

# The New Climate Urbanism: towards a research agenda



## Introduction

The last four years have been marked by a recognition of the urgent need to develop policy responses to a changing climate on the one hand, and by the identification of ‘cities’ and urbanization as key elements in climate change politics both locally and globally on the other hand. Indeed, rapid urbanization is increasingly recognised as a driver of climate change and at the same time cities have been portrayed as essential sites of action for adaptation and mitigation efforts, and for developing ‘climate resilient development pathways.’ Urban areas around the world have to respond to the new realities of significant climate change, through climate proofing, increased frequency of risks or climate migration. Debates around climate change politics and governance have thus elevated discourses of urban transformation: there is now a realisation that not only what happens in cities influences climate change but also that climate change politics is an important driver of new models of urbanism. As a response to these debates, the Urban Institute at the University of Sheffield hosted a two-days international workshop on ‘The New Climate Urbanism’ on Sept 4<sup>th</sup>-5<sup>th</sup> 2019, as part of its ongoing research on this theme. The workshop gathered together over thirty participants working across urban and political geography, engineering, planning, science and technology studies and environmental sciences to reflect on the novelty and distinctiveness of an emergent climate urbanism at the global scale.

Over two days, participants were invited to explore the following questions:

- What does climate urbanism consist of and how is it different from other models of urbanism?
- Is there a new era of climate urbanism, and, if so, what does that mean for research and thinking about cities and climate change?
- What are the gaps, absences, and silences in research on cities and climate change? What should be the research priorities for the future?
- Is climate urbanism sufficiently internationalist in its perspective? How might urban climate research encompass the diversities and similarities of international contexts for a new climate urbanism?
- How might researchers make a difference to policy and practice? Are we doing enough?

The objective of the workshop was to develop a research agenda focused on the different modalities of climate urbanism, its drivers and impacts, and included a variety of papers that examined the rationalities underpinning how climate urbanism is embraced, promoted, or contested, and how it is transforming the physical and social fabric of urban life. This workshop report highlights some of the key themes that emerged from the two-days conversation, which we hope will provide useful starting points for a future research agenda on climate urbanism, namely:

- Understanding the novelty, potential and limitations of the concept;
- Analysing the rescaling process at play in defining the relationship between urbanism and a changing climate;
- Understanding the challenges (and possible changes) brought about by the implementation of integrated climate action at the urban scale;
- Exploring the technical rationalities shaping a new climate urbanism;
- Critically unpacking the forms of knowledge that are mobilised in and would be needed for a new climate urbanism;
- Understanding the role of non-state actors in shaping more just forms of climate action.

## What is climate urbanism?

The workshop started with a keynote on *Climate Urbanism: Past, Present and Future* by Jennifer Rice and Joshua Long, defining climate urbanism as an approach that assumes cities as the best suitable sites for addressing climate change, characterised by the emergence of new governance arrangements centred around carbon control. Here the New Climate Urbanism is envisaged as an approach shaped by technocratic rationalities that prioritize technological and infrastructural projects – requiring immense amounts of capital and new institutional frameworks to assemble the necessary resources to finance such projects. Climate action in this context is governed through simplified (carbon) metrics – a focus that neglects broader issues of environmental justice and inequalities. Furthermore, the New Climate Urbanism has to be situated within a broader discourse of emergency, and thus appears as a defensive reaction to the existential threat of climate change. This results in the production of segregated, exclusive eco-districts, climate proof enclaves for the elite.

Despite these criticisms, Rice and Long reflected on the need to mobilise climate urbanism as a tool to reimagine what cities could look like in the age of climate change, alongside naming and dismantling the root causes of the climate crisis (i.e. capitalism, racism and patriarchy). In that sense, climate urbanism should be seen as a polyvocal and generative concept: it should be mobilised to engage with other issues such as climate apartheid and should help us think about the relationship between urbanization, cities and broader processes of ecological violence and dispossession (e.g. large scale infrastructure projects reshape the relationship between urban and non-urban spaces). Similarly, this concept should help locate the emergence of unequal forms of subjectivities in the climate changed city, namely the climate privileged and the climate precarious, as the climate apartheid manifests itself through the built environment, through uneven vulnerability to environmental hazards, through uneven access to natural resources and through changing definitions of citizenship, specifically as they relate to migration and securitization. Long and Rice concluded offering four provocations as to how scholarly research engaging with climate urbanism could contribute to addressing issues posed by the climate apartheid:

- **Critically unpacking current propositions to address climate change impacts as these are embedded in systems of exploitation and violence.** *This raises questions as to how future research on climate urbanism can help find alternatives to such systems and not just offer a critique of oppressive structures of power.*
- **Empowering marginalised epistemologies, practices and ontologies as these can advance the valuation of global ecosystems and biodiversity at large.** *This raises questions as to how future research can mobilise these epistemologies to reframe the relationship between the urban and a changing climate? How can this be linked to research engaging with social movements and/or educational work within the university?*
- **Dismantling the notion of property and wealth.** *The question of land is central to the issue of climate justice, particularly as secluded, protected spaces cater for the climate privileged, leaving the climate precarious to their own device. In that sense issues of abolition and reparation should be put forward in the debate. How can this be integrated into transformative scholarship?*
- **Linking climate justice to the advancement of human rights.** *This raises questions on the coloniality of human rights discourse and the question of rights for the non-human too.*

As many workshop participants noted, one might wonder what is distinctively urban about such aims. Linda Shi, in her intervention, stressed two key limitations of climate urbanism as currently framed: namely the fact that climate change forces us to think through connexions that extend beyond the city's limits, and to acknowledge the legacy of already well-known structures of oppression in climate urbanism research (e.g. colonialism, capitalism). In raising the second point, she questioned the novelty of the concept and its value in helping us think through the challenges brought about by a climate changed world. Throughout the two days, different interventions addressed the issue of scale and explored the transformative potential of a new climate urbanism.

## **Climate urbanism and the question of scale**

The question of scale was central to the workshop discussions. In his presentation, Ankit Kumar questioned the implications of a new climate urbanism on the politics of friendship and hospitality at the city-level. In doing so he offered interesting provocations on how spaces of hospitality could be created within the city, in the context of exclusionary state policies. He asked whether a focus on the urban would equate to a complete homocentrism in the way we think about relationships and politics in a climate changed world? He also asked how we could extend a sense of empathy and hospitality to non-humans, wondering how to think zoocentrically whilst keeping the space of homo-centric politics open? To him philoxenia - the love for strangers or the ethical commitment to strange friends - as opposed to the state's radical exclusivity, could be one way forward. In context of climate urbanism, he argued that hospitality and friendship key to adapting to a climate changed urban world, and essential to the creation of communities that operate within but without states. Taking a broader view on the issue of scale, solidarity and 'the urban', Stefan Bouzarovski stressed the importance of thinking about climate action, particularly as it emerges from the grassroots, as relationally constituted through different scales. In this perspective, he offered a fruitful critique of the notion of upscaling to consider the interactions of different scales of action (from the district to the EU) for grassroots movements, which were shown to strategically mobilise different scales of engagement to finance and implement sustainable energy projects. Going back to the question of collective action, solidarity and transformation, his intervention invited us to rethink the effectiveness of specific actions not as necessarily contingent upon only one scale. Rather, he stressed the need to think about the many strategic ways in which scale empowers or disempowers different groups, instead of only considering effective climate action in terms of upscaling and downscaling. Taking us back to the city-scale, Luna Khirfan emphasised the importance to think about the relationship between the physical and social world, as well as individual behaviours, as co-constitutive. Drawing on Lynch's theory of Good City, she argued that future research on climate urbanism should evaluate climate mitigation and adaptation efforts in light of their transformative potential, thinking through issues of fitness, vitality/adaptability, control, efficiency and impact on urban justice more broadly. Her intervention contributed to recast the question of scale as an issue that has to engage with the entanglements of the socio-physical and behavioural components of urban systems. This is central to the identification of particular drivers of change in the emergence of a form of urbanism that would incorporate the complexity and disruptions brought about by a changing climate. In her intervention, Gina Ziervogel emphasised the importance of scale within the context of enduring climate crisis. Building on the example of the Cape Town drought, she showed how the scale at which different individuals and groups experience particular forms of climate crisis also shape their (individual and collective) responses to it.

## **Climate urbanism and transformative action**

Identifying the drivers of change to transition to a particular regime of 'climate urbanism' was another central question during the two days, and it closely relates to the question of scale. James Patterson's intervention brought to the fore the question of (messy) institutional change when thinking about transformative action. In doing so he stressed the need for future research on climate urbanism to move from prescription to understanding processes of change, remaking the rules-in-use, and understanding the consequences of deliberate action within historically and socially embedded settings. In his keynote intervention, Eric Chu discussed the inherent tensions between wanting to instigate institutional change and project-based funding mechanisms for climate action, drawing on the example of the Rockefeller Foundation's 100 Resilient Cities initiative. His presentation highlighted the limits of impact-driven funding, and the difficulties for the program to show marketable evidence of its success. At the same time, when reflecting on institutional change, he showed how this form of highly publicised, philanthropic initiative elevated the discussions on resilience and urbanism to another level, in many cities. He further argued for the need to investigate how this type of momentum – and how loosely defined concepts such as resilience - can be leveraged to spur transformation, even in the absence of philanthropic funding (as the 100 Resilient Cities came to a close this year). The question of transformation, in future climate urbanism research, should also attend to the capacity of particular words or concepts to spark action in different contexts, and should explore what makes them so

powerful (and indeed resilient) in discussions around cities in a changing climate. The need for transformative action also raises further questions as to what mode of research is more suited to grasping complex processes of change. Jenny Patient's presentation directly tackled this issue, as she explored the potential of collaborative research to trigger new forms of connexions. Her work with trade unions within energy intensive industries for instance showed how engagement with trade unions can help researchers and environmental activists to think about how to communicate research in a way that addresses workers' concerns in carbon intensive sectors. In addition, her work highlighted the need for future research on climate urbanism to move beyond the usual suspects when thinking about strategic alliances for climate research (e.g. climate justice movements) to build coalitions across sectors. Expanding the range of actors involved in action-research projects to include energy intensive industries could be one way in which climate urbanism research supports just transitions, thinking about workers' rights, economic restructuring and the challenges of decarbonisation jointly. This was also central to Andy Jonas' presentation, albeit it focused more explicitly on city-level strategies and economic restructuring in disadvantaged European maritime port cities. This intervention showed how peripheral cities that have experienced economic decline in the past mobilise the new climate agenda to reinvent themselves. Future research on climate urbanism should thus look at cities that usually sit at the margin of urban and climate research to explore how climate governance is integrated in (and shapes) the economic imagination and restructuring of economically disadvantaged cities. Corina McKendry's presentation also looked at the ways in which climate action is integrated into the growth agenda of Colorado Springs, a conservative US city led by a climate denying mayor. Her provoking intervention invited us to reflect upon the ways in which even the most conservative, anti-climate action cities can implement low carbon strategies when it suits their economic interests. In this example, social justice and climate change are not political arguments put forward by local leaders to justify low-carbon investments, even when some of those benefit low income communities (e.g. bike lanes created in low income neighbourhoods). Her interventions, like Jonas', stressed the importance of rethinking the geography of climate urbanism research to move away from cities that portray themselves as climate leaders to also consider experiences where low-carbon action is implemented out of (economic) necessity rather than a political commitment to become a climate-friendly city.

### **Climate Urbanism as a technological utopia**

Workshop participants also discussed the emergence of new solutions to climate-engineer the city. Aidan While introduced the Urban Institute's research on Robotics and Automation, discussing the disruptive potential of new technologies and their implication for climate adaptation and mitigation. Specifically, this intervention argued that future research on climate urbanism should engage with the post-smart city agenda to interrogate how robotics can remake nature-society relations and to question what it means to be human in a climate changed city. It highlighted potential avenues for research looking at climate urbanism in relation to robotics and automation, including questions of surveillance, carbon policing and profiling, new forms of labour, augmented production and resource management, argi-tech and urban food production, environmental knowledge production and real-time management. Through this specific lens, climate urbanism can be seen as an attempt to manage turbulences through technology driven solutions – including carbon control, or the creation of new climates within the city – and has implications for urban securitization and the reproduction of everyday life in the city. Building on this intervention, Jonathan Rutherford explored the ways in which micro-climates can be replicated to support food cultures in urban areas (and beyond). He stressed that climate urbanism should integrate the engineering of local/micro-climate conditions in very specific places, which in turn support particular activities. Integrating reflexions on climate creation differs to previous focus on climate adaptation or mitigation, and matters for broader concerns about techno-climatic enclosures but also – and relatedly – for the capacity of certain groups to insulate themselves from the limitations / challenges raised by a changing climate. In his intervention, Simon Marvin reiterated the importance of attending to the darker aspects of climate urbanism, for instance in relation to technological developments, and also highlighted the need to reflect on the limits of climate engineering and securitization, which often constitute temporary (and elite-driven) solutions to the immediate threat of climate change, but do not necessarily constitute long-term solutions to reinvent urban life in a changing climate.

## **Knowing climate urbanism**

Issues of knowledge production and knowledge politics were discussed throughout the workshop, particularly as the way climate change is understood - possibly as an urban issue - shapes local action, from citizens, governments, private sector actors and civil society organizations. Focusing on citizens' education specifically, Andrew Kythreotis and Theresa Mercer explored the potential of new forms of educational strategies to support intergenerational learning and empowerment. This raises questions as to how future research on climate urbanism can be integrated into pedagogical practices, a theme that ran through several presentations across the workshop. Ryan Bellinson's presentation emphasised the need to engage in co-production efforts with climate movements. He particularly explored the extent to which co-production happened in the case of Greater Manchester. Liz Sharp also focused on knowledge, in this case, drawing coproduction as a necessary condition to deliver effective water management policies in Hull, as it is crucial to understand how rainwater harvesting systems are used.

These examples were particularly inspiring in questioning academic *research practices* and the modalities climate urbanism research at a time when ordinary citizens are mobilising through individual and collective actions. Moving away from citizens to focus on state-led processes, workshop participants highlighted the need to attend the knowledge devices that are used to make sense of climate change and to guide climate action. In her intervention, Sarah Fuller directly linked the question of data production and the allocation of role and responsibilities, drawing on research in Singapore. She stressed that the allocation of responsibility shapes intra-state relationship and different actors' capacity/willingness to act in response to a changing climate. In her review of states' Nationally Determined Contributions (NDCs) to reduce emissions and adapt to climate change, Linda Westman showed that these strategic documents very rarely mention cities or highlight cities as relevant sites of intervention for climate action. The urban itself, when mentioned, is referred to as something that can be managed by the national state, and civil society organizations and businesses are more often mentioned as relevant actors for climate action than local governments. In stressing this shortfall, her intervention highlighted a key challenge for future climate urbanism research, namely its capacity to be relevant in a context where national states, in many parts of the world shape the financial, political and administrative capacity of cities. Presenting findings from her review of adaptation plans in 136 coastal cities across 68 countries, Marta Olazabal also raised the question of local governments' capacity to address climate change. She highlighted that local adaptation plans are lacking in 90% of African cities. She further stressed the fact that many of these plans lack adequate evidence on climate risks. Working through these tensions and speaking to the question of scale, a key issue for climate urbanism research will be its capacity to reframe the relationship between the urban and climate change in a way that can spark transformative action at different scales of governance, and to avoid conflating 'cities' or 'urban' with local government action, as these might not be the most relevant actors to engage with in contexts where they have very little capacity. As most research to date has focused on 'the Global North' there might be an inherent bias in climate urbanism research to assume the capacity of local states to act and to leverage resources for climate action. Expanding the geography of climate urbanism research will require to look at other forms of governance (more fragmented, and complex) and at the political economy of climate knowledge, reflecting on how the ways in which we know climate change also shapes the attribution of roles and responsibilities and partly determines how it the issue addressed across urban areas.

## **Climate urbanism a new communal project**

A final theme discussed in the workshop was the role of community-driven projects in the production of socially just and transformative climate urbanism. Long Seng To discussed the example of community projects in Nepal and Malawi as useful forms of governance to support adaptation to climate risks. She argued that community-led energy could support adaptation strategies that are more attune to the specificity of local hazards and exposure to risks, building on local knowledge(s) in the context of decentralised governance. Jenny Pickerill gave us a tour de force over her long experience of studying eco-communities, showing how eco-communities provided opportunities to change broader

cultures, although the inherent contradictions built into eco-communities meant that their development was a struggle.

### **The New Climate Urbanism: reflexions for future research**

In her contribution, Harriet Bulkeley provided an overview of cities and climate change research. In her presentation New Climate, New Urbanism, she provided a baseline to develop a new research programme on climate urbanism. What is different now? How has international policy reconfigured urban thought and work? In what ways has climate policy become distinctively urban? Her provocation constituted a starting point to differentiate the new wave of research as one particularly focused on developing a critical perspective on cities and climate change with the explicit aim to question technocratic approaches to the theme. Future research on the new climate urbanism will build on these reflexions to question what cities are and can be in a climate changed world, and what kind of actors, institutions, knowledge(s) and more-than-human processes shape the emergence of new urban worlds.

### **Additional information**

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