The Missing Middle
increasing the density and diversity of housing in Australia’s suburban cities

Dr Damian Madigan
Senior Lecturer in Architecture
damian.madigan@unisa.edu.au

Dr Alysia Bennett
Lecturer, Department of Architecture
alydia.bennett@monash.edu

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1. Defining the ‘Missing Middle’
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Missing Middle housing

- coined in 2010 by American architect Daniel Parolek;
- sits within the spectrum of the polar extremes of single houses and apartments;
- is low to medium scale and of moderate intensity;
- is often geographically linked with the middle ring suburbs;
- has become increasingly attractive to Australian state governments as a potentially sensitive form of densification.
2. A National Appetite for MM housing

a. New South Wales
   The Missing Middle
   Open Ideas Design Competition, 2016
MISSING MIDDLE

OPEN IDEAS COMPETITION:
Testing the Draft Medium Density Design Guide

Draft Medium Density
Design Guide
Tools for improving the design of medium density residential development
The Missing Middle competition asked the design industry to test government policy in the form of the draft design guide for complying development for medium density housing. The competition demonstrated how application of the draft design guide by skilled designers can support good design results across a range of housing types.

We received an overwhelming response with 111 innovative and creative entries submitted across three medium density housing types:

+ dual occupancy
+ multi-dwelling (terraces) and
+ manor houses.
**DUAL OCCUPANCY**

**WINNER**

**YOUSSOFZAY & HART**

"This proposal shows an approach to housing supply that works with the single home owner, allowing them to develop extra housing within their own block. The existing house stays as it is, while a new contemporary home is squeezed in beside it. Three generations can occupy the block together, providing support through the varied stages of life."

© Youssofzay & Hart

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**MANOR HOUSES**

**WINNER**

**MADIGAN ARCHITECTURE / UNIVERSITY OF SOUTH AUSTRALIA**

"An innovative, practical and ethical idea to make clever additions and alterations to two existing houses that makes four houses from two. The arrangement and variety of housing types within the four houses allows for flexible intergenerational living."

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**TERRACE HOUSES**

**WINNER**

**PLATFORM ARCHITECTS**

"The proposal balances private, shared and public zones throughout the development and creates comfortable and generous dwellings that are applicable to a variety of sites."

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2. A National Appetite for MM housing

b. Queensland
Density and Diversity Done Well
Open Ideas Design Competition, 2017
Shaping SEQ and our regions

There is a strong practical challenge to design new residential forms for neighbourhoods that are more compact, mixed-use, connected and active: Density and Diversity Done Well.

Current housing stock in Queensland is generally single detached dwellings and, until recently, often not well enough designed walk-up apartment blocks.

The purpose of this Competition is to demonstrate that achieving housing choice and higher densities both within SEQ and across the state does not always mean high-rise development. Good practical design is key to this.

The ‘missing middle’ is a term used to describe dwellings that are compatible with surrounding lower density residential environments.

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*Dwellings may be built on separate freehold titled ‘lots’ in a body corporate/community title including common property – ‘lots’ may be vertically or horizontally separated by title*
About the competition

The challenge

The challenge was simple: be a good neighbour and create a good neighbourhood.

Each designer:

- started with a typical neighbourhood block containing 20 dwellings that housed around 60 people in total (three occupants per house on average)
- could choose to retain, raise, move or demolish the existing dwelling or dwellings, and determine building setbacks, parking and open space requirements
- was encouraged to 'break the rules' and think outside the box.

The winning entries cover a wide variety of building types from micro-housing through to compact apartments. They clearly demonstrate the 'missing middle's huge potential for both variety and capacity to house more people in the same place with good amenity.
Queensland’s Department of Housing and Public Works has begun a program to deliver 20 social housing demonstration projects across the state designed by award-winning architects.

The projects are an extension of the Density and Diversity Done Well ideas competition, conducted by the Queensland government in 2017, which sought new housing ideas for types of dwellings described as the “missing middle” – between that of high-rise, high-density living and free-standing suburban house.
2. A National Appetite for MM housing

c. Western Australia
   Hilton Design Competition, 2017
2.1 The Location

Hilton is located approximately five kilometres east of the Fremantle town centre and was originally developed for state housing in the post-war period. Hilton’s design origins are found in the ‘Garden City’ design philosophy, with curvilinear streets and single detached houses situated well back from the street in generous landscape settings.

A number of the original houses that were constructed in Hilton were prefabricated in Austria at the end of World War II or were designed by notable Western Australian architects Krantz and Sheldon, which make a valuable contribution to Hilton’s unique character. However, as these homes do not meet current accessibility standards and require a high level of ongoing maintenance, many older tenants have difficulty in maintaining independence in these homes.

In recent times, Hilton has become a more desirable place to live due to its tree-lined streets, its close proximity to public transport and the range of amenities on offer in nearby Fremantle. Its older homes have become particularly attractive to people interested in mid-century design and the typically large lots are popular for planting edible gardens and harnessing natural resources for power generation.

Unfortunately, the lack of housing diversity combined with the gentrification of the area has contributed to Hilton’s rising unaffordability, making appropriate public housing more important than ever. New, well-designed one or two bedroom homes would be ideal to meet this demand but smaller, accessible dwellings are scarce in Hilton.
3. Rethinking the Allotment
Infill Opportunities Design Research Report Design Strategies
Monash Architecture Studio Monash University November 2011

Shared zone:
The subdivision of allotments comprises an allowance for shared space at a proportion 1:4

Shared zone: centralised carpark in short term

Shared zone: common open space and recreation facilities in long term
Infill Opportunities Design Research Report

**Design Strategies**

Monash Architecture Studio  Monash University  November 2011

- Higher volume (including possible 3rd storey addition) set in middle of lot to reduce overshadowing and overlooking of neighbours.

- Vertical circulation provided in core to allow access to roof terraces or additional upper floors.

- Narrow frontage with minimal street set-back possibility for commercial occupation providing local public amenity (e.g. milk bar).

- Driveway / garden lane with planting and permeable paving.

- Private garden.

- Private roof terrace.

- Shared open space and facilities, providing for communal uses as determined by the cooperative.
4. A DIY Model: an alternative to KDR
STEALTH URBANISM
the covert advance of suburban density and diversity

ALYSIA BENNETT
B.Env.Des M.Arch (hons)

This document is submitted in partial fulfilment of the degree of Doctor of Philosophy at Monash University in 2016.
Faculty of Art, Design and Architecture
Department of Architecture.
Market House
Hotondo Homes

Hidden House, 2013
Bennett and Westbrook
mode 1 _ traditional
flat/garage arrangement offers greater liveability than other aged care models

mode 2 _ living pavilions
quality, economical home for 1-3 people including a range of spaces that are private or inclusive

mode 3 _ studio
an economical dwelling with room for creative ventures

mode 4 _ intergenerational
second living space as communal amenity for all plot occupants

mode 5 _ campus
day time gathering space for U3A teaching within walking distance of trains

mode 6 _ shop
extra function as a shop/cafe by day providing source of income/interaction
Alternative Infill

a design study of housing intensification, adaptation and choice in the established suburbs of Adelaide

Damian Madigan
B. Arch. St. B. Arch. (Hons. 1)

A thesis submitted for the degree of Doctor of Philosophy at Monash University, September 2016

Department of Architecture
5a. Allotment-scale Project - Co-housing for Ageing Well
Co-housing for Ageing Well
A collaborative design research project
Co-housing for Ageing Well
A collaborative design project

Can we undertake allotment redevelopments that see the inappropriately labelled ‘granny flat’ or subordinate ‘accessory dwelling unit’ replaced with new aspirational second or third dwellings that are an integral part of the property and are given the same importance, status and dignity as the existing dwelling already on site?
Co-housing for Ageing Well
A collaborative design project

To date, there has been no detailed study . . . of single allotments with existing housing stock and mature landscape: the suburban setting in which many of us wish to remain for as long as possible. This study will fill that gap and arm decision makers with detailed material with which to make sound decisions about future low-scale housing regeneration options.
5b. Allotment-scale Project - The Rightsize Service
THE RIGHTSIZE SERVICE

CITY OF SYDNEY ALTERNATIVE HOUSING IDEAS CHALLENGE: THE SEARCH FOR INTEGRATED SOCIAL EQUITY

RENOVATE CREATE RIGHTSIZE

Alternative Housing Ideas Challenge
The search for integrated social equity

Brief to be read in conjunction with the Conditions

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City of Sydney Alternative Housing Ideas Challenge Competition Brief, accessed at: https://www.cityofsydney.nsw.gov.au/vision/planning-for-2050/alternative-housing

damian.madigan@unisa.edu.au alysia.bennett@monash.edu @madigan_damian @Alysia_Bennett
The Rightsize Service
City of Sydney Alternative Housing Ideas Challenge

The Rightsize Service is a proposal that aims to address the increasing problem of substandard housing development already occurring through ad-hoc DIY development. Part design-led approach, part finance and management model, home-owners are motivated to create new dwellings within existing houses by partnering with a Community Housing Provider as head leaser for the newly created additional dwelling(s) for a minimum five year period.
The Rightsize Service
City of Sydney Alternative Housing Ideas Challenge

The service would be supported by development advice and new loan and property management approaches. The proposal leverages the potential of domestic space, the DIY ambition of homeowners and the regulatory potential of Community Housing Providers to lift the affordability, quality and diversity of housing in the City of Sydney local area.
6. Leveraging Market Capacity as a Roll-out Mechanism
2019/20 Spending on Housing Construction
(HIA New Housing Outlook, February 2019)

$101.8b
Australia-wide

new dwellings 64.2%

renovations 35.8%
2019/20 Spending on Housing Construction
(HIA New Housing Outlook, February 2019)

$36.44b
Australia-wide

New South Wales
$12.89b

Victoria
$9.32b

Queensland
$7.23b

Western Australia
$3.33b

Northern Territory
$0.27b

ACT
$0.52b

Tasmania
$0.63b

South Australia
$2.25b
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