

Artichokes and Ginger Beers

“When engineers and quantity surveyors discuss aesthetics, and architects study what cranes do, we are on the right road.” Ove Arup, 1980.

As anyone who’s involved in the construction industry can attest to, engineers and architects don’t always see eye to eye. Without necessarily resorting to stereotypes, it’s that old chestnut of form versus function, and both parties obviously approach their building projects with very different agendas and from different backgrounds and perspectives.

Ultimately, it’s often the architect who wins out. Years after all the structural analysis, design, and headaches are forgotten, the finished building will still stand as a tribute to the *architect’s* vision. The structural engineer’s blood, sweat and tears, still dripping from the complicated detailing and connections, will all be concealed behind the walls, falsework, and ceilings. Does the engineer feel unloved? Possibly, but that’s a story for another day.

Notwithstanding the stereotypes and the (mostly) good-natured ribbing that both professions throw at one another, both architect and engineer are essential to any significant building project. The ultimate success of a project, which can be measured by many different criteria (e.g. end-user satisfaction, timely completion, avoiding construction cost blow-outs, and public perception of the building) can often depend entirely on how effectively the engineer and architect work together in their pursuit of both the common goal *and* achieving their respective individual objectives.

Despite this common alliance and the symbiotic nature of their relationship, it seems the gulf between engineers and architects, or at least their mutual understanding of each others’ requirements and philosophies, is widening. Whilst architectural fashions constantly evolve, there is currently an increasing trend and demand for more open, support-free space and structures. And yet the engineer is constantly being pressured to come up with cheaper, thinner, invisible and more cost-effective solutions. Needless to say, both pursuits are rarely mutually compatible. Forgive the pun, but it seems a bridge needs to be built.

Enter the Partridge Partners Prize. Conceived by Harry Partridge of Partridge Partners, consulting structural and forensic engineers, the prize is a competition open to university architectural undergraduates in their fourth year of studies. Four universities (Sydney, UNSW, UTS, and Newcastle) currently participate in the competition.

As part of their fourth year design project, students are asked to explore the intimate relationship between structural engineering and architecture. In developing their designs, the students prepare a submission with display boards, a written report, a model and a spoken presentation. The prize is awarded to the design that best –

- illustrates how the structure has helped influence the architecture and vice versa;
- indicates a strong collaborative effort between student architect and engineer;

- shows how the usual structural “constraints” have been addressed and/or overcome.
- demonstrates creative innovation in the use of materials.

A cash prize of \$2,000 is awarded to the winning entry, and \$500 is awarded to the runner up. Judging is by a jury consisting of university staff members, an RAIA member, and representatives of Partridge Partners.

The response from the architectural community to the award has been very positive. The architectural faculties at each of the participating universities have embraced the competition and it now forms a component of the students’ fourth year assessment. The four best submissions (one from each university) are subsequently exhibited in Tusculum, the home of the RAIA, and are displayed at the same time as the University Medal and HPA Mirvac Awards.

Partridge Partners is a small structural consultancy based in Sydney that has an unusually high ratio of projects that are heavily architecturally driven. With a strong workload in architect-designed, high end residential housing making up 50% of the business, Partridge Partners is also strongly associated with the visual arts and film community, providing consulting structural services for display and performance events, sculptures (notably the annual Sculpture by the Sea display at Bondi Beach), film sets, major event ceremonies (e.g. the Olympic and Asian Games), and so forth. These endeavours all share the common theme of being highly visual, artistic structures where the load-resisting skeleton often needs to be minimal.

It was both in undertaking these special projects and in their daily dealings with architects that the directors at Partridge Partners saw the opportunity to foster and grow a stronger link with the architectural community. Director Eamonn Madden explains: “Our respective education processes leave a bit to be desired. Engineers spend four years at uni deeply ensconced in the maths and sciences with little, if any, training or exposure to architectural design. Similarly, architects are graduating with tremendous appreciation of form and visual perception, but it seems the supporting structure is sometimes viewed as a necessary evil. Graduates from both sides then enter the workforce and are immediately expected to work together in perfect harmony. One of the main intentions behind the prize therefore was to encourage architects to consider and *celebrate* the structure, rather than look to disguise it.”

Harry Partridge, who is himself an affiliate member of the RAIA, was delighted with the enthusiasm of the students and the quality of the entries when the Award was first run in 2006. “We were pleasantly surprised at how well the students cottoned on to the tenets of the competition and captured precisely what we were looking for.”

Now in its fourth year, the prize continues to gather momentum and do precisely what it was intended to do – to build a bridge between the architectural and engineering professions. Several of Partridge Partners’ staff have given presentations and lectures at the universities, and they regularly participate in and attend RAIA-run events. The co-operation and understanding between the two tribes is already being realised. As one architect recently asked at a co-ordination meeting....“Would you like columns with that?”

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