

Collecting and Disseminating Knowledge on the Architecture of the Metacity

Urbanisation
1(1) 13–18
© 2016 Indian Institute for
Human Settlements
SAGE Publications
sagepub.in/home.nav
DOI: 10.1177/2455747116640431
<http://urb.sagepub.com>



Brian McGrath¹

For the launch issue of *Urbanisation*, I offer a brief perspective on the importance of the analytical, cultural and empirical framework of architecture in understanding and shaping the new forms of urbanisation that have emerged in the twenty-first century. In his seminal book *The Architecture of the City*, Aldo Rossi made a compelling argument for the unique role provided by the disciplinary lens of architecture in making legible the collective social base within the historical patterns of urban form. Rossi (1982) looked before and beyond the formation of a narrow professional field and wrote of an architecture of not buildings in the city. Architecture as a field of knowledge goes well beyond the profession of designing individual buildings. The architecture of a city lies in the shared cultural values that shape and can be read in urban form. While Rossi's text drew from an urge to understand how to reconstruct the post-World War II historical European city in ruins, the tradition of using the disciplinary lens of architecture to help 'read' the dispersed form of late twentieth century American car-based urbanism was employed by Reyner Banham in Los Angeles, Robert Venturi, Denise Scott Brown and Stephen Izenhour in Las Vegas, and Albert Pope in Houston. Rem Koolhaas' study of Manhattan, and more recently, Momoyo Kaijima, Junzo Kuroda and Yoshiharu Sukamoto (2006) test a similar architectural method to read the origins of technological wonders of metropolitan New York and the layered complexity of contemporary Tokyo.

The range of applications of architecture broadly conceived as urban method instead of only as building practice can be seen in the wide range of theoretical texts mentioned above. Rossi's 'architecture of the city' displaced the dominating role of state-employed, modernist, post-war architect with the shared collective memory and cultural values of a locally based civil society. On the other hand, Banham (1971) exalted the dramatic geography of Southern California as determining the experimental architecture of Los Angeles 'four ecologies'. Venturi, Brown and Izenhour (1972) identified the commercial forces elaborated along the American strip, where the billboards and electronic signs are the architecture and the buildings are symbols and signs. Kaijima, Kuroda and Sukamoto identified an architecture that is formed from a calculus derived from the intensity of real estate and infrastructure pressures in the hyper-dense Asian city (Pope, 2006). Pope presented the evolution of the open American grid system to the closed ladder system of cul-de-sacs and gated communities (Kaijima, Kuroda & Sukamoto, 2006).

¹ The New School, New York, NY, USA.

Corresponding author:

Brian McGrath, The New School, 66 West 12th Street, New York, NY 10011, USA.
E-mail: mcgrath@newschool.edu

All, aside from Koolhaas, situated the architect as the interpreter rather than the shaper of the urban landscape, yet it is Koolhaas' (1978) nostalgic figure of the metropolitan, Jazz Age, Manhattan-based architect who has dominated the image of the contemporary, gilded-age city.

Architecture has most often been in the service of power, whether princely, religious, state authority, or today dictated by finance and real estate. Rossi's theory is a radical reversal that calls for another model of a public architecture *of* and *for* the commons. The architecture of the city provides a way to understand informal urbanisation, where, as Rao (2012) showed, the tools of the metropolitan architect have little value. The journal *Urbanisation* is positioned to be a forum for architectural analyses across a wide range of urban histories and geographies in the global south. A common archive can be mobilised as a means to identify the multiple social processes and cultural values that play out in the diverse range of developing cities by reading the architecture of the urban form of the twenty-first century. This archive is necessary to achieve sustainable urbanisation in the future, not as an aesthetic exercise in the service of abstract development goals but as an extension of our common cultural legacy.

Of primary importance for the international audience of *Urbanisation* is the identification of the *metacity* emerging out of the collapse of the colonial metropolitan and Cold War megalopolitan systems. While Rossi defined the architecture of the pre-modern bio-power of Italian city-states, there is also a metropolitan architecture associated with the coal and steam-powered colonial world of European hegemony from the sixteenth to twentieth centuries, as well as an urban form of the oil economy of the late twentieth century Cold War. The European colonial hegemony created a system of centres and peripheries, clearly defined urban and rural space and peoples. This urban form, most notable in Haussmann's Paris and Cerda's Barcelona, conveys the legibility of power in the physical ordering of the city, and a burial and removal of water, energy and transportation infrastructure. As a global system, metropolitan architecture is based on natural resource extraction, low labour places of production and redirection of waste to areas outside of real estate value for residence, leisure and consumption for the bourgeoisie. After World War II, geographers, historians and reporters recognised new urban forms not yet recognised by architects. French geographer Jean Gottman (1961) identified the conurbation along the north-east coast of North America as a megalopolis. The end of the Cold War, rise of first the East Asian Tiger Economies and later India and China constituted a new global system of flows of multiple centres of extraction, production, consumption and waste management, and the huge migration of rural people to cities. The globe has become a complex field of metabolic atop a still extant metropolitan system of centres and peripheries.

Gottman did not witness the subsequent results this new exurban extension would have on most of the urban centres of the region that was unleashed after the introduction of fiber optic networks and computer terminals to the floor of the New York Stock Exchange in 1981. Ronald Reagan moved into the White House that year, at the time a new era of municipal governance in post-financial default New York City, where city governance became more about the service of attracting economic development in the centre of the city rather than providing a broad range of social services to city residents. Two frontiers appeared at the time, Joel Garreau's *Edge City* (1980) and Neil Smith's *Revanchavist Urbanism* (1996). William Cronin's revisionist history of Chicago as *Nature's Metropolis* (1991) and Matthew Gandy's of New York City's 'reworking' of nature (2000) offered a regional metabolic picture of the infrastructure and natural resources as part of an integrated urban territory.

The journal *Urbanisation* should take on these key areas of research through theoretical framing, detailed case studies and critical historical reflections on the architecture of the metacity as it appears in these multiple contexts and scales worldwide. To read the city of the present, it must be disentangled from the urban forms of the past. While the theories above looked at existing models of urbanisation as a smooth process, in my career, I have instead focused on how cities adapt and change over time, shifting

from one urban model, ecology and metabolism to another. Architecture is the medium in which urban change can be most evident, as the fixed capital of the physical city changes more slowly than the social and technological changes that continually come with modernity. I have been engaged in an analysis of urban adaptation and change since I first arrived in New York City as an architect and urbanist in 1978, in comparison to Rome from 1985 and Bangkok since 1995. I arrived with all the analogue tools of architecture in the same month that the New York Stock Exchange threw out all its desks and went from paper to online trading in June 1981. I had a front row seat to the effect of this harsh transformation on the lives of city residents, as well as the economic improvements in the city's environment over three decades. While an architectural reading of urban transformation is inadequate in itself, it points to the spatial logics of politics and capital. In my first book *Transparent Cities*, and in the online publication *Manhattan Timeformations*, I took a stratigraphic approach of separating three urban models, ecologies and metabolisms in Manhattan since its founding: the city, the metropolis and the megalopolis (<http://www.skyscraper.org/timeformations/intro.html>).

This transformation of New York has continued beyond the megalopolitan era to one that has been shaped following the arrival of electronic trading at Wall Street, and the smart phone everywhere. Comparing New York to Rome and later Bangkok, these three cities provide a basis to analyse the architecture of metacity in relation to the specific inheritance of any urban settlement anywhere and of any size. Rome reveals the slow metabolic process of a city transforming from the centre of an empire to a small riverside medieval settlement and re-emerging as a sprawling capital of both global Christianity and the modern Italian nation state over 2000 years. New York transformed in a century from an industrial port metropolis to the centre of global finance. Bangkok, on the other hand, over a few decades transformed from a reconstructed sacred feudal capital to a sprawling megacity. The architecture of the city, metropolis, megacity, megalopolis and metacity can be traced anywhere, but these historical conditions have occurred a-synchronously and unevenly across the globe.

My interest in Rome came from the physical presence of a subsistence economy atop a post-imperial urban landscape. The medieval city was marked by the presence of the countryside in a city that became self-sufficient following the collapse of imperial water and food supply infrastructure. The city was divided into an inhabited area by the flood zone at the bend of the Tiber River, and a vast uninhabited zone within the Aurelian walls, that in fact was populated by Christian monasteries and convents and food production (McGrath, 2008). During the Renaissance, as aqueducts were repaired and new roads were built, the whole city within the walls became inhabitable again. The architectural plan of the Renaissance popes was to integrate the Christian monuments, which like the religion itself were at the periphery of pagan Rome. Additionally, the popes and cardinals built sumptuous villas within and outside the city walls, marking an urban presence in the countryside. With the unification of Italy in the late nineteenth century, Rome became its capital city, and has undergone a vast modern expansion. First was the conversion to a semi-modern European metropolis, constructed within the layers of the city's history; and following World War II, with the large migration from rural to urban, the city took on characteristics of a megacity in the informal nature of much of the new settlement if not in scale.

New Amsterdam and New York before the nineteenth century were peripheral colonial outposts based on a metabolism of horse- and wind-powered movement systems around local food production and surplus trades in natural commodities such as oysters and beavers. Shortly following the independence of the US and Fulton's transformation to steam-powered shipping, the city transformed into an industrial metropolis based on the value added transformation of natural resources shipped by rail from the US Mid-west or South and turned into commodities to be traded across the Atlantic. However, the bankers, insurers and real estate speculators who positioned themselves in towers along Wall Street, extracted the

greatest wealth from the city's logistical position in the Atlantic trade. The port, piers, street grid, train networks, subways and iconic skyscrapers defined New York as the quintessential industrial coal- and steam-based metropolis. Beginning in the last quarter of the twentieth century, computers and the Internet transformed New York into a global financial hub, and Bloomberg's smart city of 311 call system, micro-zoning and pedestrian plaza and bike ways will soon be enhanced with a fast public Wi-Fi network replacing Superman's phone booths.

Bangkok is the common, vernacular name for the city of Krung Thep Maha Nakorn, the magnificent city of angels, constructed by the Chakri Dynasty following the destruction of the ancient capital of Ayutthaya. As an eighteenth century reincarnation of an ancient urban legacy, Bangkok can be traced back to the Siamese ascendancy over the Khmer. The new capital was also positioned within the modern European metropolitan trading system and it overlaid a rudimentary metropolitan structure based on European and colonial models. With its sacred Indic cosmology and its history of international trade, first within the Chinese imperial tributary trading system and later with the southern Chinese Diaspora, Bangkok has been both looking back to an intercity system and forward to an emerging metropolitan one since its founding. The primacy of Bangkok within the nation state of Thailand, within the post-World War II Cold War system produced a rapidly expanding megacity before a metropolitan infrastructure could be in place. Today, the city balances global allegiances while its central position at the centre of the new Association of Southeast Asian Nations (ASEAN) Economic Community promises to fulfil the grand destiny of its royal name. Yet, Bangkok still is marked by persistent informal settlements, such as Khlong Thoei, the city's vast grey market vending community and an unsettled polity.

The term metacity was introduced by the UN to describe urban places bigger than the megacity. Rather than defining the size of megacities and metacities, an architectural reading identifies them as urban ecologies and metabolisms. The megacity is a return to a bio-powered city of self-initiated urban form, local resource gathering, recycling and re-use. The metacity extends and formalises the megacity model, ecology and metabolism with new communication and social media tools. The metacity delineates new lines of enquiry, concerns and modes of practice that must be engaged today. In my own work, I continue by identifying emerging urban forms of the metacity in relation to the historical legacy of the US Northeast coast megalopolis, specifically with the Baltimore Ecosystem Study, in water-based Southeast Asian urban matrix beyond Bangkok and in a multi-year research project studying the 'città diffusa' of the Veneto Region of Italy with the Institute of Architecture and Urbanism at the University of Venice. A close reading of Rome, New York and Bangkok reveals the interplay of urban models: city, metropolis, megalopolis, megacity and newly emerging metacity. Each model has its own logic and form, as well as a social contract, technological input, environmental system and its own rate of change.

Together with David Graeme Shane and Steward Pickett, I have identified the metacity as a form of urbanisation that has been the by-product of the twenty-first century's digitally enhanced financial globalisation, but always subject to historical contingencies on the ground (McGrath & Pickett, 2011; McGrath & Shane, 2012). It is important therefore to 'read' the architecture of these new urban forms in relation to both the further densification and centralisation of historical 'global cities' through the concentration of financial capital and international real estate markets in specialised cities, but also and in the vast 'città diffusa' of the urban-rural mix. This diffuse city was first identified by Francesco Indovina (1990) in the Veneto region of Italy outside of Venice and Terrance McGee's (1991) model of an Asian rural-urban mix identified as 'desakota' and has been carried forward by Robert Bruegmann's (2005) analysis of the North American sprawl. Together these two transformations of densification and dispersal define a distributed urban-rural ecological gradient as defined by Pickett and McDonnell (1990), or a nature-culture continuum by philosopher Brian Massumi (2002). As a result, the *ecology* of the city may be joining architecture as a broadly understood cultural norm.

Each urban model has its own cast of actors and agents with greater or lesser control over shaping the architecture of city, whether urban, suburban or exurban. Each has its own forms of representation, legibility and mediation. Most importantly, each urban model comes with an ecological metabolism. While metropolitan architecture ensured the disappearance of this metabolic muck under its architectural veneer, the architecture of the metacity demands its exposure. It is in this social, environmental and economic negotiation that architecture meets the politics and ethos of the metacity. The architecture of the metacity implies a reckoning with comparisons, interrelationships and impacts between these places worldwide and an engagement with the ecology of the metacity (Pickett, McGrath & Cadenasso, 2013). Stratigraphic case studies of the architecture of this global metacity will also stand as a test for us—to look back periodically at these questions and critically examine the body of knowledge we have been able to produce and curate towards answering them.

One unfortunate result of the so-called Bilbao effect is that architecture has come to be thought of as extraordinary and extravagant singular buildings, rather than as a shared social understanding of the structure and meaning of a common urban environment. *The Architecture of the Metacity* is a call for a global discussion on the vast knowledge base within our urban inheritance, a critical evaluation of the patterns of twenty-first century global urbanisation and a strong social movement towards creating beautiful, equitable and sustainable cities in the future. Rossi's term speaks of architecture *of* the city includes the countless anonymous acts of imagination, construction, alteration and adaptation that continually occur in the city, which has been echoed in Steward T.A. Pickett's (1997) call, three decades after Rossi's, for an ecology *of* rather than *in* the city. Certainly to undertake that challenge, ecologists, as well as all urban disciplines need to engage in a much deeper understanding of architecture and the built environment.

Urbanisation is positioned to utilise architecture's rich disciplinary lens and methodology to embed them in the social practices of urbanisation legible, knowable and transferable, especially given its post-metropolitan point of view from the global south. Three social movements dominate the emerging metacity: occupation, gentrification and sprawl, which together give us the first indicators of the regional imprint of the architecture of the metacity. The architecture of the metacity presents particular opportunities and challenges as Asian cities offer an urban history deeper than Europe at greater scales and densities, developing at a unique pace in the history of urbanisation. But the search for a socially just and environmentally sustainable city will not be possible without well designed cities, neighbourhoods, institutions, housing and public spaces. An expanded notion of architecture needs to be understood beyond the modern profession of a common and universal human art is the key to our urban future.

References

- Banham, R. (1971). *Los Angeles: The architecture of four ecologies*. New York: Harper & Row.
- Bruegmann, R. (2005). *Sprawl: A compact history*. Chicago: University of Chicago Press.
- Cronin, W. (1991). *Nature's metropolis: Chicago and the great West*. New York: W.W. Norton & Company.
- Gandy, M. (2000). *Concrete and clay: Reworking nature in New York City*. Cambridge, MA: MIT Press.
- Gottmann, J. (1961). *Megalopolis: The urbanized northeastern seaboard of the United States*. Cambridge: MIT Press.
- Indovina, F. (1990). *La città diffusa*. Venezia: 'Quaderno Daest' n. 1, IUAV.
- Kaijima, M., Kuroda, J., & Sukamoto, Y. (2006). *Made in Tokyo*. Tokyo: Kajima Institute Publishing Co.
- Koolhaas, R. (1978). *Delirious New York: A retroactive manifesto for Manhattan*. New York: Oxford University Press.
- Massumi, B. (2002). *Parables of the virtual: Movement, affect, sensation*. Durham: Duke University Press.
- McDonnell, M.J., & Pickett, S.T.A. (1990). Ecosystem structure and function along urban-rural gradients. *Ecology*, 71(4), 1232–1237.

- McGee, T.G. (1991). The emergence of desakota regions in Asia: Expanding a hypothesis. In N. Ginsburg, B. Koppel & T.G. McGee (Eds), *The extended metropolis: Settlement transition in Asia* (pp. 3–25). Honolulu: University of Hawaii Press.
- McGrath, B. (2008). *Digital modelling for urban design*. London: John Wiley & Sons.
- McGrath, B., & Pickett, S.T.A. (2011). The metacity: A conceptual framework for integrating ecology and urban design. *Challenges*, 2(4), 55–72.
- McGrath, B., & Shane D. G. (2012). Metropolis, megalopolis, metacity. In E. Greig Crysler, S. Cairns & H. Heynen (Eds), *The SAGE handbook of architectural theory* (pp. 641–656). London: SAGE Publications.
- Pickett, S.T.A., Buch, W.R., Jr., Dalton, S.D., & Foresman, T.W. (1997). Integrated urban ecosystem research. *Urban Ecosystem*, 1(4), 183–184.
- Pickett, S.T.A., McGrath, B., & Cadenasso, M.L. (2013). The ecology of the metacity: Shaping the dynamic, patchy, networked and adaptive cities of the future. In S.T.A. Pickett, M.L. Cadenasso & B. McGrath (Eds), *Resilience in ecology and urban design*. Dordrecht: Springer.
- Pope, A. (1996). *Ladders*. Houston: Rice University School of Architecture.
- Rao, V. (2012). Slum as theory: Megacities and urban models. In E. Greig Crysler, S. Cairns & H. Heynen (Eds), *The Sage handbook of architectural theory* (pp. 671–686). London: SAGE Publications.
- Rossi, A. (1982). *The architecture of the city* (D. Ghirardo & J. Ockman, Trans.). Cambridge: The MIT Press.
- Venturi, R., Brown, D. S., & Izenour, S. (1972). *Learning from Las Vegas*. Cambridge: The MIT Press.