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Call for Papers: special issue

Housing Adaptability

Guest Editors:

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Deadline for abstract submission: 7 June 2021

Over the past 40+ years, the size of urban dwellings has diminished in many Western and Asian countries, resulting in negative impacts on residents' needs and activities (Park, 2019; Tunstall, 2015). At the same time, an increasing range of activities is expected to be performed at home. One set of possible solutions involves increasing the adaptability of spaces within the dwelling. Other solutions may reconsider the relation between domestic privacy and public cohabitation / shared facilities.

Aims

This special issue will explore multiple perspectives for both developed and developing countries:

- concepts of adaptability in housing and their implications across a range of issues, scales (e.g. internal or external rooms, dwellings, building, immediate neighbourhood and city scale)
- the potential for existing and new housing to become more adaptable over time and its implications at different scales and for different stakeholders
- drivers and barriers to implementing housing adaptability, including Open Building lessons (Habraken 1972, Kendall 1999)
- improving the longevity of buildings and the circular economy through adaptability (cf. [ISO 20887:2020](#))
- how residents may overcome unadaptable spaces
- the benefits and unintended consequences that may arise
- what shapes inhabitants' needs, perceptions and expectations for adaptable spaces
- the trade-offs of adaptable designs (e.g. costs, embodied / operational energy, redundant features, smaller units ...)

It will advance the understandings and implementation of housing adaptability. Original research, policy analysis, methods and synthesis papers are sought that investigate, analyse and connect different aspects and/or disciplines of adaptable living environments (i.e. inhabitants, the individual dwelling, the housing block, spaces adjacent to homes and their neighbourhood).

The adaptability of our homes is a social, emotional and cultural issue as much as a technical or construction challenge. This may also require adaptations to land ownership, tenure and (in)formal dwellings to address undersupply or unaffordability. Many different drivers (and approaches) exist, some of which are unfolded below.

Environmental adaptability

The need for increased longevity of buildings has come under scrutiny. Today's homes will still be standing at the end of this century and facing very different climatic conditions (IPCC, 2018). Hence current housing needs to be able to adapt to a future including flooding, hotter weather (Gething, 2013), as well as less predictable events such as spread of disease. Failure to do so jeopardises occupant health and wellbeing with built infrastructure facing premature obsolescence (Kelman, 2020).

Spatial adaptability

The COVID19 pandemic has shown the importance of adaptable living environments to support working, schooling and socialising from home. This reinforced the benefit from accommodating a diversity of uses over the building's lifespan, thereby increasing

spatial adaptability, i.e. a “building’s potential to be physically transformable ... [and provide] versatile usage, or to be multi-usable, often labelled as ‘multi-functionality’ or ‘polyvalence’.” (Pelsmakers et al. 2020; cf Schneider & Till 2005). This implies the capacity to enable different spatial configurations at hourly, daily or weekly intervals, seasonally or even over decades (Pelsmakers et al., 2020). This can involve simple furniture changes, moving walls or the expansion or division of the dwelling (Schmidt et al. 2010, Kendall 1999, Habraken 1972, Saarimaa et al. 2020). Spatial adaptability in housing can support diverse communities and inclusivity where residents can stay in place during their life course (Femenias & Geromel, 2019) (e.g. family expansion/ contraction, illness, ageing, digitalisation of work and tele-commuting, pandemic lockdown etc.). These individual, bespoke adaptations are amplified by wider societal and demographic shifts requiring medium- to long-term adaptability. Yet most metrics or research do not connect with these micro and macro changes, instead relying on historical concepts and ideas of domesticity (Kahn & Sheridan, 1994).

Social adaptability

Greater fluidity of work or study location increases demands on the home environment and how we live (Holliss, 2015). The nuclear family is increasingly supplemented by solo dwellers, multi-generational living, and extended families with fluctuating members over time. The global diversity of societal trends means adaptability is often bounded by context-specific cultural issues. New housing models such as co-housing or collective sharing of amenities, require novel spatial solutions underpinned by **social adaptability**, the negotiated shared responsibilities, rules and trust that makes these new models of living possible.

Multi-use and multiuser adaptability

In many urban areas, there is a rise in the provision of micro dwellings with tight deep-plan single-aspect poorly daylit layouts that limit their flexibility. Combined with reduced access to quality private outdoor space, this effectively transfers some dwelling functions to public spaces, creating new dependencies as cooking and dining, socialising, and leisure move outside the home. This proved problematic during the pandemic when communal spaces had to be closed, confining residents to their insufficient home environments. What are the social, economic and environmental implications of using non-residential spaces more intensively at night or weekends? Such ‘hybrid’ buildings have to negotiate different users, points of entry but co-located activities enable the efficient use of the building stock over the 24-hour cycle (Grant 2002).

Adaptability across scales and disciplines

Typically these different aspects of adaptability are not considered together. A potential longevity paradox arises: e.g. even when a building is designed for environmental adaptability, it will fail if it cannot adapt in response to residents’ needs during its lifespan (Pelsmakers et al, 2020). How can we resolve the compromises of cost, functionality and livability in locations of varied density, size or connectedness, across the variety of housing forms and user needs? To achieve adaptability in practice, how should urban planning and policies functionally interlink with housing design standards, building service systems and even construction methods? Without a comprehensive approach, and overcoming the barriers to achieving it, adaptability simply cannot be achieved in reality.

Papers in this special issue address topics including but not limited to:

Concepts and evidence

- Forensic historical studies investigating adaptations in the housing stock over time and how this can inform the future.
- Identifying historical trends in adaptation and how changing housing typologies shape the nature of domestic activities.
- Adaptable characteristics that contribute to the longevity of housing.
- Evidence about the need, desirability, advantages, disadvantages, drivers and barriers for adaptable living environments now and in the future.
- Different concepts of housing adaptability and the contribution to ‘social infrastructure’,¹ occupants’ health, long-term sustainability and future-proofing of housing stock and how it shapes the nature of domestic activities.
- What are the (environmental, social, societal, financial) costs of providing (and not providing) adaptable housing?
- New housing models (e.g. shared spaces, cohousing, sharing economy, airbnb) and facilitating social adaptability.
- Defining criteria for housing adaptability and tools for assessing it.
- Defining standards e.g. for space (internal, external, storage), daylight, etc. that acknowledge future adaptability.

Policy and governance

- What is the role of policy-makers in creating the conditions for delivering adaptable housing?
- What policy mechanisms (planning, regulations, space standards) are needed to support adaptable housing design?
- What policy shortcomings obstruct flexible housing?
- What current standards prevent or facilitate future adaptability (e.g. building services, daylight, planning use classes, etc.)

Design and construction

- What are the roles of the supply side (clients, developers, urban planners, architects, building service engineers, contractors, estate management, furniture makers, etc) in creating and delivering adaptable housing?
- What barriers within the supply side inhibit adaptable housing? How can these be overcome?
- Co-creation: adapting housing delivery and increasing residents’ personalisation of their homes i.e. self-build / self-finish.

¹ i.e. ‘physical places and organizations that shape the way people interact’ and ‘physical conditions that determine whether social capital develops’ (Klinenberg 2018)

- Design and construction stages being responsive to in-use / post-occupancy flexibility.
- Reconciling potential trade-offs between different adaptability concepts.

Inhabitants

- Demand: what is the value to residents? What economic value is placed on housing flexibility?
- What is the importance to occupants to modify mass housing?
- Analysis of the connection between adaptability concepts and post-occupancy evaluation; how residents adapt their behaviours to accommodate physical housing limitations.

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 **MONDAY 7 JUNE 2021**. The initial abstract submission must include:

1. the author's and all co-author's 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 around the topic of the special issue.

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, & replication, see: <https://bit.ly/3n0mlz>

Timeline

Deadline for abstract submission:	07 June 2021
Full papers due:	04 October 2021
Referees' comments	24 January 2022
Final version due	28 February 2022
Publication	April 2022 (NB: papers are published as soon as they are accepted)

Buildings & Cities journal

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Questions?

If you have a question, please contact:

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