Geoforum 79 (2017) 46–57

Contents lists available at ScienceDirect

Geoforum

journal homepage: www.elsevier.com/locate/geoforum

(Un)bundling Bangalore: Infrastructure bundling 'best practices' and assembling novel scapes

David Sadoway [a,*], Govind Gopakumar [b]

[a] Nanyang Technological University, Division of Sociology, School of Humanities and Social Sciences, HSS-04-36, 14 Nanyang Drive, Singapore 637332, Republic of Singapore
[b] Concordia University, Centre for Engineering in Society, Faculty of Engineering and Computer Science, 1455 De Maissonneuve Boulevard West, EV2.139. Montréal, Québec H3G1M8, Canada

ARTICLE INFO

Article history:
Received 18 November 2014
Received in revised form 26 November 2016
Accepted 12 December 2016

Keywords:
Urban infrastructure
Assemblage urbanism
Infrastructure bundling
Best practices
Bangalore/Bengaluru
India

ABSTRACT

This paper focuses on the socio-material, political and spatial implications of urban infrastructure bundling practices. Our work examines how network bundling best practices piloted in the Indian city of Bangalore (Bengaluru) have been deployed as a policy model for urban road re-engineering. Drawing on work in actor-network theory (ANT)-inspired assemblage urbanism and policy mobilities, we examine the assembling of Bengaluru's Vittal Mallya (VM) Road in conjunction with Tender-SURE (Tender Specifications for Urban Road Execution) as showcase projects for bundled network infrastructures. Our paper introduces an 'infrastructurescape' typology – boundaries, intersections, cul-de-sacs and peopling – as an analytic for examining the socio-material and spatio-political implications of bundling. Our findings discuss the rise of powerful local infrastructure coalitions of private and civic interests in Bengaluru. Besides the low accountability of these coalitions, we identify the potential problematic effects of infrastructure bundling including: spatial exclusions and fragmentation; the valorization of commercial space and automobility; and the limited participation of wider publics in shaping urban infrastructural futures. Bundling urban networks and setting local urban infrastructural priorities, we suggest, represent politically-charged processes that reconfigure specific city streets and scapes. Infrastructure bundling practices have important implications for the city-at-large and the city-region of the future in India and beyond.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Ongoing concerns about road congestion in Bangalore (herein Bengaluru) has led to calls for better network integration or 'bundling' practices in this sprawling, fast-growing south Indian urban-region (Times of India, 2015). Understanding the socio-material politics of street re-engineering and infrastructure bundling efforts, as well as how these practices are reshaping the city's scapes – public spaces and streetscapes – is of central interest in our paper. Our work focuses on the case of how bundling 'best practices' along one particular Bengaluru street has been deployed as a raison d'etre for infrastructure reforms and a policy model for urban streetscape re-engineering.

We situate our study of infrastructure bundling in the context of a rapidly transforming Bengaluru urban-region. Bengaluru's population nearly trebled over a three-decade period – from 2.92 million residents in 1981, to 8.5 million in 2011 (Census of India, 2011; Reddy and Balachandra, 2012: 154) and its administrative area has steadily expanded outward from 225 to 800 square kilometers (Deccan Herald, 2014). At the same time the city's private vehicle ownership has outpaced population growth – with a nearly twelve-fold increase from 180,000 vehicles in 1981, to 2.23 million in 2005 – giving Bengaluru the notoriety of having the highest private vehicle density in India (Reddy and Balachandra, 2012). Recent data by Karnataka's Road Transportation Office identified 6.21 million total registered vehicles in the city (Government of Karnataka, 2016). This rapid population and vehicular growth is illustrative of why there has been intense interest in devising what are thought of as efficient networked infrastructures, particularly along public roads in Bengaluru.

Our case study is about the consequences of a street-based infrastructure bundling experiment on the city's Vittal Mallya (VM) Road. Started in 2009 by civic and commercial advocates, the VM Road project devised a set of network bundling standards known as Tender Specifications for Urban Road Execution – or 'Tender-SURE'. The Tender-SURE standards were touted as

* Corresponding author.
E-mail addresses: dsadoway@ntu.edu.sg (D. Sadoway), govind.gopakumar@concordia.ca (G. Gopakumar).

http://dx.doi.org/10.1016/j.geoforum.2016.12.006
0016-7185/© 2016 Elsevier Ltd. All rights reserved.

'world-class' best practices for urban street engineering and design in Bengaluru and a model for other Indian cities (Times of India, 2015; Bangalore Mirror, 9 Aug., 2016). In this paper we ask: what practices and agency are being exercised in the act of infrastructure bundling? How are infrastructural 'best practices' being inserted into and reconfiguring urban scapes? And what imaginaries are being invoked in the assembling of infrastructural best practices? Such questions are linked to our overall interest in understanding the spatio-political processes at play in infrastructure bundling.

2. Assembling infrastructurescapes

In this paper we introduce a distinct analytical framework – what we term an 'infrastructurescape' approach – to unpack the politico-material consequences of bundling infrastructures and practices in public streets. We do this by deploying 'assemblage urbanism' research (Farias and Bender, 2012; McFarlane, 2011). Assemblage urbanism is anchored within the actor-network theory (ANT) ontological stance where material 'things' or 'artefacts' are shaped by and shaping of a constellation of socio-political forces (Latour, 2005). Latour (2005) underscores the importance of how to make technological 'things' public in his focus on 'dingpolitik', or the assembly and politics of material matters. Similarly, Rubio and Fogue (2013: 1038) suggest that urban 'infrastructure planning and provision' represent sites of intensive 'public political debate and contestation.' Assemblage urbanism trains the researcher's eye to focus on urban infrastructure in order to unravel its political constitution. Our approach at (re)examining seemingly everyday urban infrastructures and their entanglements with city politics draws insights from studies of infrastructures in India (Coelho, 2006; Ranganathan, 2015); and beyond (Easterling, 2014).

Assemblage urbanism treats infrastructure as a complex evolving artifact 'heterogeneously engineered by a range of competing actors and institutions' (Coutard and Guy, 2007: 717). According to McFarlane (2011: 206), an assemblage perspective views city-regions as socio-material objects of analysis with an interest 'in emergence and process, and in multiple temporalities and possibilities.' Our work is especially concerned with two aspects of infrastructure assemblage. First, how choices about physical infrastructure bundling are reconfiguring urban scapes; and second, how network bundling is materializing as so-called 'world class' best practices. Relying on assemblage urbanism to unblackbox urban projects, we are interested in grounded approaches that can help in examining infrastructure bundling as an urban 'public problem' (Bijsterveld, 2008), especially since network integration along VM Road involves private and civic intermediaries along with public agencies.

While assemblage urbanism has been accused of downplaying power or political inequalities in urban social life (Brenner et al., 2011), we posit that this approach can serve as a theory-frame for scrutinizing socio-material practices in fast-changing urban sites. Karvonen and Van Heur (2014: 380) characterize this approach as '[urging] us to make a closer, more detailed examination of what is actually happening on the ground.' Our work also augments assemblage urbanism studies in India (Harris, 2013; Wissink, 2013; Graham et al., 2015) by bringing a street-based orientation to studies of cities otherwise dominated by bird's-eye perspectives of infrastructures. Along the same vein, instead of seeing roads as material vectors, we treat them as peopled scapes, sites replete with informal life and day-to-day resistances (e.g. Edensor, 1998; Gambetta and Bandopadhyah, 2012; Saldanha, 2012; Gandhi, 2015). Our study highlights what we call the 'peopling of urban infrastructures' or what Simone (2004) terms 'people as infrastructure'; and what Graham and McFarlane (2015) refer to as 'infrastructural lives', where citizens exercise political agency in assembling urban infrastructures (also see: Benjamin, 2008; McFarlane, 2011: 215). We, thus, employ an assemblage urbanism perspective to provide critical insights into the politics and power undergirding infrastructure provisioning and its governance as it is revealed through everyday operations in a peopled landscape. This approach seeks to scrutinize another dimension of what Amin (2013) and other scholars identify as serious service provision asymmetries between the rich and poor within and between India's fast changing cities.

2.1. Bundling and assembling 'best practices'

Our interest in Bengaluru is in studying how and why infrastructure bundling best practices are being packaged, role modelled and mobilized, along the lines of what Peck and Theodore (2010: 170, 172) refer to as: 'making models' and 'preferred forms of best practices'. As a critical Indian and global information communication technology hub, urban development practices and policy aspirations in Bengaluru have been closely linked to the speculative intent of property markets (Goldman, 2011; Halbert and Rouanet, 2014). The demand for efficient, bundled infrastructures therefore needs to be understood as part of Bengaluru's branding as a global high tech nexus. Such policy aspirations also need to be located in relation to the ongoing socio-economic and ecological fragmentation that is typically hidden from the marketing of the city-region as India's 'Silicon City' (Dittrich, 2007; Ranganathan, 2015).

As we noted earlier, an assemblage approach can serve to highlight the role of practices, plans and projects in (re)shaping urban spaces or scapes (McFarlane, 2011: 218). We propose that 'best practices' manifest as significant shapers of urban space by embedding and circulating standards that are often inappropriate or inadequate to local norms. For example, Vettoretto (2009: 1067) suggests that practice repertoires play a critical role, not only in regulating, standardizing and measuring performance, but also in serving as a type of creeping Europeanization process. Along the same lines, Zaring's (2006: 294) legal analysis of best practices raises serious questions not only about their origins and packaging as *best* practices, but even their actual merits. Another instance includes the streetscape practices advocated by the 'complete streets' movement – led by developers, designers and infrastructure specialists. The complete streets movement involves assembling practices that focus on 'physical infrastructure, funding structures and policies about streets' (Slotterback and Zerger, 2013: 47), but at the cost of sidelining local cultural-political contexts or ignoring local infrastructural priorities and injustices (Zavestoski and Agyeman, 2015). Echoing this, Bulkeley (2006: 1029) highlights how the transference of urban best practices and policy models represents both a 'political rationality' and a 'governmental technology.' She identifies how 'claims for general applicability' of practices often ignores distinct local urban contexts (Bulkeley, 2006: 1029). Indeed, Stead (2012: 103) suggests that 'the identification and dissemination of best practices has become a growing industry' in Europe that brings consultants, business and government officials in mobilizing best practices from place-to-place. This resonates with lines of inquiry prevalent in the scholarship on policy mobilities and inter-referencing, particularly in cities of the Global South (Bunnell and Das, 2010; McCann and Ward, 2011; Roy and Ong, 2011).

2.2. An infrastructurescapes approach

As the name implies, the concept of 'infrastructurescapes' embodies a perspectival approach to visualizing the power of infrastructural insertions into urban spaces. Besides the fluidity

Download English Version:

https://daneshyari.com/en/article/5073407

Download Persian Version:

https://daneshyari.com/article/5073407

Daneshyari.com