BOOK REVIEW

*Design Research in Architecture: An Overview* edited by Murray Fraser
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The question of design research in architecture, a discipline that is largely perceived as a professionally regulated discipline, is a contested territory by the authors in the book *Design Research in Architecture: An Overview*. The book compares design research to research in other traditional academic subjects such as the humanities, social sciences and natural sciences that have produced well-defined and accepted methodologies. The authors from the UK, Australia, the Netherlands, Sweden, Belgium and the USA are leading academics able to write with confidence and to open up debates and thinking against research dominated by scientific objectivity or technocracy. Together with five other volumes included in the Ashgate book series *Design Research in Architecture*, it offers a variety of key exemplars in the subject. A total of 12 chapters are presented by architects and theorists, together with an introduction by editor Murray Fraser, and these discuss a wide range and diverse modes of what design research in architecture can be, how architectural design research can be pursued and how design research can be related to work in architectural practices.

The complexity of design research is reflected in the process of forming the volume of the book, as editor Fraser describes. Newly emerging themes and diverse forms from different chapters invite individual interpretations of architectural research. The 12 chapters will be briefly introduced as follows:

The first chapter by Jonathan Hill explores the history of design that has been interwoven with the history of drawing since the Renaissance. In Hill’s view, the older meaning of design with the drawing as ideas, and the newer meaning of design with drawings as appliances are both in evidence in the discourse of architects. Exploring the active role of architectural history, he discusses the links between novels, buildings and gardens, and two different roles played by architectural researchers as author-architects and design-architects. He argues that design research offers a paradox in that it creates ‘novel histories’.

In the following chapter, Philip Steadman voices the opinions that the artefacts are not merely ‘evolved’ products of the functional environment. A scientific approach should leave creative options as open as possible. The model ‘Spacemate’ that Philip Steadman set up at TU Delft provides a variety of meanings of ‘possibility’ in
architectural science that can be defined and shaped by the practical and social purposes to which building are put.

In the joint chapter by Richard Blythe and Leon van Schaik, they critically analysed Donald Schö'n’s reflective practice model, arguing that the reflection on action should not be dissociated from the reflection of its subject. Their practice-led design research projects at RMIT University at Melbourne have consciously encouraged different types of reflection in designing. The distinct approach they used is to ensure that design research is hedged with enquiries that are historical, sociological and scientific. Their project enabled the participants to reflect on their works without stopping practising, in other words, researching their practices through the medium of design itself.

Next, Katja Grillner explores the relationship between design research and action research. By analysing classical examples of research using Frayling's distinctions between research ‘into’, ‘through’ and ‘for’ design, Grillner argues that design research not only develops knowledge and applications but also explores research questions that reach far beyond the scope of the design applications. The feminist architecture group FATALE set up by Katja and others in Stockholm aims to alter practice by both expanding knowledge and taking action. Katja also demonstrates how these two goals can be achieved in her own project Rosenlund Park.

Shane Murray also argues that designing is not merely an enquiry directed towards a particular defined outcome; speculative design process can be used to examine the inputs and contextual frameworks in which design takes place. The methods Murray uses to analyse prior projects by other architects enable researchers to identify a series of connections and bring together a broad range of expertise. By using ‘a design matrix’, as Murray argues, the designers can establish a genuine ‘knowledge base’ for transforming knowledge which they observed in a particular precedent example and apply this within a different context to create new knowledge.

In the following chapter, Jane Rendell questions the historical methodological attachments in design research. She argues that design research can generate more questions and not seek to solve problems. Rendell makes a useful distinction between the concepts of multidisciplinary and interdisciplinary research. The latter refers to the research where individuals operate between, across and at the edge of disciplines and, according to Rendell, it is the most beneficial as it raises issues of criticality, ethics and politics. Three alternative forms of architectural design research are proposed in the chapter by placing emphasis on subjectivity, emphasizing the critical and creative role of writing, and through acts of configuration aiming to producing textual spaces which relate the spatial experiences of writing and reading.
Johan Verbeke too argues that the field of architecture incorporates an interaction of explicit and implicit knowledge, therefore, rather than aiming to produce better practice, art practice itself may be the object of research. Analysing EAAE Research Charter and PhDs that are produced through musical performance, he argues that the process of creation is a much more negotiated, explored and curiosity-driven activity. When design and/or practice drive the whole research project throughout its entirety, it can offer the most fertile condition for research by design.

Next, drawn from the studies of the phenomenology, Leslie Kavanaugh argues that space and time exist as a fluid relationship, as perception and as existence themselves. This insight shaped her design proposal for the historical museum in the old harbour of Amsterdam. The concept of the building was designed with the most advanced technologies alongside the most ancient and time-proven means of paint brush, moulding wax and clay, words and gestures in order to put forward a concept of the building that considers history as a multilayered, spatio-temporally continuous and ever-changing event.

Richard Coyne presents a very different chapter about the relationship between design research and the open-ended formations of digital technology. By exploring the keyword (re)search in the contemporary researcher’s repertoire, and the broad media channels in which research is developed and disseminated, Coyne argues that crowdsourced architecture is gaining currency and is introducing new terms and methods for old ideas. In Coyne’s view, technologically oriented architects influence disciplines even more than architecture as ubiquitous images and texts on the internet generate more rapid and hybrid spread ideas. They provide a medium in which people can be articulate without having initially to put matters into words. The audience for media channels is also involved the process of making, as the audience has to be ‘made’, just as it has to be ‘educated’.

The last two chapters by Teddy Cruz and Murray Fraser both question the role of architecture research and design within the context of socioeconomic and demographic conflicts of an uneven urbanization. Proposing to move from ‘critical from distance’ to ‘critical from proximity’, Cruz discusses the projects that encroach into the institutions in order to transform them from the inside out. To reconnect artistic experimentation and social responsibility, he suggests that informal settlements rather than economically abundant sites should be studied as the innovative intervention and engagement for socioeconomic and environmental justice. His work demonstrates that design research can be used as the main creative tool to expand notions of design.
Murray Fraser sees the real task for design research is to act as a mechanism for a wider critique of architecture itself. The ideas are explored by describing his own project working in the Palestine Regeneration Team and the design by Shigeru Ban, Yara Sharif and Lebbeus Woods. Analysing the writing and career trajectory of Rem Koolhaas after his book *Delirious New York* and ideas on design research proposed in Eliel Saarinen’s 1943 book *The City*, Fraser explores how the future version for a city could be used to shape present-day urban planning.

In addition to the 12 chapters, the Indicative Bibliography at the end of the book provides much-needed context for the established theories in the areas. The challenges that the book has identified, and perhaps could have further explored, may be ascribed to two disjointed processes between how architects are educated to capture the open and speculative nature of design, and the realities of architectural culture and practice that have been reluctant to confer these privileges. This is a dense and rich book, and rewarding for close reading. It deserves attention from an audience including practitioners, researchers and graduate students, not only in architecture, but also from other disciplines. The powerful challenges it raises towards the methodologies used by traditional scholarly approaches will provoke architects and academics to find their own ways into design research in architecture.

**Biography**

*Dr Yun Gao* is a Senior Lecturer in Architecture at the University of Huddersfield and a Visiting Professor at the Yunnan Arts University in China. She is a RIBA registered architect who researches and teaches in theories and practices of architecture and design in the UK and in China. Her publications include *Architecture of Dai Nationality in Yunnan, China* (2003) and *Being There* (2010).
Architecture reviews are a static analysis technique. They are typically performed manually, based on informal or semiformal architecture documentation and on the experience and expertise of the reviewers. Architecture reviews can be separated into heavyweight and lightweight reviews [16]. Heavyweight reviews, like technical reviews [17] and inspections [17], are based on rigorously defined, long-running processes and on comprehensive documentation. Lightweight reviews, like walkthroughs [17], active design reviews [18], and the Tiny Architectural Review Approach (TARA) [19], are associated with 4. The Future of Architecture in 100 Buildings (TED Books). The founder of Architizer.com and practicing architect draws on his unique position at the crossroads of architecture and social media to highlight 100 important buildings that embody the future of architecture. We’re asking more of architecture than ever before; the response will define our future. This visual reference includes an introduction to architecture design, historical view of the elements, as well as an overview of how these elements can and have been used across multiple design disciplines. Whether you’re new to the field or have been an architect for years, you’ll want to flip through the pages of this book and use it as your go-to reference for inspiration and ideas.