



Realising urban sustainability?

A collective case study of slippages between principles, policies, and practices in masterplanning

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Introduction

In both urban research and urban development practice there is a growing interest in the incorporation of principles of environmental sustainability in urban design. This is the case for masterplanning practice, or the strategic framework and process for developing or regenerating a (typically urban) site. Masterplanning has been identified as a critical tool for both private and public sector-led housing delivery, but recent analysis suggests that the quality of design achieved varies considerably from place to place.

As with the development of strategic visions in other policy domains, in the field of masterplanning, implementation issues can be a key source of disconnects between what is planned for, and what is realised at, a given site. Despite this, there has been a notable lack of implementation-oriented research in urban planning. In our research we seek to help address this gap through an exploration of where the slippages between masterplanning principles, policies and practices occur. In turn, we posit how masterplanning might be approached differently to reduce such slippages and to mitigate their detrimental effects on realising environmental sustainability objectives.

Study

In our study we took a collective case study approach to analyse the implementation of masterplanning in five case study urban developments. Our case study developments were drawn from two national contexts (the UK and Australia) which were selected on account of similarities in the ways that planning problems are diagnosed (and solutions prescribed), including the development of metrics-based approaches to assessing the sustainability of urban development, with BREEAM (UK) and BASIX (NSW, Australia) being established sustainability assessment tools in each setting.

Within both regions, sites were purposively selected to allow for insights into slippages between masterplanning principles, policies, and practices in settings with broadly shared sustainability aspirations, discourses, planning systems, and policy frameworks. A key selection criterion was that the developers of these sites described and promoted them as having sustainability principles and/or features embedded in their design visions. The case study developments were all non-gated medium scale residential or mixed-use sites that had been recently, or were close to being, completed.

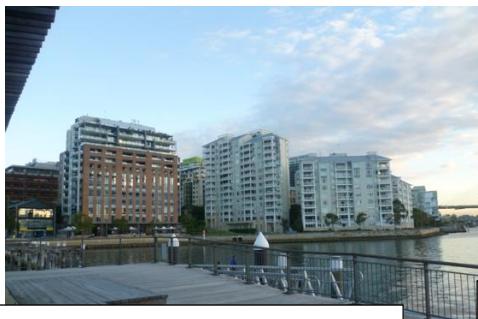


Figure 1 - Jackson's Landing urbanism (inner Sydney)



Figure 2 - Grand union village urbanism (outer London)



Figure 3 - Pavement parking at Park Central (outer Sydney) [photos: A. Jones and J. McCormack]

Masterplanning Analysis Matrix:

1. Framing
2. Context
3. Urban structure
4. Connectivity
5. Place detailing
6. Implementation

For each site we collected masterplanning documentation and analysed primary and secondary published documents and visual materials, and analysed these deductively in relation to salient aspects of masterplanning drawn from the *[Urban Design Compendium](#)*.

Findings

In each of our case studies we observed degrees of slippage and gaps at each stage of development from proposals to practices relating to meeting principles of sustainable urbanism. Some key findings include:

- Developments characterised by sustainable urbanism tended to be those developed according to iterative and flexible processes. These were masterplans designed to develop over time, and actively included and responded to the input of stakeholders, including designers, builders, and other place-shapers.
- Placemaking of high quality does not automatically confer sustainability – evidence showed a considerable variation in the way urban structure elements (including site movement structure, density and site use mix) were used to support urbanism principles.
- In terms of connectivity, car-focused urban shaping was evidently embedded in all but one of the masterplans to varying extents - even in the most urban and high-density site - despite claims made about the 'sustainability' of our case study sites.
- Even where pedestrian connectivity was physically provided for in developments, things like a lack of visibility of dedicated footpaths (e.g. lack of signage), inhospitable road crossings, and driver practices (e.g. pavement parking) reduced the likelihood of more sustainable mobilities taking hold.
- Masterplanning has been postulated as a fairly well-developed and standardised tool for placeshaping. However, its application in our case study sites reveals an elastic set of practices.

Broadly, our study challenges the notion that masterplanning has an inherent capacity to work from sustainable urbanism principles, through proposals, to development processes and into post-occupancy practices always as intended. Rather, slippages between principles, proposals and practices can occur at all stages of the masterplanning process.

Recommendations and further research

We do not claim generalisability for our results, but do argue that they offer transferable insights into the pathway from sustainability claims to outcomes – these include insights relevant to Aotearoa New Zealand as it grapples simultaneously with a housing supply crisis and the findings of the Climate Change Commission.

Key Recommendations:

- Undertake research into the impact of statutory withdrawal from (UK), or variation in (Australia), urban design guidance and regulation
- Consolidating available materials to influence and guide masterplanning, including tools like urban design coding in them, will help to reinstate sustainable urbanism principles
- To achieve sustainability outcomes, develop a distinctively **urbanist** masterplanning typology that corresponds directly to principles of sustainable urbanism
- Develop ways to better balance 'market realities' that foreground housing delivery (such as 'buildability') with wider sustainable urbanism principles
- Experiment with innovative ways of activating sustainable urbanism at the implementation stage, e.g. through strategic planning processes, community and stakeholder engagement processes, and environmental management techniques, to negate and address some of the sorts of slippages we identified

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To find out more about this research please see the full research article here
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