

Book review: *Infrastructural Lives: Urban Infrastructure in Context* (eds) Stephen Graham and Colin McFarlane

Sobia Ahmad Kaker

Infrastructural Lives: Urban Infrastructure in Context is a timely publication that brings together a wide range of scholarship on the interactions between urban lives and socio-material infrastructures across different socio-political and geographical contexts. In the introductory chapter, Graham and McFarlane envision that the edited volume will fill a gap in the current scholarship on infrastructure and urbanism. In bringing together accounts of how complexes of infrastructure mediate urban life, the authors aim to make visible 'the people of the world's burgeoning cities, and the ways in which they experience urban lives that intermesh with, and are sustained by, the complexes of infrastructure' (p. 1). In order to focus the debate on the ways in which infrastructures are produced, lived with and contested, and how infrastructures subjugate or facilitate urban lives, the authors have split the 10 chapters in four thematic parts.

The first part, titled 'Knowing infrastructure', questions how we know and experience urban infrastructures, and how infrastructures shape and impact on urbanism. In Chapter 1, Abdoumalig Simone tackles this challenge. Drawing on detailed ethnographies of everyday life in Jakarta, Simone presents a vivid picture of infrastructure as a dynamic constellation of processes of urban inhabitation, urban socio-material and socio-political relations, and the surfaces and materials through which urban lives are built and lived. Simone's conceptualisation of infrastructures as fluid and dynamic intersections of and between urban social and material worlds is an important contribution in this volume, especially as it showcases how urban infrastructures are temporal, incremental and dynamic interchanges that allow residents to seek opportunities, hedge risks, recalibrate options and manage contingencies in complex and often precarious urban worlds.

Relatedly, in Chapter 2, Vyjayanthi Rao offers a way of thinking of infrastructure as processes made through the pragmatic ways in which Mumbai's residents inhabit the contingent and extremely megacity. She offers an understanding of how density is an experience that is both productive of elastic and adjustable forms of infrastructure, but is also tied to social and infrastructural engineering to

allow 'proximate distancing'. Rao makes important points by making visible the socio-cultural and political specificities of infrastructural relations in Mumbai and in questioning the resultant politics of representing the innovativeness and conviviality in the flexible city; yet at times her argument seems disjointed across the various empirical and conceptual discussions, distracting the reader from her main argument on infrastructural lives/knowing infrastructure.

Part II, entitled 'Infrastructural violence and dispossession', is centred on questions around urban exclusion. The three chapters in this part shed light on the various logics that produce infrastructural violence and dispossession, and the ways in which this is lived and experienced. In Chapter 3, Stephen Graham, Renu Desai and Colin McFarlane showcase how informal infrastructures of water supply in Mumbai's poor urban neighbourhoods are violently dismantled by the city authorities. The authors point out how this violence—motivated by urban elite aspirations to make Mumbai a world class global city—does nothing to solve the water crisis in Mumbai. Yet, it continues to exacerbate existing structural and socio-spatial inequalities and vulnerabilities as the search for alternative water access results in making the poor victim to disease and police brutality.

Continuing on the theme of infrastructural violence and dispossession, in Chapter 4 Mariana Cavalcanti offers a compelling account of how economically motivated processes of urbanisation result in militarised strategies of pacification of Rio de Janeiro's favelas, and how such state-led incursions alter the relations of power and authority between the state and its margins, and between different actors exercising legitimacy and authority within the city's peripheral favelas. Although Cavalcanti convincingly argues that pacification of favelas frayed long-established traditions of socio-political organisations and relations of power within favelas, her chapter does not adequately develop the organising theme of 'infrastructure' in discussions of violence and dispossession, even though her arguments made it implicit that material infrastructures were critical in mediating relations of power and authority in Rio.

In Chapter 5, the final chapter of Part II, Omar Jabary Salamanca presents a forceful analysis of the ways in which infrastructural violence plays out in Israel/Palestine. Focusing on the construction of Road 443 within the context of a colonial project of settlement expansion and subjugation of Palestinians,

Salamanca offers a nuanced analysis of the messy and contingent processes through which the geopolitical project was materialised through legal/political manoeuvring, while highlighting the geographies of violence and dispossession that it produced throughout its planning, construction and operation. Salamanca offers a valuable intervention within this section, as he carefully highlights the agency of infrastructures in shaping urban socio-spatial and socio-political relations as well as showcasing the power of infrastructures over territory, people and politics.

The motivating question behind Part III, on 'Waste, process, infrastructures', is to elaborate how urban waste management infrastructures are produced and managed through everyday practices and discourses. In Chapter 6, Maria Kaika studies how the domestication of water in modern homes through infrastructural networks of water management that make waste water invisible reproduces the notion of home as a place of purification, safety, familiarity and comfort. She argues that in doing so, such infrastructures create anxieties around moments of failure, rupture and crisis. By emphasising the discursive production of domesticated water infrastructures as discontinuous, Kaika's chapter calls for political and social action to disrupt such a production of the uncanny.

In a different vein, presenting a vivid account of lived experiences of waste infrastructures, in Chapter 7, Stephanie Terreni Brown unravels the politics of sanitation infrastructures in Namuwongo, a slum settlement in Kampala. Brown argues that toileting practices such as defecating and urinating in buckets or bottles or using 'flying toilets' are necessary acts of survival in a settlement that lacks adequate sanitation infrastructure. Yet, such practices discursively produce an image of Namuwongo as an uncivil place whose residents lack the required sensibilities to use (and deserve) public toilets. Such discourses are strengthened when residents reject sanitation solutions proposed by NGOs that discount local sensitivities to practices of defecation instead of working along the logic of current forms of toileting.

In Chapter 8, the last chapter of this section, Rob Shaw illuminates the different rhythms, practices and materials that make up waste infrastructures. By highlighting how night-time street cleaning infrastructures (labour, brooms, machines) in Newcastle Upon Tyne interact with litter, vomit and cigarette butts to

qualitatively change litter into waste, Shaw elaborates how infrastructures are productive of waste through an interaction between human and non-human actants which operate through various parts and moments along the process. In doing so, he showcases how socio-material infrastructures are made through very different and often highly contingent rhythms. Overall, the chapters in this section move beyond the intended aims and also provide important insights on how infrastructure is both a material and discursive category, and how such infrastructures have political and governmental capacity.

The final part of the book (Part IV), entitled 'Adjustment and experimentation', structures discussions of how everyday urban lives are affected by and shape infrastructure adjustment and experimentation. Both chapters focus on this through the issue of infrastructural adjustments in light of climate change experimentation. In Chapter 8, Vanesa Castán Broto and Harriet Bulkeley detail how maintenance emerges as a critical factor in integrating the experiment within the socio-technical landscape of T-Zed, a zero carbon gated community in Bangalore. In doing so, the authors are able to unearth the complex processes through which climate change experiments are materialised and lived, how the materials developed and used in such developments are agential and how such experiments discursively reimagine identities of the privileged in the city. By doing so, the authors shed light on the lively nature of infrastructures of climate change experimentation.

Focusing on the macro scale, in Chapter 10, Mike Hodson and Simon Marvin elaborate the governmental relations and processes through which low carbon futures are imagined and prepared for in the UK. By attuning to the material strategies of implementation, and the related re-organisation of the architectures of governing state spaces, the authors highlight how the economic and ecological crisis of energy materialises experiments that are inherently political in nature. Furthermore, they showcase how such experiments are based on techno-economic fetishes and are centred on creating market opportunities for capital, reviewing the public as consumers of such technologies rather than participating citizens in a shared low carbon future.

Overall, this edited volume offers a good understanding of the variable relations between infrastructures, urbanisation and urban life through thematic cases that

cut across a range of issue areas and diverse contexts. The focus on the everyday is especially refreshing, as it helps ground infrastructures as lively, political and experiential processes that are continuously remade in strikingly different ways within and between cities. In offering a variety of contexts though, the edited book perhaps loses some of the sharp focus promised in the introductory chapter. This is because the individual contributions rest on different understandings of infrastructures, and are often not explicitly linked to concepts and debates raised in the introductory chapter. Having said that, the book is thought-provoking and generates further questions and ideas in the reader's mind about what infrastructures mean and how they intersect with urban lives. For this reason, *Infrastructural Lives* is an inspirational and highly relevant publication for scholars interested in studying infrastructures through the lens of everyday urbanism, contingency and uncertainty.