

## The problem of aging housing: A co- and re-design approach

Words by Sandra Karina Löschke and Hazel Easthope

Older apartment blocks represent a significant urban asset, but many no longer suit their current inhabitants.

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Easthope look to Europe, where many redesign projects that involve residents in the process have transformed the quality of apartment living. How might we adopt similar methods of renovation in the Australian context?

Having been built *en masse* across the world since the 1950s, apartment buildings have become the global solution to dense urban living. But many of these buildings no longer meet current environmental, economic and social standards.<sup>1</sup> They are wasteful of energy and have high operational costs, and their outmoded designs and compact spaces fail to meet the needs of an increasingly diverse resident demographic. Unless renewed, older apartment buildings can be expected to decline in economic value and become eyesores that frustrate the aspirations of residents and neighbourhoods.

While many government initiatives focus on upgrading requirements to improve the environmental performance of these buildings and promote technical retrofits to meet current standards, changing residents' needs receive considerably less attention. This is surprising, given we know that the resident profile of apartment buildings can change significantly over time and the residents for whom buildings were originally designed can be quite different to those currently occupying them.

Aging populations and migration are key drivers for these demographic changes, especially in Australia. Many apartment residents are now aging in place and require provisions for physical or mobility-related disability. Of the 2.2 million people currently living in apartments in this country, 15 percent are over 60 years of age, and 4 percent (just over 85,000 people) reported needing assistance

with a core activity.<sup>2</sup> At the same time, new residents with diverse socio-cultural backgrounds and lifestyles move in as a direct result of capital city growth driven by overseas immigration. Notably in Australia, migrants – who make up 56 percent of all apartment residents in the country – are much more likely to live in apartments than other dwellings.<sup>3</sup>

Consequently, many older apartment buildings fail to meet residents' increasingly diverse needs, both physical and sociocultural. This represents a serious problem because it means that apartments do not fulfil their fundamental function as homes – places where people can enjoy autonomy and “feel in control of the environment, free from surveillance, free to be themselves and at ease, in the deepest psychological sense.”<sup>4</sup> Research suggests that for older people, and people with health problems and mobility difficulties more generally, what *detracts* from their homes, in terms of making them healthy and enabling living environments, may be more important than what contributes to them.<sup>5</sup> These detractors include mobility-related issues such as unsafe stairs and lifts, lack of access to sunlight and views, inability to safely use shared spaces such as lobbies and corridors, lack of facilities, and high energy bills. Therefore, alleviating issues that negatively impact on living environments is of crucial importance.

Older buildings can represent a substantial urban asset, especially when they are structurally sound and

located close to amenities and transport. As many building projects in Europe demonstrate, redesign can offer effective solutions beyond mere technical upgrades if residents are given a voice in the process and become participants rather than users.<sup>6,7</sup> These redesign projects can do what demolish-and-rebuild projects cannot: create better housing that achieves high environmental and social impact at low cost (triple-bottom-line benefits).

The Splayed Apartment Blocks in Ommoord, a residential neighbourhood in Rotterdam, Netherlands, provide a good example. Built in 1968, 30 years later, the buildings no longer met current standards and had experienced a significant shift in resident demographic. Many residents who had lived there since the blocks were built were now aging, and younger family households from varied socio-economic backgrounds, with different social codes and needs, had moved in. Each of the four angled slab blocks contained 176 apartments that shared a common entrance, lift system and access corridors; this spatial organization exacerbated friction between residents.

In 1999, the housing association commissioned Hans van der Heijden Architect/Biq to upgrade the building's technical performance and find an architectural solution to the increasingly tense relationships between different resident groups. The architect noted: “The departure of the stable population of pioneers and the influx of new tenants ... might be a completely normal



← Hans van der Heijden/Biq redesigned the Splayed Apartment Blocks in Rotterdam to better accommodate both the occupants who had lived there since the blocks were built in 1968 and those who had moved in more recently. Photograph: Stefan Müller

manifestation of urbanisation, but for older residents it is a threat to their ways – new families parking their children's bicycles on the access gallery is their worst nightmare.”<sup>8</sup>

Hans van der Heijden Architect/ Biq led a consultation process to address the 2,000-plus residents' different, and at times seemingly incompatible, needs in a collaborative manner in order to improve resident relations and convenience. Together, the architect and the residents decided that the best solution was through socio-spatial reprogramming and the addition of improved access features and facilities.

Over a period of nine years, the architect and the residents developed an alternative occupation strategy for the blocks by rethinking the spatial organization of the building concept, redistributing and sectionalizing apartments according to social groups, and providing tailored facilities. (The new facilities were partially financed through the introduction of a right-to-buy scheme whereby tenants were given the opportunity to buy their apartment at a favourable price.) Parts of the development were reserved for older residents: for example, the ground floor garages were reprogrammed as care facilities, and additional garden-facing apartments and a community centre were introduced. Additional stair and lift towers were installed to improve accessibility for upper-level apartments and to shorten the length of access corridors. Prefabricated solutions enabled residents to remain in situ and minimized disruption, cost and stress.

The renovation project successfully upgraded the buildings to meet current standards, and the consultation process resulted in redesign measures that enabled the continued use of the buildings by the resident community. The focus on particular demographics meant that most, though not all, residents could stay in place. The architect recognized that developing customized solutions for, and in collaboration with, residents represents a significant part of the architects' charge. The project also demonstrates the transformative impact that co- and re-design can have on the quality of apartment living.<sup>9</sup>

With apartments accounting for 36.3 percent of households globally,<sup>10</sup> the scenario in Ommoord prior to the Splayed Apartment Blocks redesign is a common one for cities and their residents, including in Australia. Why, then, does most of our mature apartment building stock

remain undeveloped, when we know that co- and re-design can make a powerful contribution toward effective housing solutions? One obstacle is that transforming existing buildings is much more complex than designing new ones – as the lengthy building process at Ommoord indicates. There are three main reasons for this.

First, co- and re-design requires expertise from multiple disciplines and stakeholders, who need to effectively collaborate to deliver on social, environmental and economic objectives and standards. Second, in Australia, the majority of apartment buildings are privately owned by multiple apartment owners who act as the client. This means that redesign projects are initiated and led by laypeople with limited expertise and few effective mechanisms to attain consensus. This can result in lengthy delays and frustrate entire projects, which presents a considerable risk. Third, from a disciplinary perspective, co- and re-design is a new approach that challenges the obsolescence-based, top-down thinking of mainstream architecture, which sees existing building stock as a barrier to progress and the voices of end users and other stakeholders as an impediment to good design.<sup>11</sup>

To facilitate the re- and co-design process and create confidence for architects, residents, owners and other stakeholders, practical guidance is required. We are currently developing this guidance as part of the Australian Research Council project “Co-Design Guide for Transforming Ageing Apartment Buildings,” in partnership with Cox Architecture, the Government Architect NSW, Allen Jack and Cottier, Lannock Strata Finance and Max Build.<sup>12</sup> Our objective is to unlock the potential of old housing stock by making re- and co-design mainstream development approaches, and equipping residents and stakeholders with improved knowledge and a voice in the design process. We believe that this research will be transformational in integrating design with social, environmental and economic aspects across scales – from apartment to neighbourhood.

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#### Footnotes

1. In the European Union, about 35 percent of buildings are more than 50 years old and almost 75 percent of the building stock is energy inefficient, but only about 1 percent of the building stock is renovated each year. (See EU directive: [ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive\\_en](http://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en).)
2. Australian Bureau of Statistics, TableBuilder, 2016 Census Counting Persons, Place of Enumeration, ASSNP Core Activity Need for assistance by STRD Dwelling Structure and TENLLD Tenure and Landlord Type, 2018, [abs.gov.au/websitedbs/censushome.nsf/home/tablebuilder](http://abs.gov.au/websitedbs/censushome.nsf/home/tablebuilder).
3. Australian Bureau of Statistics, “2071.0 – Census of population and housing: Reflecting Australia – Stories from the Census, 2016,” 27 March 2018, [abs.gov.au/ausstats/abs@.nsf/mf/2071.0](http://abs.gov.au/ausstats/abs@.nsf/mf/2071.0).
4. Peter Saunders, *A Nation of Home Owners* (London: Unwin Hyman, 1990), 361.
5. Ade Kearns et al., “‘Beyond four walls’: The psycho-social benefits of home: Evidence from West Central Scotland.” *Housing Studies* vol 15 no 3, 2000, 387–410. doi: 10.1080/02673030050009249.
6. Sandra Karina Löschke and Hazel Easthope, “Postproduced: How adaptive redesign and participatory approaches can transform ageing housing,” in Graham Cairns, Georgios Artopoulos, Kirsten Day (eds), *From Conflict to Inclusion in Housing: Interaction of Communities, Residents and Activists* (London: UCL Press, 2017), 71–86.
7. Sandra Karina Löschke and Hazel Easthope, “Home controls: On the transformative redesign of urban housing,” in Sandra Karina Löschke (ed.), *Non-Standard Architectural Productions: Between Aesthetic Experience and Social Action* (Abingdon, UK: Routledge, 2019), 152–55.
8. Cited in Ellis Woodman, “Post-war estate regeneration: Improvement over replacement,” *Architects' Journal*, 1 July 2015, [architectsjournal.co.uk/buildings/post-war-estate-regeneration-improvement-over-replacement](http://architectsjournal.co.uk/buildings/post-war-estate-regeneration-improvement-over-replacement).
9. For further information, see the architect's website: [hvdha.com/splayed-apartment-blocks](http://hvdha.com/splayed-apartment-blocks).
10. Australian Bureau of Statistics, “2071.0 – Census of population and housing,” 2018.
11. Sandra Karina Löschke and Hazel Easthope, “Rethinking housing solutions: Adaptive redesign approaches for ageing apartment buildings,” paper presented at *AMPS Conference 7: Future Housing: Global Cities and Regional Problems*, Swinburne University of Technology Centre for Design Innovation, Melbourne, 9–10 June 2016.
12. ARC Linkage Project Grant ID LP200100053.