

Design Studio and the Potential Renaissance of Contextual Buildings

Professor Bob Giddings

Northumbria University, Newcastle upon Tyne

Introduction

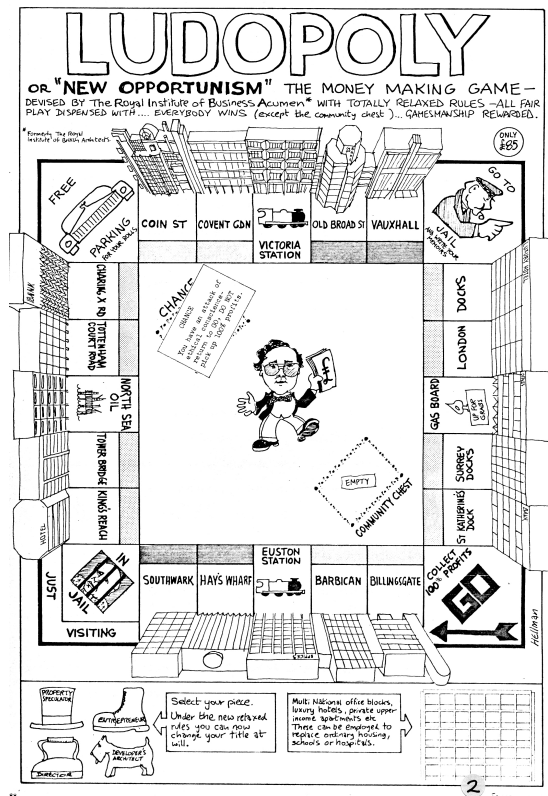
The notion that architectural education and the design studio in particular, should mimic practice is erroneous. Education, research and practice are each valid in their own right. Further, Peter Clegg – founding partner of Fielden Clegg Bradley, one of the most successful architectural offices in Britain champions the idea of it becoming more like a school of architecture. He says – ‘why don’t we think about the experience of a school of architecture and bring it into practice? The kind of freedom of thinking in education and the discipline of research are something that needs to influence practice’.

While it is clear that the design of high profile, well publicised, iconic buildings receives considerable attention; it could be argued that they occupy only a very small proportion of the built environment. It is likely that the vast majority of architectural graduates will be involved with buildings of more commonplace uses, and these constitute the majority of built form and new construction. As the 20th Century progressed, the scale of these developments and the loss of local builders meant that what had been contextual building increasingly became part of the design and construction industry. Of all the activities related to the development of these buildings, design is the most vulnerable. Among inaccurate claims that architectural education has not progressed since 1958, some practitioners are calling for the production of graduates as entrepreneurial leaders with a curriculum that spreads across the entire scope of the built environment. Together with the increasing accessibility of new technologies, with their libraries of standard components, this may lead to a decrease in the demand for and availability of design skills with the spectre of a growing array of incoherent catalogue buildings. Alternatively, reinforcement

of design education within the studio culture could offer a renaissance in contextual building, regional responsiveness and movement towards shared architectural language.

Context

The advent of another recession in the construction industry, once again throws the spotlight on architectural education; and once again it is the practitioners who are spreading doubt about the effectiveness of current methods. There appear to be three primary accusations. The first is that education is becoming ‘increasingly detached from the needs and aspirations of a wider society’, secondly that ‘it has not changed since professional validation was set up to deal with the rapidly expanding profession in the post-war period’ and thirdly that five years university education is unaffordable^{1,2}. It is reminiscent of thirty years ago, when a Conservative Government presided over another recession that damaged the construction industry. At that time the Prime Minister declared there is no such thing as society. The definition of wider society is therefore an interesting concept. If society means the community, architectural education continues to be a champion and some schools of architecture highlight it as part of their philosophy. If it is a society of entrepreneurs and business, then this concept was tried in the 1980s recession (see Fig. 1). Moreover, the notion that education should deliver new generations of wide ranging professionals, diversely skilled with a common entrepreneurial approach, places the emphasis on finance. Of all aspects of the development of buildings and places, the most vulnerable is design quality, often because of the difficulties of measurement. If architecture students are to be part of this common entrepreneurial approach¹, who will be the guardians of design quality? The inevitable outcome is that architects become a cog in a larger wheel of business (see Fig. 2). As Reyner-Banham³ put it – the choice is between sticking to the high ground or becoming part of the great real estate hustle. In this context, the dangers of education mimicking

Fig. 1. Ludopoly – The Money Making Game ⁴Fig. 2. The Building Business Machine ⁵
practice are all too evident but the main reason why this tempting path should not be followed is that a circular pattern of education following practice following education following practice... is established, from which advancement cannot be achieved. That situation would be truly sterile. The proposition that architectural education has not changed since the second half of the 20th Century is just misguided. The

introduction of the Quality Assurance Agency for Higher Education, with its qualifications framework, modular system including learning outcomes; the subject benchmark statement with which both the ARB and RIBA are engaged; and the new criteria which responds to the European Union and the Architects Act 1997 – are all huge advancements in architectural education⁶. This is not over-regulation but a sound and structured framework. The claim that five years university education is not affordable is probably the most erroneous of all. It is suspected that the proposal of teaching practices, with the prospect of employing talented students on low salaries may be one of the motivations. It is only necessary to re-read the debacle over internship of year-out students ie employment for no income, or the treatment of staff in a recession, to realise that it is not a sound proposition. In addition, the standard university course of architecture in Europe is five years, and numbers of countries are moving to the 3+2 pattern following the Bologna Agreement. It is already the pattern in Australia and much of the Far East. In the USA, the debate is about whether a five year BArch or six year MArch is more appropriate. In Romania, there has been recent dismay that architecture courses would only extend for six years, while other compatible programmes are adopting a seven year pattern⁷. Fortunately, there are far-sighted practitioners such as Peter Clegg who recognise the value of architectural education, and studio teaching in particular. His concept is that practice could behave more like a school of architecture and make use of the research that is currently being undertaken in universities⁸.

The Future for Architectural Education and Practice

The greatest difference between the 1980s and today, is the influence of digital technologies in education and increasingly in practice. The new digital age may seem irresistible for students, but even they have some doubts about adopting it wholesale. Extracts from the Yale University Symposium capture some of the issues. The Dean, Robert A Stern, set the tone with his opening remarks that 'architectural education is in a crisis situation where drawing is concerned'. For as long as there have been schools of

architecture, the pencil has been the tool of design. Perhaps staff are reluctant to discard their past, or maybe there is legitimate apprehension. A clear view at the symposium was that students who draw and model by hand are better able to conceptualise the context, and they are more able to understand the principles of construction. One student expressed a prevalent theme amongst the students when he said 'learning to switch between different media enables students to develop flexibility and critical thinking skills'. It is probably not surprising that the conclusion was - 'architecture schools should advocate both hand and digital techniques because of the critical thinking skills gained from both methods'. Yet the threatening stereotypes were also beginning to gather - 'students who spend less time practicing computer-based tools and rely on hand drawing will work for firms that specialize almost exclusively in traditional architecture'. For practice there are two principal motivations. The first is expressed by Patrick Schumacher of Zaha Hadid Architects 'We can no longer rely on shapes we can track on a piece of paper'⁹. This is one of a celebrated group of practices that are designing contemporary buildings which make use of fluid shapes and curves. The other motivation is business efficiency and is exemplified by building information modeling (BIM). The message is lean design practice and there is no mention of architectural design quality¹⁰. This situation is exacerbated by the professional panic being engendered by the plan to make BIM compulsory on all public projects by 2016¹¹.

Only recently has research been undertaken into the effectiveness of communication using a range of tools. In a research project¹², the same design was presented to a mixed audience by traditional drawings, a digital model and virtual reality. It was discovered that all three methods have a role to play but they are different ones. At the beginning of the project, there was a hypothesis that the presence of the other two techniques, would mean that the drawings would be redundant. It was actually found that understanding the overall design, and the distribution and relationship of spaces was best achieved with traditional drawings. In all other respects, drawings are not a good medium for communicating the design intent. Advances in digital techniques are already occurring in a number of industries. However, there is a need to be cautious. Users can become mesmerised by computer generated images, and this effect

can greatly diminish their critical faculties¹³. The study by Serginson et al.¹² concluded that the viewers' critical analysis was adversely affected by the nature of the virtual reality model and the sense of immersion using 3D glasses. Moreover, Eley¹⁴ states that evaluating the quality of a building design is not like assessing it in a marble, dinner plate or a car. Even automobiles are far simpler than buildings, with a high proportion of characteristics that are physically measurable.

The future for high profile buildings and their architects seems assured. Digital technologies have enabled extraordinary new buildings to be designed and constructed. Forms of nature are providing inspiration for increasingly complex built forms and architects are rediscovering the joy of sculpting unusual geometries¹⁵. One of the most enjoyable forms and spaces conceived in this way is the City Hall in London (see Fig. 3). The computer's processing capability in structural analysis, and production and fabrication techniques are major contributors to the changing shape of architecture. Architects are exploring the new possibilities opened up by CAD software, modern analysis and simulation methods¹⁶.

Whilst it must be acknowledged that these well-publicised iconic buildings are receiving considerable attention, it can be argued that such projects occupy only a very small proportion of the built environment. It is likely that the vast majority of architectural graduates will design buildings with more commonplace uses, and these constitute the majority of built form and new construction. Fig. 4 shows an exaggerated historical view of an iconic building framed by contextual buildings¹⁷. Traditionally, the latter were constructed from custom and practice, rarely involved architects, and fitted into their localities.

However, as the 20th Century progressed, the scale of these developments and the loss of local builders, meant that what had been contextual buildings, increasingly became part of the design and construction industry. Before the end of that century, concern was already being expressed about their appearance. It has been considered that one of the major reasons for the decline of our towns



Fig. 3. Digital Model of City Hall London, (Foster and Partners)¹⁸

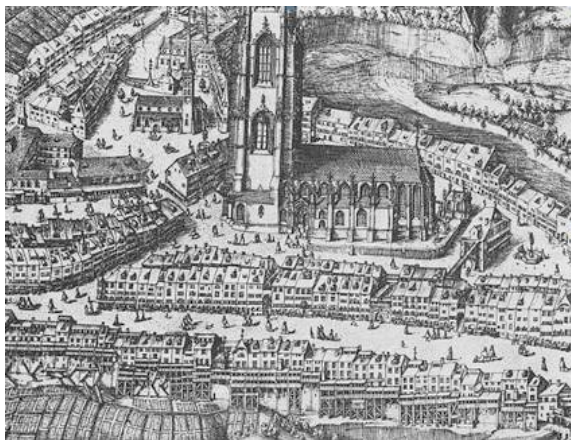


Fig. 4. Iconic Building framed by Contextual Buildings¹⁷

and cities in visual terms is that ordinary buildings from the second half of the 20th Century onwards are each trying to draw attention to themselves¹⁹. At the other end of the spectrum, the demand for cheapness in the production of the built environment has generated the dull and mundane. National pervasiveness of some sectors, such as speculative house building, has produced a consensus lamenting the lack of regional distinctiveness in domestic design (see Fig. 5) as

opposed to a contemporary design that fits into its location (see Fig. 6).



Fig. 5. Speculative House



Fig. 6. Bledlow Village Houses (Aldington, Craig and Collinge)

There has been a continuing search for a shared architectural language. The likelihood is that digital information models based on building elements will become increasingly used for the design of these buildings. Much of the development of systems has been directed towards ease-of-use, and to a large extent this has been achieved. The benefits have already been considerable, in terms of use as a design tool rather than a drafting tool - reduced time in presenting the information, relationships between building elements, instant schedules for doors, windows etc., and many more. Conversely, every advance also carries dangers. In the hands of current graduates, such systems

can assist subtle building design. The first danger is therefore related to a totally electronic design education. Even the students feel that unless all the benefits of the traditional education can be translated into electronic media, graduates may become increasingly detached from the nature of buildings, and just work within a virtual world. Working with physical models and drawings is an abstraction from reality, but at least they are real objects that can be touched.

Another fear is that as the tools become more accessible, the ease-of-use that was so welcomed by architects, may be their downfall. If systems become so simple that anybody can use them, then anybody will use them. Clients whose primary interest is generating floor space may feel that a building information management system could replace the architect, especially if the system has a standard library of components. Some clients may employ unqualified assistants to press the buttons, or may even undertake the process themselves. This scenario is not encouraging for increased design quality and interesting building forms, which require intuition, spontaneity and exploration, as well as geometrical precision. In the hands of unqualified practitioners, this fear can easily become reality, and the built environment could turn into an ever-growing incoherent array of catalogue buildings²⁰ (see Fig. 7).



Fig. 7. Incoherent Catalogue Building

The Proposition

From the mid-20th Century, citizens were beginning to notice urban decline and what has become known as a crisis in place identity. The decline of place has been seen through loss of symbolism and uniqueness. This problem has received attention from scholars with some

introducing the concept of placelessness as an underlying attitude that does not acknowledge significance in place. Part of the attractiveness of nostalgia, is the notion of returning to a time when the built environment gave clear indications as to location. This is the essence of traditional architecture and what has become known as the vernacular. Traditional designs are still produced but they engender an unease, which often manifests itself with the accusation of pastiche. There is also the difficulty that due to circumstances ranging from building types that have emerged without a traditional vocabulary, to changes in building construction, it may no longer be possible to faithfully replicate buildings from the past. Poor copies of traditional buildings do not fulfill anyone's aspirations. The response was a modern architectural language for modern buildings in modern times. However, that was a fast track route to placelessness. So, this is the dilemma. The human psyche needs to progress and not just copy the past; but attempts to progress have resulted in the loss of recognisable surroundings. In the post-modern era, the awareness of the need for regional identity has contributed more to recognition of the problem than to search for solutions. Regionalism (or critical regionalism), which is one of the manifestations of post-modernism, was an attempt to put back into architecture what modernism conspicuously took out, namely continuity in a given place between past and present forms. In regionalism, reinstatement of identity, urban public places and streetscapes present an image of the city, town and village which differentiates it from other places. The establishment of a unique identity in the image of place, not only recreates the sense of place, but also helps to re-connect between people and place. In this way architecture and society might be re-united.

Concerns have already been expressed about the future roles of digital technologies. Yet, there are extraordinarily good at handling data – including visual data. Together with traditional design methods, a shared architectural language could be explored in studio and research environments. A particularly important aspect would be to develop the theoretical underpinning for the design of contextual buildings that display regional distinctiveness. This might involve the forms of buildings, their materiality, openings and details. It would be derived from the vernacular but interpreted into contemporary

building design. Issues will be raised about appropriateness and that is why the theoretical underpinning is so crucial. However, a significant aspect of a regional identity lies beyond the envelopes of buildings. Part of the disquiet about development since the second half of the 20th Century has been about notion of individual buildings seemingly just dropped into space. Characteristics of place are generated by the disposition of groups of buildings and the use of positive space that they define.

Conclusion

Architectural studio education and its associated research needs to retain the confidence to lead the way. If in Reyner-Banham's terms, it does not stick to the high ground but becomes involved in the great real estate hustle, architectural and urban design quality will be the poorer for it. Moreover, educators need to rebuff attacks on the studio as the pre-eminent creative design environment; and refer to Feilden, Clegg and Bradley, as they support architectural studios in practice. The times ahead will be challenging but there is a potentially exciting role in encouraging the renaissance of contextual building, regional responsiveness and movement towards shared architectural language.

Notes

¹ Buchan, P. "Architecture education is over-regulated and sterile" in *Architects' Journal* EMAP Publishing: London, UK. 2 November 2012. Available at: <http://m.architectsjournal.co.uk/8638038.article>

² Murray, C. "Does architectural education need an overhaul?" in *Architects' Journal* EMAP Publishing: London, UK. 15 November 2012. Available at: <http://www.architectsjournal.co.uk/comment/does-architectural-education-need-an-overhaul/8638620.article>

³ Reyner-Banham, P. "Keynote Address" in *Proceedings of the RIBA Conference: New Opportunities* Southampton, UK. September 1981.

⁴ Hellman, L. "Ludopoly – The Money Making Game" in *Architects' Journal* EMAP Publishing: London. 4 November 1981. p888.

⁵ Advertisement. "The Building Business Machine" in *Architects' Journal* EMAP Publishing: London, UK. 30 March 1983. p60.

⁶ QAA, *Subject benchmark statement: Architecture* The Quality Assurance Agency for Higher Education: Gloucester, UK, 2010.

⁷ Harmanescu, M., Popa, A. "Responsibility through Environmental Education" in *Proceedings of the*

International Conference on the Role of Universities and their Contribution to Sustainable Development Strand: Belgrade, RS. 2012. p38-47.

⁸ Clegg, P. "An Interview with Peter Clegg, Feilden Clegg Bradley Studios" *Betterbricks*: NEEA: Portland, OR. 2009. Available at: <http://www.betterbricks.com/design-construction/reading/interview-peter-clegg-feilden-clegg-bradely-studios>

⁹ <http://yaledailynews.com/blog/2012/04/06/up-close-at-school-of-architecture-role-of-drawing-in-doubt/>

¹⁰ Arayici, Y., Coates, P., Kosela, L., Kagioglou, M. "BIM Adoption and implementation for Architectural Practices" in *Structural Survey* Emerald: Bingley, UK. 29(1) 2011. p7-25.

¹¹ www.architectsjournal.co.uk/news/daily-news/paul-morrell-bim-to-be-rolled-out-to-all-projects-by-2016/8616487.article

¹² Serginson, M., Giddings, B., Ladinski, V. Messer, S. "Assessing Effectiveness of Architectural Design Communication through Public Participation Methods" *The International Journal of Design Management and Professional Practice* Common Ground: Champaign, IL, 6(1) 2013. P61-84.

¹³ Groak, S. "Representation in Building" in *Construction Management and Economics* Taylor & Francis: London, UK. 19 2001. p249-253.

¹⁴ Eley, J. "Design Quality in Buildings" in *Building Research and Information* Taylor & Francis: London, UK. 32(3) 2004. p255-260.

¹⁵ Novitski, B.J. "Fun with computer aided modeling clay" *Architecture Week.com* 30 August 2000, p.T3.1.

¹⁶ Mitchell, W. "Square Ideas" in *New Scientist* Elsevier: London, UK. 2000. Available at: <http://www.newscientist.com/article/mg16522265.300-square-ideas.html>

¹⁷ Lozano, E. *Community design and the culture of cities* University Press: Cambridge, UK. 1990.

¹⁸ Giddings, B., Horne, M. *Artists' Impressions in Architectural Design* Spon Press: London, UK. 2002.

¹⁹ Sahai, V. "Search for a shared language" in *Architects' Journal* EMAP Publishing: London, UK. February 1991. P41-45.

²⁰ Martins, B., Koutamanis, A., Brown, A. "Predicting the future from past experience: a reflection on the fundamentals of CAAD" *Proceedings of the 24th Conference on Education in Computer Aided Architectural Design in Europe* eCAADe: Frankfurt, DE. 2007.