxed. Little serious attention was devoted to physical qualities: molecules, forces and textures. In urban sociology, material space was primarily a backdrop for social action ... The cultural turn threatened a wholesale, reductive dematerialization of the city. (2010: 43)

Otter introduces three alternative modes of interpreting materiality. The first, 'thing theory', provides an abstract understanding of how the materiality of objects lead to different human understandings and moral judgements, related to mystery, excess, innate potential, consumption and so on. This object-oriented philosophy was popularized through influential books such as Jane Bennett's (2010) *Vibrant Matter*, which advocates a 'molecular' level of material analysis, either a fundament or a triviality depending on your viewpoint. The philosophical intricacies of this are not my main focus here, though it is important to recognize the significance