Criticising criticisms of research assessment

A caution against disciplinary special pleading

Architectural research and its enemies

Sebastian Macmillan

Like the Research Assessment Exercise (RAE) that preceded it, the UK government's proposed Research Excellence Framework (REF) is a means of allocating funding in higher education to support research. As with any method for the competitive allocation of funds it creates winners and losers and inevitably generates a lot of emotion among those rewarded or penalised. More specifically, the 'winners' tend to approve of the method of allocation and the 'losers' denigrate it as biased against their activities and generally unfair. An extraordinary press campaign has been consistently waged against research assessment and its methods by those involved in architectural education, which I will track over a decade and a half. What follows will question whether this campaign demonstrates the sophistication and superior judgment of those who have gone into print, or conversely whether its mixture of misinformation and disinformation reveals not just disenchantment and prejudice, but a naivety and a depth of ignorance about the fundamentals of research that is deeply damaging to the credibility of architecture as a research-based discipline. With the recent consultation process towards a new cycle of research assessment, the REF, getting under way, I aim to draw attention to the risk of repeating past mistakes.

Coverage of research assessment in architecture

In 1995, during the lead-up to the 1996 RAE, Dave King, practising architect and lecturer at the Liverpool School of Architecture, wrote four articles in consecutive issues of *The Architects' Journal*. He argued that 'research is at odds with architects' education' and 'designing is research in its own right'.[1] He deplored the prospect that schools of architecture might recruit researchers: 'Imagine them stacked with researchers, relying on part-time designers to do the business'.[2] In the second, he argued that 'architect/teachers are [...] unable to find the time to engage in pure research and writing books because they have to deliver [their] buildings on programme, or be sued', and in any case, 'Research is part of their everyday process'. These articles set the tone for a good deal of subsequent coverage of the topic, deploring 'pure research' activity in schools, blurring the distinction between design and research, and ambiguously claiming that in any case everyday practice involves research. Nevertheless, in the final article, King articulates something of real importance that remains a challenge even today, how to 'support the design case', and he goes on to recommend much greater use of publication of design work by architect teachers in the architectural press, and for professors to write critiques and appraise design work publicly.[3]

'... deploring 'pure research' activity in schools, blurring the distinction between design and research ...'

After the 2001 RAE, the anti-RAE campaign gathered pace considerably. Lucy Hodges writing in *The Independent Education Supplement*, following a visit to UCL, identified that among 'the real problems' with the RAE were that 'architectural research differs fundamentally from research in other disciplines', that the built environment panel contained no practising architects, that the panel was interested only in science and 'qualities that can be quantified' [*sic*] rather than in creative and artistic work.[4] She continued: 'The problem with architecture is that, like art and design, research consists of buildings or designs for buildings rather than research papers'. The panel was also accused of not having done its research, and not having looked at architecture and design outputs that were available only at the institutions concerned. Professor Richard Coyne, Head of Architecture at the University of Edinburgh was quoted as saying:

> *We were shocked by the result. It was almost as if they didn't look at our output. Our design work was compiled as portfolios, but none of it was called for.*[5]

Some of these comments echo those of Dave King from the previous round: that architecture is somehow different from all other university subjects, and that designing buildings is a research activity. The comment from Professor Coyne is surprising in that it appears to ignore key principles of research at this level. Assessable outputs must have been captured in some communicable form, subjected to peer review, and available through dissemination. It is difficult for an assessment panel to justify rewarding new knowledge that remains locked in an architectural studio in Edinburgh University, or indeed in a laboratory or a workshop; it might almost as well be in someone's head.

In the pages of **arq**, the campaign started with a highly critical letter

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in volume 6.1 and in the following volume two professors from UCL published a paper scornful of the procedure and its apparent bias against architectural research.[6] As well as criticising the method, they were again scathing of the assessment panel membership noting particularly that it contained no practising designers. These comments were picked up by others and duly embroidered. When the issue of panel membership reached the professional press in the form of an article by the RIBA Vice President for Education, this accusation had become formulated as follows: 'The 2001 built environment panel did not include a single architect'; a charge that was blatantly incorrect and could surely have been checked easily by someone so senior in the RIBA.[7] The following week the same journal published an article with the title 'Architecture Education [*sic*] will Suffer Under a Scientific Approach to Funding', whose criticism was even more intemperate: 'I think that the teaching of architecture is just about the most important thing we can do, and that this whole research thing is rubbish'.[8]

In early 2004 Richard Saxon, one of the doyens of the architectural profession, tackled the topic under the heading 'Design or Research?'. He claimed:

> *The academic world sees research as 'off-line' and expressed in refereed papers alone. The Research Assessment Exercise, which recently marked all architectural school research as below the excellent level, did so on the basis of papers alone, as if architecture were physics or biology.*[9]

'Exactly how much real support for the discipline of architectural research are our supporters delivering?'

It is hard to know where to start unpicking these sweeping generalisations but three statements need to be refuted. First, it is not the case that all architectural schools were marked in the 2001 RAE as below the excellent level. Second, it is arguable that many areas of the academic world accept a variety of outputs as research. And third, it is not the case that papers alone were assessed in RAE 2001. The definition used (and re-used in RAE 2008 with three minor wording changes) was as follows:

> *Research for the purpose of the RAE is to be understood as original investigation undertaken in order to gain knowledge and understanding. It includes work of direct relevance to the needs of commerce and industry, as well as to the public and voluntary sectors; scholarship; the invention and generation of ideas, images, performances, and artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. It excludes routine testing and analysis of materials, components and processes, e.g. for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research.*[10]

As this definition shows, designs were clearly admissible but only under certain clearly specified conditions. Like other commentators, Saxon expressed prejudices that are deeply ingrained in architectural education. And while the article cited starts off: 'I have always been keen on the contribution of research to the advance [*sic*] of architecture', he also explained that his own academic links were through Be (Collaborating for the Built Environment) which was a merger of the Design & Build Foundation and the Reading Construction Forum. Reading University has a leading School of Construction Management and Engineering but no school of architecture. Exactly how much real support for the discipline of architectural research are our supporters delivering?

'A bunch of rankers'

Even the 'winners' of research assessment may feel the need to ensure their success is fully trumpeted. After the results were announced from RAE 2008, in which a profiling system rather than a single figure was used to capture the assessment, Schosa (the Standing Conference of Heads of Schools of Architecture) compiled a league table that reflected both quality and quantity of research and which was published in *Building Design*. In an angry complaint the following week, the Head of the Department of Architecture at Cambridge was quoted as saying: 'It's absolutely idiotic [...] we should be classified as number one'.[11] In the same issue, in her leader under the heading 'A Bunch of Rankers', the journal editor argued that '[...] the process is not simply confusing but reinforces the view that league tables can't really be trusted'.[12] More informed commentators might, on the other hand, argue that the profiling system used in 2008 is rather more sophisticated than the single digit final grading in previous RAEs, and that it is healthy for there to be different interpretation of the results depending on how much emphasis is given to the number of people submitted and how much to absolute quality.

'When both reputations and funding are at stake, emotions run high.'

Incidentally, it is noteworthy that despite the criticism that there were no practising designers on the 2001 RAE Built Environment panel originally made by two UCL professors and later misrepresented by others in the press as there being no architects, there were no practising architects on the 2008 panel either; at least not in the sense of full-time designers regularly producing buildings of acknowledged merit. This is despite the 2008 Architecture and the Built Environment RAE panel being chaired by another UCL professor. Yet the original critics made no complaint about the absence of practising architects on the 2008 panel. Is their criticism from 2002 justified and relevant? Or was it deliberate disinformation intended to mislead readers with complete irrelevances? Either way, is this still a live issue? Do we need practising architects to assess university research?

When both reputations and funding are at stake, emotions run high. The retort of Cambridge to Schosa's 2008 league table was, perhaps, understandable, given what happened after the 2001 RAE. In 2002, the Department of Architecture had been subjected to a review within the University following the drop in its grading from 5 in 1996 to 4 in 2001. According to press coverage, the Department was threatened with closure. On 29 October 2004, *The Times* newspaper reported under the headline 'Design Faculty May

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Have to Shut over Failure', that the General Board of the University had recommended closure on the grounds of 'aspects of the department's research profile going back over two decades', while the acting head of the department Professor Marcial Echenique was quoted as saying: 'Although our visiting lecturers are practising architects, their input is not recognised because they are building things, they are not producing papers'.[13] A month later the topic was front page news in the national press. Under a page one headline in *The Guardian* newspaper – 'Architects Condemn Plan to Close Cambridge School' – it was reported that the General Board of the University had said: 'The Department has made insufficient progress towards meeting Cambridge standards in terms of research quality'.[14] The article quoted from a letter on the letters page that appeared under the heading 'Save Architecture at Cambridge' signed by 11 well-known architects led by another doyen of the profession Richard MacCormac.[15] In their letter the architects state:

> *The difficulties from which the department has suffered in recent years are, in our view, wholly attributable to the distortions imposed on British architectural schools by the research assessment exercise. In the way the RAE has been conducted up till now, the mode of assessment has been profoundly unfavourable to the research embodied in the act of architectural design.*

That same day, 29 November 2004, there was a widely reported public and student demonstration of support for the Department of Architecture in front of the University's Senate House, which was written up the following day by *The Guardian* under the headline 'Architects Attack "Philistine" Move by Cambridge'.[16] A week or so later the Department was given a reprieve, with *The Independent* newspaper, for example, reporting this under the headline 'Architecture Faculty Wins Stay of Execution'.[17] After Cambridge's improved assessment in RAE 2008, the Head of Department's response to the Schosa league table shows how important it was to have the improvement duly acknowledged in the press, and that nothing less than top spot would do.

If the University was swayed by the depth of support for the Department of Architecture in 2004, it seems unlikely to have been influenced by the depth of intellectual argument of the published letter written by the 11 architects. For theirs is no more than special pleading, reminiscent of Dave King's argument from nine years previously that design is research, completely ignoring the many instances when architectural design is not a research process but merely routine. Nor does the letter specify exactly who is undertaking the architectural design that the RAE has so negligently overlooked. Few lecturers are also leading-edge practitioners. Echenique's response is helpful here: it must be the visiting lecturers. Expressed like this, there appears to be the implication that Cambridge depends for its success in the research assessment exercise on the research contributions of visiting studio tutors.

The letter from *The Guardian* is also noteworthy for what it says about the research exercise in relation to British architectural schools; that the RAE's mode of assessment is profoundly unfavourable to their 'style of research'. Once again this takes the argument back to the line that, while the RAE may be fine for every other academic discipline, there is something unique and distinctive about architecture that renders the RAE process unfit for purpose in our case. To me, this seems a high risk strategy. For if it is really the case that architectural research is such a poor fit in the whole university system, are we not obliged more than any other subject to examine our own practices, to explain ourselves, and to justify how our unique methods of production of architectural knowledge are at least intellectually equivalent to the production of knowledge in other subjects that conform to established research norms? This needs far more cleverness than merely repeating endlessly the mantra that 'design is research'.

Fortunately for the discipline of architectural research, although these justifications were conspicuous by their absence, the Cambridge Department of Architecture was not closed. Nevertheless, the arguments aired in public by its supporters to prevent closure seem intellectually weak and indeed high risk should they have been subjected to critical examination. For the record, an alternative explanation was given later in the *Cambridge Evening News* by the Head of Department Professor Echenique, who suggested that something other than lack of academic excellence lay behind the threat of closure:

> *The real reason was money. The university was in a big hole financially so they were looking for possible ways of cutting expenditure.*[18]

The purpose of research assessment

It is important to emphasise that the purpose of these assessments from the perspective of the funding councils is to reward successful research endeavour. This issue is touched upon rarely in the discussion but it is vitally important. The RAE is not a general review of the health of a University department and certainly not of its undergraduate teaching. Nor is the funding that follows the research assessment meant to be used for general housekeeping. Research assessment is intended to assess research quality so as to support and reward successful research. In this, it incentivises research endeavour. Unfortunately because there is not an established tradition of research in architecture schools, because there is such a strong emphasis on studio teaching and design work, and because as the press coverage shows research is widely viewed with a combination of suspicion and indifference, this simple fact is often lost or ignored. In addition, research income from the RAE is typically used in schools of architecture to subsidise studio teaching which is an expensive and demanding activity compared with the 'chalk and talk' approach to lecturing to large numbers of undergraduates in certain other university subjects. The disquiet from those schools of architecture that are not highly rated in the RAE is partly about their reputation, but partly about the impact on income to support teaching, even though this is clearly not the purpose of the exercise.

'...the purpose of these assessments ... is to reward successful research endeavour.'

Why don't schools of architecture focus on being excellent in teaching and give up on research? Some have, and it seems entirely reasonable that some should concentrate fully on teaching, and not do research. Teaching might even improve, for combining a teaching career with undertaking research may lead to

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neither being done well unless sufficient time is clearly allocated to each activity by the institution. While being research-active may or may not improve design teaching, it is certainly likely to reduce the time available for an individual to spend with undergraduates. Supporting research clearly involves additional expense to institutions. But there seems to be something cultural that works against taking this step, as if not being part of the RAE is somehow an admission of failure. A key downside for the individual is the reduced likelihood of moving to a research-led school of architecture, so career prospects may be negatively affected. This seems to be one of the disadvantages of the RAE that, although it should be regarded as concerned purely with assessing research, it has a high profile and its results are treated as a measure of general health.

Promoting design as a research activity is a solution to this problem which architectural schools have converged towards. This is not the place for a full examination of the arguments in favour of and against the proposal that 'design is research'. Interested readers might start with a thoughtful paper by David Yeomans in the first issue of **arq**.[19] There is no doubt that the design activity can be a research activity under some circumstances, and that some design outputs can be a contribution to knowledge. This is fully recognised in the research assessment exercise. By contrast however, a great deal of design is routine – what Yeomans calls 'general practice' by analogy with medicine – including most of the activities undertaken by practitioners concerned with the business of producing a building. The vast majority of building projects, while valuable in themselves, do not advance the boundaries of human knowledge or meet the RAE criterion. Although this debate about design as research is likely to run and run, the deliberate blurring of distinction between design and research is often little more than an attempt to disguise a lack of research outputs by those who are not otherwise research active. Bizarrely, for all the arguments about design as research, few lecturers in UK schools of architecture are engaged in the day to day business of designing buildings, whether these are routine designs or contain research insight.

'The … risk that design teaching is perceived as the delivery of a craft skill, undermining its place in the academy.'

As a consequence of the RAE, in the UK Russell Group of research-led universities there has been a move to distinguish more clearly between research and teaching. Lecturing staff are increasingly, and in some cases exclusively, lecturing and researching but not giving tuition in the studio. To fill the gap, practitioners are brought in as visiting tutors to support undergraduates in studio work. This system has its advantages and disadvantages. In its favour is that lecturers can be specialists with research training to Ph.D. level who thereby have the expertise, and are given the time, to conduct research and produce new knowledge. Conversely, while the RAE system is intended to support a research ethos underpinning undergraduate teaching, separating out teachers and researchers largely distances undergraduate teaching from cutting edge research. This carries an associated risk that design teaching is perceived as the delivery of a craft skill, undermining its place in the academy.

REF and the move towards assessment based on impact

Under the latest proposal from the Higher Education Funding Council, the Research Excellence Framework will replace the RAE in the next round of assessment.[20] A letter from the Secretary of State for Education and Skills dated 22 January 2009 is quoted as emphasising that the REF should take better account of the impact research makes on the economy and society: 'The REF should continue to incentivise research excellence, but also reflect the quality of researchers' contribution to public policy making and to public engagement, and not create disincentives to researchers moving between academia and the private sector.' A consultation process in late 2009 invited interested parties to comment on certain elements of the REF, including the assessment of impact and its weighting at 25% of the total (compared with 60% measuring the quality of outputs and 15% describing the quality of a Department's research environment), but also numbers of outputs to be submitted, the use of citation data, alignment of criteria across sub-panels, treatment of interdisciplinary research, and consistency across panels. At the time of writing their compilation and analysis has not been published by HEFCE. An emphasis on impact is understandable given the policy imperatives for supporting research, and the present state of the economy. Where Britain's wealth was formerly derived from manufacturing, we are now much more dependent on 'the knowledge economy' for prosperity. Despite Britain's relative lack of natural resources and the loss of our historic manufacturing base, we have developed strongly our knowledge based industries including the creative industries; we sell design services across the world.

There is something aspirational in championing blue-skies, cutting-edge, or strategic research, and arguing in favour of knowledge for its own sake being produced by those who are driven by no more than informed curiosity. Such research may have benefits that are entirely unforeseeable and which are eliminated by a failure to support it. And by contrast there is something rather prosaic in supporting applied research or action research that is often a close relation to plain development rather than to fundamental research. More than 18,000 scientists including six Nobel laureates and a former government chief scientist are reported to have signed a petition deploring the proposed move to assess research by economic impact rather than scientific excellence alone.[21] The same article quotes Professor Donald Braben, Honorary Professor of Earth Sciences at University College London as saying 'Virtually every major scientific discovery ever made would not have survived the current proposals with the emphasis on economic impact', while it is the reported view of Lord May of Oxford that it is the task of industry to think of ways to gain economic benefit from science. Clearly, the proposals for the REF are regarded as controversial by many scientists. Assessing impact is just as challenging as assessing scientific excellence, perhaps more so. Pure scientists may argue that if the impact is immediate, it isn't research at all, but merely testing and development. And if impact at 25% of the total assessment is adopted for the final REF criteria,

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among the issues to be faced will be how exactly impact is to be measured, over what timescales, and how attribution will be dealt with equitably.

The RIBA's response to the consultation in autumn 2009, submitted by its Director for Research Keith Snook, is largely favourable to the proposals, although in terms of impact there is a question whether as a relatively new and untested criterion for research assessment it should be weighted as highly as 25% of the total. The quotation from the Secretary of State's letter in the HEFCE consultation document cited above is particularly interesting for the discipline of architecture in its reference to researchers moving between academia and the private sector. A clear effect of past research assessment exercises has been to cause a split between research-active academics researching and lecturing, and studio instructors being recruited from practice to teach. It is widely acknowledged that these studio tutors, essential though they are to architecture schools, are simply not qualified to occupy tenured posts in research-led universities because they lack formal research qualifications and the publication track record to be highly rated in the research assessment process. Yet they are sometimes from high profile consultancies whose work is regularly published and – potentially at least – likely to have an impact. If their projects can be shown to be not merely routine but to meet the RAE/REF criterion for designs assessable as research outputs, and to be impactful, then they would have substantial claims to be regarded as research-active for the purposes of the RAE/REF. There is a real potential for change here, reinforcing the long-standing claim for some designers to be regarded as research active. However, such change will not be brought about by ill-informed bluster in the press, but by considered debate, by the careful marshalling of arguments, by the architectural research community demonstrating that it understands, and is fully engaged in, the research assessment process.

'… change will not be brought about by ill-informed bluster in the press, but by considered debate …'

What makes us vulnerable as a discipline?

If issues from 15 years of press coverage are brought together, we arrive at a series of rather challenging questions: does architectural research differ fundamentally from research in other disciplines; is research assessment interested only in 'qualities that can be quantified'?; should design work still in the studio be counted as assessable research?; should practising architects be involved in research assessment?; is design research?; is 'the whole research thing rubbish' and should we just be teaching?; does the academic world see research as only that expressed in research papers?; does the RAE 2008 profiling system allow interpretations that are 'absolutely idiotic'? There are some big questions here to which there are not necessarily right or wrong answers. But the way in which they have been presented in both the national and the professional press by the architectural research community and it supporters seems to this author nothing less than extraordinary. Can one imagine any other research community that hopes to be taken seriously making comments that appear so naïve? Has the exposure revealed that we are knowledgeable, well-informed and sophisticated? Or do we appear merely petulant, prejudiced and ignorant of the basics? Where, for example, is the considered debate among these commentators about how to demonstrate that designs claimed as research offer new or improved insights, about the levels of proof that a design needs to exhibit to meet this criterion, and about the refereeing process to support it? Such a debate is crucially needed yet conspicuous by its absence.

The backlash from RAE 2008 seems to have been rather less than that from 2001, thanks perhaps to grade inflation and to the profiling system that replaced the single digit grade of 2001 which allows for more nuanced interpretations of the final outcomes. Nevertheless, damage has been done to the reputation of architectural research by the press coverage reviewed here. As the next cycle comes around, if we are to be taken seriously, we should pause for reflection before hitting out. A start has been made to examine architectural research and to promote a considered view, specifically in Jeremy Till's position paper on architectural research commissioned by the RIBA Research & Development Committee.[22] The R&D Committee also promotes annual RIBA Research Symposia, intended to raise the level of debate and indeed research awareness across the architectural profession. We are not yet in the happy position of receiving contributions in publishable form,[23] but by dint of recording, transcribing, editing and adding illustrations, the committee has ensured that a comprehensive record of the proceedings of each event has been placed on the RIBA website as a contribution at some level to architectural knowledge, even if references and peer review are absent. Two symposia have been formally written up for publication (Short, 2008; Swenarton, 2009).[24] Of course, as a community, we also have **arq** and several other journals that publish and champion architectural research in ways comparable with established norms in other academic disciplines.

'… we should … be cautious in how we promote our perceptions of our own uniqueness.'

Nevertheless, as I have shown, on the whole we have been all too ready not just to reveal but to broadcast how little we know in architecture about the production of new knowledge compared with our colleagues in other disciplines. If there is, as stated by several writers cited here, something about the discipline of architecture and its relationship to research that makes its place in a research-led university so problematic, we should I suggest be cautious in how we promote our perceptions of our own uniqueness. For all the claims that are dear to the heart of architects about architecture as mother of the arts and among the oldest professions, our place in the highest echelons of academia remains vulnerable. And what is the greatest source of that vulnerability? I have tried to illustrate here that it is not criticism from without that we need to fear, but inaccurate, naïve and ill-judged commentary from within. To end with a question: are we not our own worst enemy?

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sub-panel of the Built Environment panel in RAE 1996, member of the Built Environment panel (Unit of Assessment 33) for RAE 2001, editor of the Cambridge 1996 RAE Built Environment submission, and author of the Cambridge 2001 RAE Built Environment RAE submission. He chairs the RIBA Research & Development Committee and is Course Director at the University of Cambridge for the masters programme Interdisciplinary Design for the Built Environment.

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