

Commandments for Collaboration.

The architects role in the Porirua Covered Walkways Project

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This paper is prepared for the Sept'96 conference of the Lightweight Structures Association of Australasia. It examines the changing role of the architect and discusses the process of collaboration in relation to designing and procuring the 4100 m² Porirua Walkways tensile structure. The paper concludes with some Commandments for Collaboration, which it is hoped can be applied to re-establish a closer relationship between architecture and industry and make, finally, a better product.

"Architectural achievement is the result of bringing out the best through collaboration"

Ian Ritchie

INTRODUCTION

Porirua City Council used the typical New Zealand procurement pattern for the revitalisation and weather protection of the old city centre mall. The client appointed a project manager, who shortlisted teams of consultants. Each team submitted a fixed lump sum fee for the project, which was defined in outline only. The traditional short listed tender process was used to select the main contractor. The tender prices received were some 30 % under budget, and enabled a second stage covering (about 1000 m²) to be negotiated into the contract. This changed the order of tenderers and the new lowest tenderer was commissioned to undertake the work. The project was delivered three months late within a 10% cost contingency.

For Architecture Workshop, importing a building process from overseas to a building culture that does not stress collaboration as an alternative to contractual hierarchy, there was the cost of unpaid research and development. The client and contractor bore this cost in part only, in delays and associated relative costs.

"From the architect's viewpoint the project has been onerous and expensive for the extra time spent steering the project team towards a level of integration required to achieve this level of sophistication and accuracy. The success of the covered walkways is duly acknowledged here as a positive and encouraging sign that mediocre thinking and doing can be overcome. The warning note is that we will need to find a more secure way of designing and building, such that all parties can walk away from outstanding and innovative work with an equal sense of accomplishment and well being." Prof. Mark Burry, Deakin University, Appraisal, Architecture NZ Feb 96.

This paper is written as a debrief of the above project, in a re-examination of the participants' roles and the collaborations between them. The writing of Ian Ritchie is extremely pertinent to this discussion, and is used as the basis for this paper.

THE PROFESSION OF ARCHITECTURE

Architecture as a profession is new. It did not exist before the industrial revolution and neither did the professions of engineering, quantity surveying, planning or many others that now exist. Renaissance man used the term 'architect' but not in the sense of a profession. In fact it is recognised that the Renaissance artist was often the best practising mathematician/engineer of his day. (e.g Leonardo da Vinci). What gave birth to the profession of architecture?

Was it that the natural evolution of the master craftsman was overtaken by new materials, new techniques and production methods? A new role that provided leadership and overview was required and because of the increasing complexity of building production it could not be as 'hands on' as previously.

The architect took the overview role in the same spirit as the Renaissance man, but by beginning to distance the mind from the practical application, i.e. the skills of the craft, began a process of social hierarchy in the realisation of architecture: mental skills combined with overview allowed

the separate development of ideas, the direct discourse with the client and the establishment of the professional. Over time this has led the profession of architecture to distance itself detrimentally, not only from industry but from the end user.

The education of architects has reinforced this. It has distanced architects from others who one by one have formed their own institutions. These institutes have become too xenophobic for the benefit of the environment as a whole, and none is capable of taking a sufficiently wide view of the many and complex issues involved. This fragmentation cannot be sustained if we are to achieve real improvements. A unified central organisation made up of the 'professions' but also, for example, economists, poets, landscape artists, has been suggested. This central organisation would draw on expertise from all areas of knowledge about our built and unbuilt environment. Good architects have always required leadership and overview skills and it may be that bringing together a new Centre for the Environment as suggested by Ian Ritchie might redefine architecture's overview role for the new millennium.

COLLABORATION

As we know, the process of architecture is always collaborative. Working relationships are established between consultants. It is important to do this with people who share the same objectives, for example, design quality and similar values. Creative collaboration contains several key ingredients:

- Each must take time to listen to the other and suspend prejudices. This not only allows mutual respect to grow but without it the synergy of mutual creativity cannot flourish; the process is like brainstorming in which nobody can quite remember where the solution came from.
- There are those who feel threatened when another profession speaks their language and questions their assumptions. This is inhibiting to any free exchange. Barriers and defence must be lowered.
- The commonality of aims is usefully complemented by a diversity of expertise.
- There is a similarity between these key ingredients and the concepts for a NZ primary education programme called *Building Team Skills For Life*. This is a teaching resource prepared in consultation with school teachers and the NZ Rugby Union, being trialled now with school children between eight and twelve years old. The programme consists of five chapters: Communication, Diversity, Focus on Solutions, Co-operation, Concentration, and Clear Thinking.

The skills are described and then demonstrated in indoor and outdoor games. One game in 'Focussing on Solutions' is built around the tenet that '*arguing doesn't solve problems ideas do*' (a skill we could have realised more of during the Covered Walkways construction!) The students are debriefed and discuss the life skills and concepts after each activity.

To continue the sporting analogy, has the success of Team New Zealand in winning yachting's America's Cup or the rugby team ethos of the All Blacks any lessons for designing and procuring the building environment or are they simply good examples of successful leadership and focused endeavour? Perhaps it is hard to separate nationalistic fact from fiction, however I understand that the management structure of the America's Cup team is the subject of a research paper.

The principles of collaboration apply at all stages of a project, initially with a client and later with a builder or fabricator. There is a triangle of confidence that must exist and that joins the user, the collaborators, and industry.

On the Porirua Covered Walkways project, the shortlisted tender process selected a main contractor who had no previous experience with the specialist subcontractors. Previous building experiences with prescriptive specifications, traditional hierarchies (we aren't paid to think we are paid to build) and an adversarial contractual approach on tight profit margins were not conducive to the open collaboration required in a performance contract. Although there was talk

of partnering from the main contractor, an uneasiness existed with the integration of the final design cycle within the shop drawing and construction process. How does a contractor price for proactive design discussions to an architect's satisfaction? The linking of the words 'design' and 'build' have regrettable connotations, where design build becomes synonymous with low grade design, promoting pragmatic buildings whose awfulness only favours client budgets. A different process may avoid the expense of promoting new ways of thinking about and making buildings. One procurement mechanism is suggested by Christopher Alexander, a craft oriented US architect. He emphasises construction management contracts that re-establish the feedback loop from the tradesperson and allow design overview solutions to receive vital feedback from subcontractor expertise while still allowing a fair remuneration.

Difference of orientation can generate conflict or be harnessed creatively. The trick to helping this process move in a constructive direction is often found by sticking rigorously to an openminded approach where every one's preconceptions, especially our own, are questioned and we demonstrate a willingness to receive others' ideas and modify our own, whilst at the same time refusing to compromise our design principles and values.

" after all we all agree on that (collaboration)... but talking about it doesn't seem to have much effect. One must somehow create the conditions which will allow such collaboration to take place and one must educate members of the building team to see their own contribution not as an end in itself but as part of a common endeavour to create comprehensive total architecture".' Ove Arup, Institute of Civil Engineers, 26 Oct 1972.

COMMANDMENTS FOR COLLABORATION

The best checklist summary I have been able to find is drawn up by designer Pippo Lioni.

- there has to be moral commitment
- each situation is unique
- the relationship is about contact
- there should be defined rules
- the participants are to be equal, there are no bosses
- we are not competing with each other we are just trying to make something new
- you really have to listen and you have to interrupt and be ready to be interrupted
- there is time together, synthetic time, and there is reflective time when we work apart
- you must respect the common concept as being more important than what you could have conceived by yourself
- the ideas you have are shared : no one can claim them afterwards
- the last and most important thing is that it is about improvisation

As Ove Arup has suggested, this is enough talking about it. We hope that following through this checklist will educate and help create conditions for collaboration to take place on our next projects.

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BIBLIOGRAPHY.

- Burry Mark, Appraisal 'Healing Synthesis' *Architecture NZ* Feb 1996
NZRFU, *Building team Skills for Life* 1996
Ritchie Ian, *Well Connected Architecture*. Academy Editions 1994