Dossier —
Research in Large Practice

Guest Editors

Naomi Stead and
Sandra Kaji-O'Grady

Contributors Murray Fraser, Billie Faircloth, Peter Raisbeck and Alex Brown

This guest-edited Dossier addresses the state of research in large architecture practices in Australia, examining the scope, ambition and impact of research activities on the business and culture of practice. How can research secure and enlarge the architect's influence?

A British Perspective on Practice-based Architectural Research

Essay by Murray Fraser

Drawing on insights gleaned as vice-dean of research at the Bartlett School of Architecture and as chair of the Research and Innovation Group at RIBA, Murray Fraser explores how collaborations between academia and practice, financial subsidies and institutional support can enrich practice-based research and encourage its wider dissemination.

Two conditions seem self-evident. Firstly, architectural practice is permeated with research: how else could things be so varied or be able to change so rapidly? Secondly, though, architects in Australia, Britain and elsewhere are hugely ineffective at defining or describing their research contributions. This results in diminished respect shown toward the discipline as well as the loss of potential fee income – errors, incidentally, not made by doctors or lawyers. Hence there is a strong collective need for architects to rectify the situation, with probably the greatest responsibility falling on larger practices, not least as their research work is inherently likely to be more diverse than that of smaller firms.

What, then, might be a more productive relationship between the research in larger practices and the institutional constellation of universities, professional bodies, governmental agencies and industrial partners? For the purposes of this essay, I am assuming that employing more than fifty staff represents a large architectural firm – that is the cut-off level used by the Royal Institute of British Architects (RIBA) to define "large practices," with its figures for 2016 suggesting that these large practices – which comprise just 5 percent of all UK practices by number – nonetheless earned slightly over half of the £2.5 billion revenue earned by architects in the country that year.[1]

In this article I will initially discuss research structures, then financial aspects and the role of professional institutes. Insights are taken from my role as vice-dean of research at the Bartlett School of Architecture or from my time as chair of the Research and Innovation Group of the RIBA. While there will thus be a British inflection, many points are equally pertinent to Australia.

Dealing first with research structures, it is clear that there is a growing wish to involve architectural firms in government-funded research projects as part of the onus on universities to demonstrate the socioeconomic impact and relevance of their research. In this situation larger architectural practices, which tend to have longer and wider track records, are more likely to be accepted by funding bodies. Other initiatives also seem productive, for example PhD studies by employees within architectural companies – often termed "industrial doctorates" – and state-funded Knowledge Transfer Partnerships, with academics providing specialist training in new skills for the workplace. More fluid links can also be adopted. At the Bartlett School of Architecture we have set up the Centre for London Urban Design, run by a full-time academic (myself) and Peter Bishop as a part-time professor who is also a director of Allies and Morrison, one of the UK's largest architecture and urban design practices. We pursue various research projects, mainly through day-release secondment of staff from sizeable London practices. For us, this provides the researchers we require; for the firms involved, it offers staff development and training, plus the chance to contribute to broader research initiatives not linked only to individual projects.

The financial side of research activity is regrettably under-explored by architects. Every country's tax structure is different, yet good accountants and advisers should be able to find where tax breaks exist. In Britain, HM Revenue and Customs (formerly Inland Revenue) operates a general tax credit allowance for those elements of any company's costs incurred in research and development – this being one of the few, and one of the largest, systems of state subsidy in the UK. At the RIBA we were keen to urge British architects to use this facility, circulating guidance to all firms. There is now an increasing take-up, generally saving an estimated £175,000 ($310,000) per year for a fifty-person practice, around £300,000 ($520,000) for a hundred-person firm and so on.[2] Practices then reinvest this tax saving back into the employment of research staff to carry out further investigations.

Institutionally, it is vital that any nation's professional institute has a research committee. In Britain, after years of campaigning, we even finally have a RIBA vice-president for research: Professor Flora Samuel of the University of Reading. She was until recently the chair of the RIBA's Research and Innovation Group and has written a number of useful guides, including a short essay in *The Journal of Architecture* in 2017 called "Supporting Research in Practice."[3] The RIBA runs annual President's Awards for Research that are open to firms and offers RIBA Research Trust Awards to enable practitioners to carry out research related to specific projects they are designing. The projects winning these latter awards are diverse, including, for instance, research by Suzi Winstanley of Penoyre and Prasad titled "ThinkSpace," which explored potential new models for university libraries; Walter Menteth's analysis of procurement processes via Project Compass; and Tonkin Liu's beautiful investigation of Shell Lace Structure, as published in book form (*The Evolution of Shell Lace Structure* by Tonkin Liu).

Openness, transparency and mutual support are vital in encouraging not just the production of architectural research but also its dissemination. In Britain there is still unfortunately a divide between companies that tend to keep their research to themselves, so as to enhance their own

competitive position, and those that realize that research needs to be freely shared. The role of a professional institute such as the RIBA is most pertinent when it focuses on the dissemination and rewarding of high-quality research, rather than trying to direct what ought to be investigated, given that practices are far more sensitive to the types of research required. In the RIBA committee, we preferred to nominate annual themes to stimulate research activity rather than control it, including issues such as how to design for an ageing population or the necessity for a specific ethics policy for our research field.

Elsewhere in Europe, a significant initiative I am involved in is being led by Michael Hensel at the Oslo School of Architecture in Norway, working also with Fredrik Nilsson at Chalmers University of Technology in Gothenburg, Sweden. Under the umbrella of "The Changing Shape of Practice," a series of events have featured the research work of larger practices such as Snøhetta or Kieran Timberlake, feeding into an evolving series of Routledge books that includes *The Changing Shape of Practice: Integrating Research and Design in Architecture* (2016, edited by Michael Hensel and Fredrik Nilsson). Australia is already known as one of the world leaders in design research, due to the likes of Leon van Schaik's program at RMIT University and its impact on design in Melbourne. The ground seems fertile for equivalent institutional openness and ambition in supporting research, in all its forms, within larger Australian architectural firms. One can only imagine the effect this could have on practice if put into implementation.

— Murray Fraser is vice-dean of research for the Faculty of the Built Environment at the Bartlett School of Architecture, University College London.

Footnotes

1. "RIBA Business Benchmarking 2015," ribabenchmark.com/reports/The RIBA Business Benchmarking Report 2015.pdf and "RIBA Business Benchmarking 2016," architecture.com/-/media/gathercontent/business-benchmarking/additional-documents/ribabenchmarking2016executivesummarypdf.pdf.

2. Based on information supplied confidentially to the author.

3. Flora Samuel, "Supporting Research in Practice," *The Journal of Architecture*, volume 22 number 1, 2017, 4–10.

Arrested Development

Essay by Peter Raisbeck

Peter Raisbeck argues that the lack of formalized research and development in Australian architecture practice is stymieing innovation. He calls for a fundamental change in the way we think about architectural production.

Architectural firms are great at creating knowledge and value through design. But when it comes to R and D, architects are good at doing the R but not so good at the D. Arguably, the disintermediation of architects in procurement processes, the rise of partial services and the easy replication of architectural services by others are the result of an endemic lack of both research and development in architectural practice. Retaining research knowledge as tacit expertise in the brains of practice directors or designers, the so-called genii of the office, is not enough these days. Nor is the development of research ideas about merely doing competitions or speculative design projects or teaching a studio at the local architecture school. Nor does R and D mean conducting applied research into trivial aspects of BIM or parametric modelling, while being unaware of more advanced pure research in this area.

It seems that in many architecture practices, the systems and infrastructure needed to support the development of research are mostly fragmentary and ad hoc. While many practices will claim that what they do is research, few practices have formal R and D procedures in place. In a recent survey I conducted through my Surviving the Design Studio blog, 75 percent of the 330 respondents stated that they did not have a formal R and D program or research function in their firms. Conversely, the same number of firms (75 percent) considered that designing, competitions and speculative projects were valid forms of research. Many practices do not employ or develop procedures for articulating and documenting their original design or research outcomes. Aside from publishing for peer-to-peer marketing, including via the various awards systems, much of the research knowledge that is generated in architecture remains implicit within firms. The lack of development, as well as ad hoc and informal research practices, makes it difficult for others to ascertain what aspects of research are, in fact, a contribution to knowledge. This state of affairs continues to have an impact on the industry as a whole because research is needed to maintain competitiveness in a context where rivals either market similar services or create more highly specialized services at a faster rate.

The Australian Research Council's (ARC) public research funding system has not benefited architectural practice and management in this country. Perhaps this is because in Australia, innovation and research management skills are not articulated or recognized in the architectural accreditation system. Architects don't often do formal research methods courses and only a few graduate schools of architecture offer subjects based on design research. Innovation theories, policies and systems, along with venture capital pathways, are not something that architecture schools have frequently taught. Too often these areas of knowledge are somehow seen as being "too corporate" for the design and history connoisseurs. Even more damningly, the proponents of "design as research," associated with the rise of software technology since the early 2000s, have failed to convince the sceptics that design is research that contributes to knowledge.

Innovation pathways are rarely used by architects, although there have been some exceptions. A notable example is the Unitised Building system developed by Nonda Katsalidis in line with the Australian Research and Development Tax Concession. Katsalidis filed a patent for the system in 2009 and it was used to construct the Little Hero Apartments in Melbourne in 2010. The licence was then sold to the Hickory building group and the system is still a competitor in the prefabricated construction market. For projects like this, the Australian Government's Research and Development Tax Concession (now called the Research