Weighing up the Competition International Student Design Competitions as Benchmarks of Quality

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BUILDING KNOWLEDGE

The standards used to evaluate student work and programme performance should be organised not so much around blocks of knowledge as around modes of thinking: the discovery, application, integration and sharing of knowledge. (1)

In its attempt to define a framework for a more constructive dialogue between architectural education and practice in the United States, Ernst Boyer and Lee Mitgang's work also seems pertinent to wider international concerns about the objectives of architectural education. More particularly, those pertaining to the relationships between notions of architecture as intellectual *discipline*, (theoretical, scientific, artistic, philosophical, or otherwise), as professional *practice* and as *representative* of wider socio-cultural values. In the schools, much of this discourse has traditionally revolved around myriad strategies for "integrating" various scientific, technical and sociological topics into the design process. However, experience has shown that simply introducing more information and/or knowledge into the design process does not, in itself, ensure "integration, application or sharing of knowledge". Nor does it ensure "good architecture".

ODIOUS COMPARISONS

In beginning to consider ideas and methodologies that might address the concerns identified by Boyer and Mitgang - and partly in acknowledgement of the current propensity of educational institutions to evaluate, measure or rank the performance of individuals and faculties - we also sought to orientate our studios beyond the immediate theoretical preoccupations and evaluation standards of our own school. Thus, we began to consider the potential of international design competitions to offer some other, distinctly architectural, measure of performance – a "bench mark", if you will, for "good architecture".

A preliminary review of competitions aimed at the profession identified a distinction between *project* competitions - where there is an intention and commitment to build - and *ideas* competitions, designed to stimulate discussion. A similar review of student competitions also indicated two, broadly analogous, groups: The *programatic* competition. These usually identify and/or prescribe specific programs, criteria, materials and even types of drawings within the competition briefs. Typical examples include the various annual competitions promoted by ACSA. These are frequently co-sponsored by manufacturers or other industry associations seeking to encourage innovation in the use of specific materials or techniques. These programs can provide a framework within which to guide students through the particular phases of the design process. The rigidity or looseness of the framework will depend on circumstance but, in our shared experience, comprises an important part of design teaching, particularly in the earlier years of study.

The *conceptual* competition. More abstract, thematic or idea-based competitions - like those sponsored by Japan Architect/Shinkenchiku, for example. Typically, there are few or no restrictions on the scope, context, type, programme, media or format of the submitted works. Each participant is expected to articulate his or her own philosophical position relative to a notional theme. These competitions – effectively predicated on a presumption that students have already acquired sophisticated conceptual and presentation skills - are arguably more appropriate for experienced upper-school students or young professionals.

COMPETING VALUES

One of the most common criticisms of academia in the training of architecture students is the lack of practical, case-based experience which would prepare them for the real world of architecture. (2)

Writing in *Competitions*, Amy Gardner acknowledges the inevitable separation of idea and realisation for both students and practitioners (who produce drawings for others to realise). Her critique also implies a definition of the "real world" of architecture as a place where projects achieve a high degree of (formal and technical) resolution. She goes on to identify other issues - such as clarity of communication, adherence to time factors, real client input and civic values - as valid *real-world* concerns. A further suggestion is that case-based projects allow students to be introduced to the process of design-in-practice. Much of this goes against the grain of recent trends – within our own school and elsewhere – that isolate "conceptual" concerns as the essence of architectural design. (3). At the same time, influential voices within the profession have – partly in response to internationally well-publicised examples – increasingly promoted the idea that architectural design competitions promote and produce "good architecture". While there is little hard evidence in support of this (by no means unanimous) view, the image of competitions as midwives of enlightened and innovative architecture remains embedded in the imagination of many in the profession. (4)

One of our underlying propositions is that the same level of creativity, intellectual rigour and commitment must be applied to the development and resolution of an architectural idea as to its conception. Thus, the requirements of the competition project must be at once simple enough for students to reach the design development stage, yet complex enough to require the interrogation of a range of potential techniques for realisation. Projects based on building type can similarly facilitate a more structured exploration of relationships between programme, form, material and technique. After consideration of a number of possibilities, we identified several student competitions reflecting the teaching and research interests of the authors (construction, materials, detailing, thermal environment and designing with light) and/or those which have emphasised particular material, technical or environmental themes as principal criteria for overall design excellence. Although we selected competitions predicated on an exploration of a particular material or technology, we aim to establish a process in which materials, construction systems and environmental strategies - while important in themselves - nevertheless remain the means by which to achieve conceptual design objectives. Thus, while the studios have been concerned with what some may refer to as integration - they have also emphasised this requirement for architectural excellence. Our objectives were thus;

- to consider whether international competitions can make a contribution to design studio methodology and evaluation.
- to explore whether competition-based projects can serve to stimulate imaginative connections between broad conceptual ideas and the methods by which these might be applied or realised;
- to encourage discussion of the relationships between form, material, technique, environmental issues and representation;
- to encourage the sharing of knowledge through team work and student-centred peer-review; and
- to investigate how the success or otherwise of our efforts might be measured or evaluated.

COMPETING STRATEGIES

We will illustrate and explain the competition studio methods using three projects.

ACSA/ Otis Elevator Company International Student Design Competition for Urban Housing 1996/97.



Fig.1. Urban Housing, Auckland, New Zealand, by: Andrew Greenslade, Hamish Gunns, Susan Hillery, Chris Lowe

The competition called for a design that integrates new mid-rise housing and ancillary facilities for approximately 1,000 residents into an historic or redeveloping urban setting. Particular attention was given to site-specific issues, such as scale, climate, cultural responsiveness and sustainability in the selection of material and construction techniques. This complex program was chosen on the basis that it addressed not only our teaching and research interests but also crucial strategies for the future growth of Auckland. (Currently low-rise, low-density, suburban housing models dominate local building practice).

As in the "real world", timing was a very important issue; all the more so since the competition schedule was set by a northern hemisphere academic calendar which did not fit with our own timetable. Thus began the process of adapting our conventional studio methodologies to competition strategy. We offered the studio as a special (unprecedented) summer school open to all years. A structured 12-week program was established and clear aims and descriptions of each part - including the scale and type of drawings required - were set out in the studio brief. Students were positively encouraged (although not strictly required) to work in teams. The illustrations (will) indicate typical development of the process.

We were aware that ACSA competitions attract large numbers of entries and the first selection stage is often the most critical. We were also aware, from our own experience of professional competitions, that this stage is often more a process of elimination than positive selection. Entries that do not clearly address competition criteria are rejected. Since competition requirements were strict, we emphasised that each entry must directly address the specific issues outlined in the brief and evaluation criteria, including (but not limited to) the required drawings. From the beginning, particular attention was given to format and presentation techniques. The studio program was much more tightly structured - less open-ended, less speculative, probably more constrained - than our normal. Students became more conscious of and more engaged with issues of clarification and refinement of ideas; self-critique; selection and editing of proposals.

In the studio, the constant awareness (both within and between teams) that they were doing a competition rather than "one more design studio" was, in itself, instructive. Several students struggled with group dynamics and the exhaustive discussion and revision this method of working often entailed. We scheduled a "final" jury before final presentation drawings were done and two weeks before the competition submission was due. Guest critics were selected as much for their competitions experience and presentation skills as their knowledge of design. The aim of the critique was not only to evaluate the project but also to generate and/or clarify ideas for final presentation. The winning team of four third-year students (an unusually large number to be working together, particularly at this level) remained a coherent group - in spite of the constant struggle with each other's ideas. If anything, this pushed them further than if they were working alone. Carefully following the brief, initial raw energy crystallised into an excellent project. Moreover, the insistence on strong, clear presentation skills allowed this project to achieve the graphic impact so vital in big competitions. In a competition that attracted 2,343 student participants, representing 209 schools from 52 countries around the world, this team won the first prize for the Asia / Australia / Oceania region and third prize over all regions.

It is one of the very few schemes that actively address the issue of climate, utilising (elevator) technology in a very non-standardised way. Although the system of moving balconies poses some practical difficulties in terms of resident co-ordination, the underlying idea of opening the building up quite literally is remarkably innovative in terms of technology and overall strategy. (5)

Encouraged by this success we ran a few more competitions, learning about the process of competitions in parallel with the students. Nevertheless, while students gained the confidence to work in, what can be, a dauntingly competitive environment, the competition studios have not always produced work that has won awards at the international level. However, four projects were subsequently, and successfully, entered into an annual national competition for design excellence in unbuilt work, open to both students and the profession. (6)

The Alvar Aalto Centennial City Library International Student Competition 1998

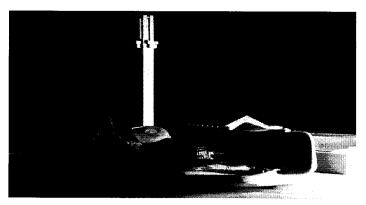


Fig.2. Seinajoki Library, by: Jonathan Coote, Timothy Fairweather, Andrew Lamb

The competition called for a new library in an existing urban complex designed by Aalto. In the second phase the authors of the winning scheme were to be invited to form a partnership with an architect of their choice to develop the ideas in sufficient detail to provide the basis of a real commission. The brief also emphasised those "real world" factors identified by Gardner – a "real client" and "civic concern". (7) Notwithstanding, entrants were invited to "push aside typographical constraint and provide Seinajoki with a 'gateway project'.... adopting modern technology". The project illustrated – by Coote, Fairweather and Lamb – took first prize in the 1998 Cavalier Bremworth Awards. The jury noted that "the clarity of graphic presentation, clear structural solution and careful use of daylight made this project architecturally quite beautiful." (8)

ACSA/Wood Products Promotion Council Carl E. Darrow International Student Design Competition 1998/99.

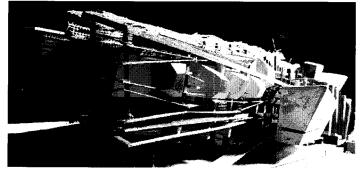


Fig.3. Ground Zero, Meteorological Centre, North Carolina, by: Andrew Mitchell, Hamish Kilford, David Simiona

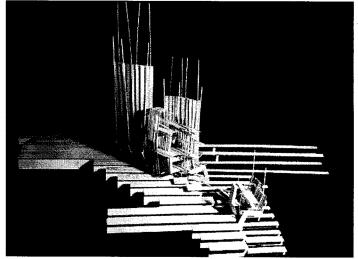


Fig.4. Urban Weather Station, Auckland, by Elvon Young

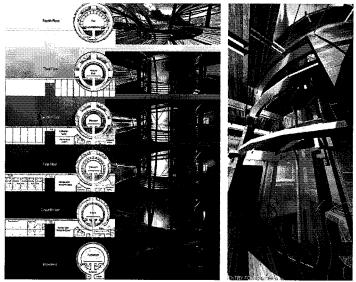


Fig. 5. Ex-closure, Meteorological Centre, North Carolina, by: Peter Alexander, Michael Lin

Another ACSA Competition - for a regional meteorological centre and field station examining the possibilities of *climate* and *material* in the creation of architecture - provided the program for a 1999 studio. Students were asked to design a facility that would enhance the overall understanding of how weather affects both topography and structures in coastal communities. The competition brief required that wood be used as the primary structural material, with special emphasis placed on resource efficiency in both construction and everyday use (including environmental control systems and response to climate). The studio emphasised material innovation and recognised the growing availability of recycled wood and engineered wood products. In addition the competition included a requirement for a large-scale detail that described a furnishing, fixture, or similar detail, in the proposal.

Another major goal of this studio was to make students aware that background research is a fundamental element in approaching any design project - particularly within the current context of ongoing development in materials, technology and information systems. To this end the competition organisers provided a resource package containing information on wood construction, applications and detailing. Students were also encouraged to consider methodologies for collecting, recording and disseminating data on site, climate, materials performance, risk and probability. This studio was effectively condensed into seven weeks to meet submission requirements based on the North American timetable. We feel that this compromised the crucial design development stage for many students. Nevertheless, the projects illustrated were awarded joint first prize in the national Cavalier Bremworth Awards for 1999. One of the judges, Japanese architect and former Morphosis associate, Kiyokazu Arai, commented:

My first reaction was to be impressed with the standard – and in some cases the sheer quantity – of work produced by these students. It is obvious that exploration and invention is still alive here. (9)

COMPETING INTERPRETATIONS

While there has been considerable interest in the merits of professional competitions little has been written on the educational value of student competitions. Our own experiences have highlighted a range of concerns. For many students, the opportunity to test their skills against those of their peers is irresistible. So too is the opportunity to establish a reputation, an addition to their resume or simply to win some hard cash. For others, the competition is less about winning, but rather seen as an opportunity to explore, clarify and communicate a strong theoretical, material or rhetorical proposition. For participating students, the major learning benefits that they themselves identified were; (10)

• the "excitement" that came from working on a competition project;

• an evolving appreciation of the structured design process; not only as a response to the tight time frame, but also as a way of providing a framework for research into material and technique. Others mentioned the competition structure as a useful way of focussing energy and developing a philosophical direction in their work.

• developing ideas simultaneously at a variety of scales and levels of detail; this was particularly marked in the ACSA competitions, where it is usually a requirement of the brief to develop ideas to a larger scale. We see this as an opportunity to use material and technique to bridge idea and resolution.

• the experience of working in a team; whilst there were perceived disadvantages, these were usually outweighed by benefits (of shared resources, division of labour resulting in a more "complete" project and the team as a forum for interaction, constructive criticism and supportive peer-review).

the feeling that they were doing a "realistic" project; and

• the awareness that their work (while often engaging with local concerns) would be evaluated at a global scale; several participants also mentioned the value of publishing winning projects.

To some extent, the selection of a particular competition in itself established - or at least suggested — possibilities for connecting broad conceptual ideas and the methods by which these might be realised. The focus on a particular material and/or technique and/or real-world issue - in so far as each is a given, integral to the design process and not added or appended to a completed concept - created the conditions for focussed, yet inventive, exploration. While we aimed to construct bridges between concept, resolution and communication, we endeavoured not to lose sight of the main aim to encourage innovative and excellent architecture. While the particular focus of the studio encouraged simultaneous discussion and development of formal, material and environmental techniques, it quickly became apparent that it was the very fact that these were competition projects that inspired and motivated many students. Others saw a contradiction between setting out to win the competition and/or attempting to solve the problem set out in the brief.

The building-type (as opposed to more thematic or abstract) basis of the competitions allowed us (albeit arguably) to claim an objective basis for testing and developing design propositions. The ensuing discussions around the relationships between creativity, form and resolution led us to identify the design development stage as crucial. While many students professed a lack confidence in this area, most problems in fact arose when the concept was weak and/or did not address major programatic issues. Our own insistence on the importance of design development was supported by competition requirements for clear and engaging communication in the form of detailed drawings and/or models. This allowed us to focus on developing what students had identified as the essential components of their project.

While we initially encouraged team-based design in order to address issues of knowledge sharing, our experience has suggested that students working in teams and sharing skills and knowledge can achieve a higher degree of resolution of complex programs than we might normally expect of individuals. This was not solely for reasons of numbers. The more polished and more complete presentations were clearly greater than the sum of the individual contributions. In our own school, almost all studios teach design as an individual endeavour. Yet research has consistently suggested that the activity of design today requires a broad range of skills and knowledge characterised by complexity, fluidity and collaboration. Interestingly, while we have stated our preference for structured, building-type based competitions, our students have had similar success rates (in terms of international benchmarks) in "ideas" competitions, often as individual participants. Our research continues in this area. While some competitions, do not limit the number of entries from any one school, others (e.g. ACSA) do. In such cases we selected entries based on internal evaluations. To date, in both categories, there has been a very strong correlation between internally highlygraded projects and those premiated in competition. It is also significant that the quality of projects has been recognised outside the confines of our own institution and, indeed, academia in general. National competitions - open to both students and the profession - have been important in this regard. (11)

For many academics however, competitions are too limited in focus, reliant on the fickleness of judges and overly concerned with presentation formats at the expense of exploration. For such critics, including those from our own school, studio methodologies and evaluation criteria are insufficiently defined. Conversely, others have expressed concern that competitions-based studios are little different to "normal" studios; some work is good, some less so. This perhaps begs the question of how the outcome of any architectural design studios within schools might be comparatively evaluated. Studies of how design quality is measured within the profession have highlighted similar concerns. Nevertheless, many commentators assert that despite differences in style, technique or methodology, professional awards juries tend to produce broadly reliable judgements of what is good. (12) Moreover, as schools generally have become more concerned with evaluating, rating, differentiating and marketing their performance within academia and the profession, sustained success in competitions will increasingly be presented as indicative of a school's design, academic and cultural capital.

NOTES

- ¹Ernst L. Boyer and Mitgang, L. Building Community: A New Future for Architectural Education and Practice. (Princeton, NJ: Carnegie Foundation, 1996), 65-66.
- ²Amy Gardner, "Students Designing for the Real World". *Competitions*, (Fall 1996): 34.

- ³Heylighen, A. & Neuckermans, H. Walking on a thin line between passive knowledge and active knowing of components and concepts in architectural design, *Design Studies* 20 (1999): 211-235.
- ⁴Dillon, D. ^ePlaying the competitions game," Architectural Record. v.185, (Nov.1997): 62-7; Strong, J. Winning by Design. (Oxford, UK. Butterworth Architecture, 1996).
- ³ACSA/Otis Jury comment, Proceedings of the ACSA International Conference, Berlin. ACSA Washington, DC. (1997): 217-223
- ⁶Cavalier Bremworth Annual Architectural Awards for Design Excellence in Unbuilt Works, Cavalier Bremworth Ltd., New Zealand.
- ⁷Amy Gardner, "Students Designing for the Real World". *Competitions*, (Fall1996):34.
- ⁸Tom Kovac, Cavalier Bremworth Awards, presentation speech, Auckland, October 1999.
- ⁹Kiyokazu Arai, Cavalier Bremworth Awards, presentation speech, Auckland, October 2000.

- ¹⁰Srdja Hrisafovic, Student Evaluation of Courses and Teaching (SECAT), University of Auckland, unpublished survey,1997; Charles Walker, interviews with participating students, March 2001.
- ¹¹Other recent competition-based studios are illustrated by the following projects; Shinkenchiku/Central Glass International Design Competition 2000; Shinkenchiku/Central Glass International Design Competition 1999 2nd Prize; Shinkenchiku/ Central Glass International Design Competition 1998 3rd Prize; Shinkenchiku/13th International Membrane Design Competition 1998 3rd prize; UIA/UNESCO Urban Housing for the 21st Century Competition 1999 Supplementary Prize (awarded in lieu of the official prize because New Zealand is not a member of UIA); Japan Ceramics Association International Design Competition 1998, Two Commendations; *The Leading Edge* Design Competition for Sustainable Schools, USA, 1998 Two Merit Prizes;
- ¹²see for example, Judith R. Blau, Architects and Firms: A Sociological Perspective on Architectural Practice, (MIT Press, 1984), 93-5; or Magali S. Larson, "Architectural Competitions as Discursive Events," Theory and Society 23 (1994): 469-504.