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Introduction: Climate Urbanism—Towards a Research Agenda

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1.1 Introduction

This book argues that as climate change dramatically reshapes how we understand, imagine, live, and intervene in cities, a New Climate Urbanism is emerging as a way to rethink and reorient urban life. This emergence is rooted in the decade-long recognition that significant actions on cities and urbanization are required as crucial elements in policy responses to climate change (Bulkeley 2013). Rapid urbanization is a major driver of climate change and cities have become important sites for adaptation and mitigation efforts and for developing climate-resilient development pathways (Revi et al. 2014; IPCC 2018). Around the world, urban areas have to respond to the new realities created by a changing climate, including enhanced exposure to climate risks and climate-induced migration. These challenge existing forms of urban management,
particularly at a time when cities are adjusting to a new context for urban public health management following the COVID-19 pandemic. With public health and climate crises increasingly overlapping, urban futures now look less certain and more insecure. Some are hoping for the COVID-19 pandemic to be the opportunity to rethink the kind of system and relations that brought us here and to catalyse transformations for promoting long-term sustainability.

Debates around climate change politics, governance, and vulnerability have thus elevated discourses of urban transformation: climate change politics has become an essential driver of new models of urbanism (Castán Broto 2017). Increasing protection against environmental threats is a priority for climate-proofing and retrofitting efforts (Bulkeley et al. 2015). Defensive projects, such as large infrastructural projects and the securitization of ecological enclaves are enhancing existing and creating new inequalities (Hodson and Marvin 2009; Rice et al. 2020). These new models constitute a New ‘Climate Urbanism’ (Long and Rice 2019), whereby different actors within and across urban areas re-define what cities ought to be in a changing climate. This edited volume is the first attempt to map, systematically, the contours of a research agenda on this New Climate Urbanism. Our focus is not only on the material and technical elements that make up urban spaces but also on the changing social practices that follow major transformations of urban cultures. We use the term ‘urbanism’ because, as geographer Eugene McCann (McCann 2017) explained, we are looking into how urban life is defined and understood at different points in time (and space), and how this has historically shaped different ways of intervening in cities. Today we find ourselves in an intensified ‘climate moment’ for cities, as climate change transforms both how we live in urban areas and how we govern them in fundamental ways. This edited volume sets out to explore the challenges posed by the emergence of this new paradigm, starting with the question: what does climate urbanism consist of, and how does it differ from other models of urbanism? This question articulated discussions during a two-day workshop on the New Climate Urbanism, hosted by the Urban Institute (University of Sheffield) in September 2019, which brought together many of this book’s contributing authors. Following from this meeting, this book aims to develop a research agenda on the constitutive elements
of climate urbanism, its drivers, and its impacts. The contributions gathered here examine the rationalities underpinning how climate urbanism is embraced, promoted, or contested, and how it transforms socio-material fabric of cities, addressing one or more of the following research questions:

• How can we define climate urbanism?
• What type of expertise and knowledges are produced, mobilized, and needed in this new era of climate urbanism?
• What are the absences and silences in research on cities and climate change? What should be the research priorities for the future?
• How can a research agenda on climate urbanism encompass the diversities of planetary urban conditions?
• How can researchers engage with climate urbanism to make a difference to policy and practice, to create and deliver environmentally just transformations?

This book offers some preliminary takes on these debates, bringing together thirteen contributions from a range of scholars in the field. These contributions aim not only to map the whole gamut of possible research directions on climate urbanism but also to foster multi-disciplinary dialogue. Adapting and responding to climate change will require solutions that mobilize different epistemological and theoretical perspectives in different geographical locations. In this book, we wish to emphasize the importance of accounting for differences in theorizing urban life under climate change—beyond the experiences of cities of Europe and North America. We also call for an honest reckoning with the limits of our disciplinary knowledge to understand the manifold ways in which urban areas change in the age of climate change. All the contributions were written before the COVID-19 crisis. However, climate change is inherently an issue of human health and well-being. The pandemic has therefore not changed our intent: rather, it has reaffirmed the need for a concept of human protection that engages with the urban collective. A safe city is one that addresses both climate change impacts and public health risks in a just manner, and this requires a rethinking of
how we, as human collectives living in cities, relate to nature within and beyond our cities.

We have divided this book into four parts that help us conceptualize and trace the contours of a research agenda on climate urbanism.

- Part I asks ‘What is climate urbanism?’ and explores the key features of climate urbanism from different locations and epistemological traditions, highlighting the shortfalls of dominant theorizations of climate urbanism, firmly grounded in research in North America;
- Part II develops a critical perspective on the transformative potential of climate urbanism, particularly its ability to challenge social and environmental injustices;
- Part III focuses on climate urbanism as a knowledge-mobilizing process. It links knowledge production to the delivery of climate urbanism as a distinctive mode of urban development and critically interrogates current knowledge paradigms underpinning climate and urban science;
- Part IV envisages the delivery of climate urbanism as a new communal project, focusing on the role of citizens and non-state actors in driving transformative climate urbanism. It seeks to broaden the definition of urbanism beyond a focus on state and private actors to identify more radical pathways for the implementation of just climate action in cities.

1.2 What Is Climate Urbanism?

The book aims to define what climate urbanism is, and the extent to which it differs from previous theorizations of the relationship between climate change and urban transformations. Rather than emerging as a consistent model for urban development or as a compendium of characteristics in the city, a research agenda on climate urbanism has emerged as a critique of how climate change is addressed in contemporary cities. In Chap. 2, Enora Robin, Linda Westman, and Vanesa Castán Broto call for a minor theory of climate urbanism, arguing that existing research has failed to develop theorizations of climate urbanism that reflect the diversity of urban conditions. In doing so, the authors set out future
‘research-praxis’ directions that articulate minor perspectives into broader theorizations of climate urbanism. In Chap. 3, Joshua Long, Jennifer L. Rice, and Anthony Levenda extend previous arguments about climate urbanism as an approach characterized by the emergence of new governance arrangements centred around carbon control and securitization (see also Rice 2010; Rice et al. 2020). To them, these approaches to climate urbanism create new logics of climate apartheid, furthering and creating new form of inequalities in cities.

Scholarly engagement with climate urbanism requires to critically explore its current manifestations and to expose its most damaging impacts, but it also implies exploring how it could be appropriated as a progressive tool to reimagine urban life in the age of climate change. Following Long, Rice, and Levenda, most chapters in this book approach climate urbanism as a polyvocal and generative concept that can be mobilized to engage with pressing issues such as climate-related segregation (or ‘climate apartheid’) and to rethink the relationship between urbanization, cities, and broader processes of ecological violence and dispossession. In this vein, in Chap. 4, Linda Shi stresses two limitations of climate urbanism as currently framed. Firstly, climate change forces us to think through connexions that extend beyond the city’s limits, and future research should not solely focus on cities as a unit of analysis. Secondly, the legacy of already well-known structures of oppression (e.g., colonialism, capitalism) should also be recognized. To her, the emerging framing of climate urbanism is more a manifestation of late capitalist urbanization with climate characteristics than something specifically new. This provocation invites us to consider whether an emerging research agenda on climate urbanism is likely to generate novel insights to support pathways for transformative actions in cities. In Chap. 5, Sirkku Juhola develops a theoretical framework to how climate challenges give rise to new ways of governing cities. This proposition addresses Shi’s concerns about the novelty of the ‘New’ Climate Urbanism, paving the way for a systematic exploration of how urban governance is reconfigured as a result of climate change. Overall, what we call a New Climate Urbanism is distinctive insofar as it enables the analysis of a significant qualitative shift in the way we think about and act in cities under climate change. Still,
many of the contradictions embedded in current forms of urbanism remain entrenched in the way urban areas are approached and understood in the context of climate change.

1.3 Climate Urbanism and Transformative Action

The second part of the book engages with a deliberate concern for the ability of climate urbanism to foster just urban transformations. In Chap. 6, Linda Westman and Vanesa Castán Broto show that cities and local governments are still ignored as transformative agents in international climate policies. Working through these tensions and speaking to the question of scale, a central issue for climate urbanism research will be its capacity to reframe the relationship between national and local governments. Climate urbanism may be a mechanism that reinforces urban governance to enable responses to climate change. In Chap. 7, James J. Patterson brings to the fore the question of institutional change to conceptualize transformation towards progressive forms of climate urbanism. In doing so, he stresses the need for future research to understand processes of change within historically and socially distinct settings. In Chap. 8, Eric Chu considers the concept of urban resilience and the way it shapes urban development strategies to address climate change, drawing on the experiences of two Indian cities. His work stresses how popular ‘climate-friendly’ concepts can spur or hinder transformative action on the ground. In Chap. 9, Corina McKendry explores the integration of climate action into the growth agenda of Colorado Springs, a conservative US city led by a climate-denying mayor. Her provoking intervention shows that even the most conservative cities can implement climate-friendly strategies when it suits their economic interests. In this example, social justice and climate change are not political arguments that local leaders put forward to justify low-carbon investments, even when some of those benefit low-income communities. The example stresses the importance of rethinking the geography of climate urbanism to move away from cities that portray themselves as climate leaders and to consider a range of experiences where climate action is implemented out of
economic necessity rather than political commitment to address climate change. Overall, there is no evidence yet that climate urbanism is in any way transformative. Defining what is transformative and the language of transformation are themselves questionable. Perhaps we should focus more on rethinking climate change politics in the city and analysing urban change, rather than trying to define what transformations should look like a priori, as they become a new unicorn in urban theory.

1.4 Knowing Climate Urbanism

Issues of knowledge politics are central to climate urbanism. Expanding the geography of climate urbanism research requires to look at the political economy of climate and urban knowledge. At the moment, there have been some efforts to explore how knowledge politics shapes different models of climate urbanism. In Chap. 10, Marta Olazabal examines local governments’ capacity to address climate change through knowledge of risks and adaptation strategies. Her review highlights that local adaptation plans are still lacking in many cities around the world. Climate adaptation plans, when they exist, often lack evidence on climate risks. The implications of her research are enormous. If adaptation plans are not built on evidence, what are they built on and what purposes do they meet, beyond displaying local governments’ climate concerns?

In Chap. 11, Luna Khirfan emphasizes the multiple relationships that co-constitute climate urbanism. Her contribution shows how design-centered knowledges can help understand how the socio-physical and behavioural components of urban systems are reconfigured through environmental change. Her contribution establishes a counterpoint to other critical contributions in this book by highlighting the potential of design thinking to support climate adapted urban futures. Strengthening collaborations between socio-ecological, institutional, and geographical research with more practice-oriented disciplines, such as urban design, architecture, and planning, will be essential for climate urbanism research to shape urban trajectories going forward. Furthering partnerships with state, private, and civic actors, among which citizens, will also be essential to support transformative actions on the ground. In Chap. 12, Andrew
P. Kytheotis and Theresa G. Mercer explore the potential of new educational strategies as knowledge production processes that support intergenerational learning and empowerment. Their work raises questions as to how future research on climate urbanism can integrate innovative pedagogical practices and new forms of collaborations. Overall, the critical questions raised by the multiple expressions of climate urbanism in contemporary cities are intrinsically linked to the processes of knowledge production that make them possible. Reimagining more just forms of climate urbanism requires examining alternatives to the hegemonic knowledges that dominate planning and management in contemporary cities.

1.5 Climate Urbanism as a New Communal Project

Are there any alternative approaches to climate urbanism that prevent deepening urban inequalities? We generally celebrate forms of community-based action based on collective solidarities. However, the evidence of community-driven projects challenging dominant modes of climate urbanism is patchy, at best. The final part of the book brings together two contributions focusing on the role of communities in producing socially just and transformative climate urbanism. In Chap. 13, Long Seng To draws on the example of community projects in Nepal and Malawi as useful forms of governance to support adaptation to climate risks. She argues that community-led energy projects are more attuned to the specificity of local hazards and exposure to risks and build on local knowledge(s) in the context of decentralized governance. In Chap. 14, Jenny Pickerill reflects upon her long experience of studying eco-communities, showing that those provide opportunities to change broader cultures of relating to nature, environment, and resource flows. She also stresses the inherent contradictions built into eco-communities and how those limit their potential for larger transformative action. Both examples highlight that even in reimagining new communal responses to climate urbanism there is not a ready-made solution to sustain a just city under climate change.
1.6 Conclusion

The contributions brought together in this book suggest the emergence of different modalities of climate urbanism, which can be progressive and emancipatory (To; Pickerill; Kythereotis and Mercer) but never without contradictions (Rice, Long and Levenda; Patterson; Shi; Chu; McKendry). Different modalities of climate urbanism coexist and, at times, conflict with each other as their emergence is shaped by differing historical, socio-ecological, cultural, and political processes (Robin, Westman and Castán Broto).

Read together, these chapters showcase multiple forms of climate urbanism that we can group into three main modalities: reactive, entrepreneurial, or transformative. Reactive climate urbanism relates to the actions taken in cities to simply deal with the noticeable impacts of climate change. Indeed, violent physical and ecological transformations are already taking place, and cities are bearing the brunt of their impacts: from heatwaves to flooding, rising sea levels to melting glaciers, and dwindling water reservoirs, the resource security challenge has become central to the governance of cities. For example, in February 2018, the city of Cape Town was the first to introduce water restrictions after a drought depleted its reservoirs. Other cities like Maputo found themselves in similar situations, with citizens turning to private solutions to deal with water shortages. There is also growing evidence that climate change fosters large population displacements towards small and medium cities. The International Displacement Monitoring Centre has argued that 18 million people were displaced in 2017 due to climate change-related disasters. Cities are coping, for better or worse, with these enormous changes. Sometimes the consequences are born by the poorer sectors of the population, further increasing urban inequalities and vulnerability to new risks, as explored throughout this book. Entrepreneurial climate urbanism relates to a trend in climate urbanism, whereby climate change is seen as a new opportunity to foster economic competitiveness in cities, and where climate change impact worsens inequalities and competition between cities. The emphasis on ‘entrepreneurial’ aims to highjack the discourses of those proponents of uncritical optimism, which see
this form of climate change-oriented disaster capitalism as a new wonder-land for opportunities. In this way, the existential challenge posed by climate change is appropriated to reimagine current capitalist systems: under climate change, cities are set to develop a green, circular economy that will follow with a bountiful of economic benefits and jobs. Finally, transformative climate urbanism refers to the growing efforts by multiple actors to use cities as platforms for a broader transformation through different modes of experimentation with technologies and social life, or through insurgent forms of activism that lead to broader social mobilization. These efforts to implement climate action represent, in essence, an attempt to reconfigure the boundaries of what is acceptable and desirable. Identifying the drivers of change to transition to a particular modality of ‘climate urbanism’ will be a fundamental task for future research on the topic, and it closely relates to the question of scale, as discussed by many contributors in this book.

We will return to these modalities in the conclusion of the book, where we will evaluate their potential in terms of generating both a research agenda and an agenda for action on climate urbanism going forward. Transformative climate urbanism holds the most potential for environmentally just forms of urban development, but the contradictions embedded in urban climate action are also evident. Moreover, the pathways to transformative action will vary across geographies. This edited book offers some starting points for researchers and practitioners to think through the current and future reconfiguration of life in cities in a climate-changed world without losing sight of the diversity of urban life.

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