

architectural education: a manifesto

What is an architectural education? What is the curriculum for? Should there even be one? How closely should practice be related to theory? Two senior teachers suggest some answers to the current crisis.

You wish to become an architect?
That too requires a well-stocked
mind." - Socrates

Architectural education is in crisis. The crisis has deep implications for the future of the profession - but since its primary manifestation is in a sense of lack of direction in many architecture schools, its consequences may not always be obvious to architectural professionals.

The crisis has many shapes but at its core is a complete uncertainty and lack of agreement about what constitutes an architectural education. This phenomenon is a relatively new one, for until about the mid-1960s there was at least a broad agreement that the educational process which a school of architecture should offer was one which would enable students to work as architects. Today, however, to many people this view sounds obsolete and old-fashioned. Because there is no longer invariably agreement that architecture schools should be preparing students to work as architects, there

are doubts whether schools should offer any kind of a structured learning process at all. This is not a debate about the content of the curriculum - this has always gone on and is natural and healthy. Today there is a commonly-held belief that there should be no curriculum at all.

In consequence schools are often permeated by a sense of confusion. Many academics feel uncertain about what they should be teaching, while students are frequently unable to see how the teaching they receive can contribute to their future professional work. This unease is made even worse by an uncertainty about whether there is a body of knowledge to be acquired at all. In such a situation it is increasingly common to encounter the idea that instead of knowledge, all that students need to acquire are the attitudes, language and verbal behaviour of the architect - whatever they may be. (The proposition that architectural education is as much about socialization as

about skills is argued by Gary Stevens in "Struggle in the Studio", *Journal of Architectural Education* 49, 1995.)

If one admits the astonishing - but widespread - proposition that there may be no things which one has to learn in order to be an architect, then it follows that there is no reason to require students to learn to make a plan, or to form spaces to accommodate the human body in motion, or to recognise certain essential techniques about the assembly of components. Without a curriculum, it becomes impossible, for instance, to say in which semester students should learn to design a staircase: there is nothing that prescribes that they have to learn how to design one, nor indeed is there any mechanism available to prevent them from graduating without ever having done so. The lack of clearly-defined curricula also means that degrees awarded by the schools cannot guarantee that their graduates possess any specific knowledge or skills.

At the same time, there is the risk of allowing architectural education, especially in studio, to become dominated by a kind of pseudo-intellectuality¹. There are currently two major tendencies in the academic world which encourage such an outcome. The first is that architecture schools frequently co-opt the best of their students directly back into teaching without having required them to gain experience of work in practice. This leaves them largely in ignorance of the practical aspects of the discipline which they are teaching.

TEXT TONY VAN RAAT AND BRANKO MITROVIC

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The second trend is that, while teaching, these young academics are expected to produce sophisticated research in order to obtain higher qualifications and a research record. Since they will normally lack a taste for the technical aspects of the discipline (not having learned much about them in an educational environment resistant to the idea that students should acquire a body of knowledge about building), their research is usually in the field of the humanities - philosophy, literature, art history, semiotics and so on. But architecture schools are not able to provide their graduates with proper training in the humanities, and young architectural academics, operating in a field for which they are ill-prepared, therefore commonly fail to achieve satisfactory levels of scholarship.

These tendencies produce teachers who are ambitious and insecure at the same time. They are working under great pressure and in an intensely competitive field in which they may lack fundamental competencies. They are likely to substitute the clever use of words for substantial arguments: finding that they do not know about something, they will challenge whether there is any need to know it at all. Indeed, their previous education tells them that education has nothing to do with the acquisition of skills or knowledge. They are vulnerable in their knowledge of practice - so they dismiss it.² But neither are they trained to be competent scholars in the humanities - so they dismiss formal scholarship as well.

One of the great ironies of our present situation is that the suppression of formal scholarship and traditional academic rigour are often presented as particularly "intellectual" and "academic". Both in teaching how to build and in matters of scholarship, the current situation is characterised by a failure to provide students with elementary knowledge in the hope that ignorance and the uncertainty it brings are going to ensure creativity. However,

uncertainties of this kind are destructive and not creative uncertainties. Creative uncertainty may well be of use to experienced professionals seeking to free themselves from the bounds of restrictive practice or old habits. It is considerably less useful when exercised on a student body, where it is far more likely to generate the sense of disorientation which results from exposure to a field of enquiry without either limits or rules - a vacuum containing no stable platform around which to start to build up knowledge.

The result is an "anything goes" attitude. It is characterised by the belief that even very young students, at the outset of their training, can have fundamental insights about architecture before having studied it, and that any attempt to develop basic skills constitutes an infringement on creative liberty. Students may be led to believe that an idea alone is sufficient to sustain an architectural project. They may be told that a building is a mere vehicle for a cultural narrative, or that a good narrative is to be preferred to any three-dimensional object, let alone a "real" building.

Any systematic analysis of a work of architecture in an attempt to test its value as a proposition about a buildable object to be inhabited by people is dismissed as dull, pragmatic and something not appropriate to such "academic" attention. Consequently, many young architects are considered by their employers to emerge from schools of architecture without fundamental competencies. These then have to be learned in practice, further emphasising the severance of architectural education from the acquisition of professional skills.

This is a situation which needs to be corrected. If it is not, then the architectural profession will become an increasingly marginalised and impotent sector of the building industry. The commonly-voiced student

apprehension that "it's really going to be dull out there compared to being in school" will increasingly become a self-fulfilling prophecy.

What is needed is an alternative vision of architectural education. It is necessary to reconsider what role undergraduate education should play in the discipline of architecture and thus to clarify the role of the schools for students, members of the profession, the public and colleagues in the wider building industry.

Human needs

The starting point in structuring the educational process should be that people inhabit buildings, and that the skill of the architect is in making these buildings in such ways that they meet a full range of human needs. This view requires that architecture should be seen as a profession dedicated to the creation of built objects for the use and enjoyment of people. Architecture is founded in the act of building and does not primarily relate to the field of cultural studies. (The need to use architecture to express things should be emphasised. One is reminded that Matisse said that "he who wants to dedicate himself to painting should start by cutting out his tongue".)

This is not, of course, to say that works of architecture are not cultural artefacts, or to deny that they are proper subjects of cultural analysis. It does, however, insist on their primacy as complex material objects in the real-world life of people. They are not being built as cultural statements but to be used, lived in and enjoyed.

For generations the discipline of architecture has been considered to consist in endowing buildings with qualities of commodity, firmness and delight. Issues of "fit" - both to human activity and to material reality - are essential ingredients of the definition. The development of skills in the creation of useful,

enduring and beautiful objects should form the basis of an architectural curriculum.

Buildings are three-dimensional objects which must meet certain material criteria in order to exist at all. The proposition that they are "texts" should be seen as a contrivance, and the view of buildings as means of communication is true only in the secondary and limited sense that all objects are capable of being associated with some ideas. If buildings are not primarily texts, then it follows that techniques of literary criticism and textual analysis are not of great value in the critiquing, much less the making, of architecture. They are mostly useless and at times pernicious.³

In any case, the devices of literary criticism are likely to be better suited to the analysis of genuine narratives than to three-dimensional objects in space. This is not to say that narratives cannot be constructed about buildings. However, the "narrative" which one can create about a building is often an arbitrary representation of something which has a discrete, palpable and, it could be argued, essentially more important and more satisfying reality inherent in its three-dimensional material being. It is this inescapable materiality and spatiality which is architecture.

The opinion that knowledge about how to put a building together is detrimental for students' creativity should have no place in schools of architecture. One should nevertheless be aware of the danger of excessively expanding the teaching of construction into studio to the detriment of other aspects of design - curriculum in studio teaching should be there to help specify individual learning targets, including targets related to construction and function, for each individual project.

This ensures that future graduates gain fundamental competencies while at the same time leaving a substantial segment of studio time to be dedicated to the work on creative aspects of design, with particular emphasis on formal issues, such as spatial relationships, composition of spaces, the visual consequences of different combinations of material, light and shade and so on. The understanding, appreciation and control of the spatial and material aspects of a work of architecture, its scale, proportion, form, colour, texture and so

on, should constitute the central objects of teaching in the studio.

In order to operate successfully in studio, such a programme needs support from other segments of the educational process. The teaching of visual communication, for instance, must emphasise the development of students' ability to think three-dimensionally and imagine visually their designs. The model of teaching visual communication as a mere combination of drafting, CAD and free-hand drawing class is insufficient.

At the moment there exists a tendency to present architectural history to students as a field of cultural studies, often based on narratives. If the discipline is going to be of use for future designers, it needs to be taught as the study of good examples from history of works of architecture understood as architectural objects, ie by studying spatial composition, relationships between different combinations of forms, the history of formal problems of design, and so on. Thus students can develop models for the development of their own formal-creative abilities.

The problem with the lack of curricula, so common in studio, has also affected the teaching of history and theory. Too often students are not presented with general surveys of these areas of study. Instead, the schools offer specialised courses. Students may perform well in these but never pick up a sound general overview of the field.

The model in which students freely choose between a number of highly specialised courses has been imported from humanities departments. Reliance on this model means making the general professional education of architects at the national level dependent on the particular interests of one or two tutors. If schools want to ensure that their graduates become well-rounded professionals, general survey architectural history and theory courses in lower years need to be mandatory.

Balancing act

When it comes to architectural theory, general survey courses are irreplaceable in providing students with balanced views on theoretical problems. It is vital that students during their education get a survey of different arguments through the history of architectural theory and

their logical implications. Sooner or later, every practitioner faces specific design problems. If they are not taught the theoretical implications of these problems, it is more than likely that they will approach them in a naive way.

The integration of work experience and academic programmes must also be seen as a vital part of a good education in architecture.⁴ While one cannot assume that proficiency in practice is in itself any guarantee of a good understanding of the educational needs of students, there are nevertheless powerful arguments in favour of having a significant number of practising architects among the staff who deliver the programme in studio. It is also important to insist that students acquire work experience as an essential part of their progression through the course. Indeed, work experience should form a core part of the educational process. It is remarkable how work in practice enables students to construct a framework within which they develop strong ideas about their own educational needs, both as students and as incipient practitioners. These ideas contribute greatly to the culture of a school of architecture.

One of the reasons why the professional education of architects cannot be left to what young architects might randomly learn in office when they graduate is that schools should not work with the intention of merely providing obedient servants for the industry and rapacious developers. Rather, they should provide knowledge which will prevent future architects from becoming ripe for uncritical exploitation and will instead enable them to be competent critics of inhumane building practices. It is important that young architects receive the knowledge which they need to act as critics of current practices and which will enable them to work on the introduction of regulations that will benefit those using the built environment.

The issues described above are not intended in themselves to define a balanced programme of architectural education. Such a task would require a far longer argument. It may be, however, that a greater integration of what one might call the "problems of practice" into schools of architecture would enable students to graduate with confidence that they know what the job of the architect is,

and that they are reasonably well-fitted to start carrying it out.

It would also serve to remind students that the practice of architecture is a vocation essentially involved with the shaping of technology to serve people, people whose needs must always be central to an architect's preoccupations. A work of architecture is not like a work of art, created perhaps in response to the world but independently of it. It is instead tightly interwoven with the lives of a myriad of people. It is this, more than anything else, that makes architecture the most humane of disciplines.

[footnotes]


1. There is an interesting discussion of this issue in Paul Acland, *My Opinion for What it's Worth*, unpublished and undated paper, University of Auckland School of Architecture. In it he remarks, p13, "design studio must once again become the core of the architectural education. This will only be achieved if changes are made to the studio programs so that they become a pedagogy of all architectural

education and not just a forum for architectural discourse." He continues, p21, "students feel that studio is not equipping them for a career as an architect. [They see] many of the studio programmes as an environment full of opinion within which they feel vulnerable and uncomfortable not all of design is invention and it is important that knowledge is taught and discussed rationally with the student."

2. This situation occurs in other countries too. Alan Brookes said of British schools of architecture in *The Architect's Journal* of 8 June 1995 that "many schools are taking on recently qualified part-time tutors, often without significant experience of practice, who are reliving their own educational experience. There is a need for tutors to have a source of good modern detailing to enhance the knowledge they impart."

3. Anyone with an interest in the language and much of the content of post-modern thought, and in their exposure, could do worse than read *Intellectual Impostures* by Alan Sokal and Jean Bricmont (*Profile*, 1998).

4. In the October 1989 issue of *Architecture NZ* Ian Athfield is quoted as saying, "I think architectural education tends to be elitist and self-oriented to the point where designers design buildings in the first instance for themselves, secondly for the client and lastly for the people most affected... [Graduates] expect the glamour job - designing - without having done the hard slog of learning how to put buildings together... Without doubt the best students, whether they are ethereal or practical, are the students who have had some time during their... course in offices. They will... have balanced their own feelings against the practice of architecture."

He stresses the merits of "teaching design by talking about construction. A good knowledge of materials - their qualities, their strengths - is necessary before they can be used in building." 

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