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Call for Papers: special issue

Urban Expansion

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Deadline for abstract submission: 03 DECEMBER 2021

How can urban expansion be undertaken more sustainably, how can expansion be contained and appropriate strategies created for rapid and modest urban growth?

This special issue explores the quantitative and qualitative dimensions of urban expansion; when, where and how expansion can and should be contained; and when, where, and how it can and should be managed in an orderly, inclusive, and sustainable manner. When cities grow in population, economic output and cultural amenities, they need more physical space. Such space can be created through densification (the focus of a recent *B&C* special issue <https://bit.ly/3rEiBXo>) and/or by expanding their footprints into the rural periphery. Urban expansion in geographic space is often ill-defined and its measurement and projection into the future are controversial. 'Sprawl' is detrimental to the surrounding countryside, costly in terms of infrastructure, excessive waste in energy and resources, and increased GHG emissions. But the regulatory containment of urban expansion is problematic as it can result in land and house price inflation, making cities less affordable. The speed of urban expansion has consistently been underestimated especially in the Global South where expansions occur in a disorderly and unplanned manner with negative consequences for inhabitants.

Aims

This special issue explores whether and where preparing for urban expansion is appropriate; how urban expansion can be undertaken more sustainably; how and where expansion needs to be contained; what are the appropriate strategies for balancing densification and expansion; and how the appropriate expansion strategies can be effectively implemented. Critical analyses of experiences in planning and managing both urban containment and orderly urban expansion are sought that draw pragmatic lessons, for both slow and rapidly growing cities. Such analyses must embrace the many challenges in planning for projected urban expansion in the face of regulatory limitations, local resistance, climate change (e.g. flooding, sea level rise, and mudslides), fiscal and financial constraints, and persistent rural-urban migration.

Research, synthesis, policy analysis and methods papers on urban expansion are sought in four complementary areas:

- (1) The quantitative measurement of urban expansion:** The definition, measurement, and projection of urban expansion at the municipal, metropolitan, national, and global scale.
- (2) Explanatory models of urban expansion:** Modeling and explaining the policy and non-policy (economic, social, and cultural) drivers and consequences of urban expansion and of the share of the added populations of cities accommodated by urban expansion vs. urban densification.
- (3) The containment of urban expansion:** Analyses and evaluation of policies that seek to contain urban expansion, evaluations of concrete experiences in containing or slowing down urban expansion, their strengths and limitations, and their utility and appropriateness in cities with varying population growth rates.
- (4) Preparing for orderly urban expansion:** Analysis and evaluation of policies for urban expansion. Critical evaluations of concrete experiences of planned urban expansion. Short-, middle-, and long-range planning for urban expansion.

Background

- (1) **The quantitative measurement of urban expansion:** The definition and global measurement of urban extents and their expansion over time—essentially using aerial and satellite imagery—is developing rapidly but is still far from reaching consensus on either definitions or measurement methods and hence on the resulting numbers as well. Angel *et al* (2021), for example, found that a global stratified sample of 200 cities was not able to accommodate more than 25% of the population added to these cities between 1990 - 2014. The rest were accommodated in expansion areas on the urban periphery. Lall *et al* (2021) challenge these estimates and claim that urban expansion is occurring at a much slower rate.
- (2) **Explanatory models of urban expansion:** Models that seek to explain variations in the rate of expansion of cities (e.g. Seto *et al*, 2012) typically focus on population, income, and transport cost effects, but rarely incorporate the weaker policy and regulatory effects and are therefore have limited utility in guiding policy. In parallel, the effects of “business as usual” urban expansion on desirable socio-economic outcomes (Ahfeldt and Pietrostefani, 2018), the use of material resources (Hodson *et al*, 2012), and climate change (Lee and Lee, 2014) have also been the subject of econometric modelling, with improving, but still weak results. A scientific consensus appears quite far away.
- 3) **The containment of urban expansion:** The Compact City Paradigm, calling an end to urban sprawl, has been the accepted urban planning doctrine for decades (Burton, 2001 and OECD, 2018), and it is certainly controversial. Hall (1974) documented the severe house price inflation that followed the introduction of green belts in England and South Korea. Others have documented the failure of containment to halt or slow down outward expansion in rapidly growing cities. Development beyond the greenbelt also results in longer commutes, as in Seoul (Han, 2015). The questions of when containment is appropriate and effective and how its adverse consequences can be avoided remain lively and unresolved.
- (4) **Preparing for orderly urban expansion:** Urban planners have developed tools, notably master plans, for orderly urban expansion (e.g. Cerda’s 1859 *Ensanche* plan for Barcelona (Urbano, 2015)). But many master plans have remained on paper, while cities have fast ignored or outgrown them and expanded in a disorderly manner. This has been especially critical in rapidly growing cities, where regulatory enforcement of zoning and land use is often weak. Unplanned expansion is typically accompanied by the undersupply of arterial roads for public transport that connects the urban periphery to the urban job market, as well as an undersupply of public open spaces and the unregulated development of areas of high environmental risk. Lamson-Hall *et al* (2018) and Vasconez *et al* (2017) have engaged in assisting municipalities in rapidly growing cities in Colombia and Ethiopia in making effective preparations for their expansion—acquiring the rights-of-way for arterial roads and securing areas of high environmental risk before development arrives. A critical challenge is planning and land acquisition for public works before development actually occurs.

Suggested Topics

Urban population and area growth: Defining ‘urban’ areas and identifying them in satellite imagery and population data; measuring historical urban expansion in cities, countries, and regions; forecasting methods for urban expansion in cities, countries, and regions.

Land use and zoning: Reviews of the state-of-the-art in managing urban expansion; the containment unintended sprawl; successes and failures of green belts and urban growth boundaries; urban expansion and the decline of urban densities; compact and non-compact (leapfrogging) urban footprints; land pooling and readjustment schemes; appropriating land for public uses when land is converted to urban use; safeguarding land for future public use.

Urban economics: The effects of urban containment on housing affordability; the economics of urban expansion; econometric models that explain urban extent and expansion; econometric models that explain the effects of urban expansion on different socio-economic groups; finance and value capture; comparing infrastructure and resource costs of different urban expansion scenarios; assessing the risk of preparing too much or not enough land for urban expansion.

Environmental and climate impacts: the effects of projected urban expansion on material resources, energy flows and GHG emissions; the projected effect of ‘business-as-usual’ urban expansion on GHG emissions; safeguarding and enhancing ecosystem services and environmentally sensitive areas on the urban periphery; avoiding natural hazards (flooding, sea level rise, unstable land, etc.); balancing the loss of arable land to urbanization with maintaining a bio-based economy.

Social and community impacts: The social and cultural effects of the inclusion of peripheral settlements into larger cities; the effects of expansion policies on central city conservation and revival; suburbanization and community.

Transport infrastructure and mobility: Ensuring access to urban job markets on the urban periphery; public transport extension into the urban periphery; provision of (local) public services in expansion areas; creating live-work communities and new towns on the urban periphery.

Governance and implementation: short-, middle- and long-range planning for urban expansion; effective interventions in new informal settlement formation; master plans and their limitations; measures to increase density on the urban

periphery; land value capture for public infrastructure when land is converted to urban use; governance of urban expansion in multi-authority jurisdictions; municipal human resources constraints for managing urban expansion; political resistance to urban expansion; national and local policies that influence urban expansion; the role of multilateral and bilateral organizations in managing urban expansion; rapid urban expansion to accommodate unexpected refugee flows.

Briefing Note for Contributors

You are invited to submit an abstract for a journal paper in this special issue of *Buildings & Cities*. In the first instance, please send a 500 word (maximum) abstract **defining the scope, methods and results** to Richard Lorch richard@rlorch.net by **FRIDAY 3 DECEMBER 2021**. The initial abstract submission must include:

1. The author's and all co-authors' names, affiliations, and contact details
2. The question(s) and topics in this Call for Papers that the abstract and intended paper addresses
3. The abstract (300-500 words maximum) which should include a description of methods and key findings.

Abstracts will be reviewed by the editors to ensure a varied, yet integrated selection of papers.

Authors of accepted abstracts will be invited to submit a full paper which then undergoes a double-blind peer review process. The journal publishes the several different types of papers: research, synthesis, policy analysis, methods, etc. See: <https://bit.ly/3n0mlIz>

Timeline

Deadline for abstract submission	3 December 2021
Full papers due	21 March 2022 (NB: authors can submit sooner if they wish)
Referees' comments	01 June 2022
Final version due	11 July 2022
Publication	September 2022 (NB: papers are published as soon as they are accepted)

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Questions?

If you have a question, please contact: **Richard Lorch** richard@rlorch.net or **Shlomo Angel** sangel@stern.nyu.edu

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