

researchers and institutions not hitherto involved in ISUF but offering further refreshing perspectives; and finally, to strengthen integration of the social, cultural and physical dimensions of urban morphology.

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Experiments in research and practice: engaging design professionals with urban morphology

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In 2012 ISUF established a Task Force to promote engagement between researchers in urban morphology and practitioners. In an interim report two key interconnected proposals were made: first to increase the influence of urban morphology 'by better packaging and marketing', and secondly to 'raise the level of understanding and application of urban morphology in a range of relevant professions through the channel of education and professional organizations' (Samuels, 2013).

Several subsequent reflections on the lack of a consistent link between research and practice have appeared in this journal, not least drawing attention to the tension between prescriptive controls for design relative to a more open process of interpretation of research material in design practice (Sanders, 2013).

Responding to this problem, two studies have been recently undertaken that have explored how morphological research can be a precursor to



Figure 1. Expert Focus group: feedback and discussion among participants.

design. These ‘experiments’ shed light on how designers can engage with urban morphology, and the influence this can have on designs.

An experimental urban design workshop

At an urban design workshop held in Brisbane in 2013, in one of the working groups a researcher (myself) was ‘twinned’ with an architect and urban designer (Cameron Davies) who had been a full delegate at the ISUF conference the previous month and was therefore conversant with the themes discussed among morphologists at the conference.

Diagrams were prepared of the morphological evolution of part of the river’s edge of Brisbane, including the development of wharf buildings, from the period of urban settlement up to the present. A composite diagram of the changing river edge over time was mapped. This was the main basis for informing the design process, and was presented to the design team to interpret.

One of the main principles and recommendations derived from the process was to make accessible the rich physical heritage of the site as a basis for its redevelopment (Stalker *et al.*, 2013). This procedure had a profound impact on the direction and outcome of the design project. The introduction of a new ‘fragmented deck’ took its cue from the original quay and wharf profile. The new dispersed building forms resembled the

warehouse structures from earlier morphological configurations.

The willingness of the designers to accommodate research generated knowledge for the briefing and idea formulation stage of a design project was fundamental. A clear accordance between the proposal and major morphological attributes was achieved, affirming the importance of communication between researcher and practitioner taking place at the outset (cf. Barke, 2015).

An expert focus group

As a second experiment, an expert focus group, in the form of a design workshop, applied research material to practice. Design leaders from the architectural profession were invited to the workshop to test how they could engage with morphological research concerning the diachronic development of a street block in Brisbane (Sanders and Woodward, 2015). This was the starting point for a sketch design for a new building situated in a mid-block ‘infill’ site. The main aim was to assess whether the mapped material had a positive influence on the architectural responses of the participants, and to report on aspects of the experts’ discussions and written feedback.

The participants all showed great interest in the urban morphological research and considered it a useful tool in giving substance and advantage to design decision-making. However, the ‘density’ of

the numerical data of the diachronic mapping was thought to be overly complicated for the broader issues with which the designers were concerned. This was a conclusion that mirrored the view of Davis (2014) that ‘a strong need exists to translate research on urban form and its origins into a language that is compatible with that of practitioners’. However, the historical diagrams were able to be ‘read’ and understood by the participants as a basis for interpretation and translation (Figure 1). While the data defining the broad diachronic streetscape changes were used to give design direction, the architects nevertheless intuitively honed their designs to the existing adjacent buildings. All participants agreed that they had been influenced by the research information and had reacted positively to it, whether formally or in their thinking. The research was seen as an educative tool that can inform the process of design (Sanders and Baker, 2016).

Observations

These experiments are practical examples of how designers can relate to morphological data within a workshop setting. They provide support for the engagement of such data in the process of design, and validate the research-praxis nexus. They suggest that designers have an appetite to engage with research that links research and practice. In particular, testing how morphological research is operationalized by experts in planning and design has resulted in findings that emphasize the importance of appropriate packaging and presentation of research material in increasing the effectiveness of its uptake by practitioners. ‘What urban morphology can provide is a language that conveys the essential components of the desired form. If the appropriate language is used in both planning instruments and negotiations then successful outcomes will be much more likely’ (Hall, 2013).

Research material can be successfully portrayed to architects and urban designers who have not been previously conversant with the work or outputs of urban morphologists. The case studies of which a soupçon has been provided here have yielded insights into how such research can have

a meaningful influence on design thinking, at the building and urban scales. In particular, research can inform and assist designers and decision makers in their efforts to achieve higher levels of congruence in their building proposals.

Ideally local authorities should commission basic morphological research of important urban centres. The mapping arising from this approach should be freely available to decision makers and designers so that they can become familiar in detail with the morphological characteristics of development sites. New building proposals in established urban areas can thus be developed in accordance with an appropriate interpretation of this knowledge. Research-led design, based on the designer’s interpretation of the research data, is an effective and accessible method of aligning theory and practice. Furthermore, it is potentially more readily accepted than prescriptive guidelines and controls.

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