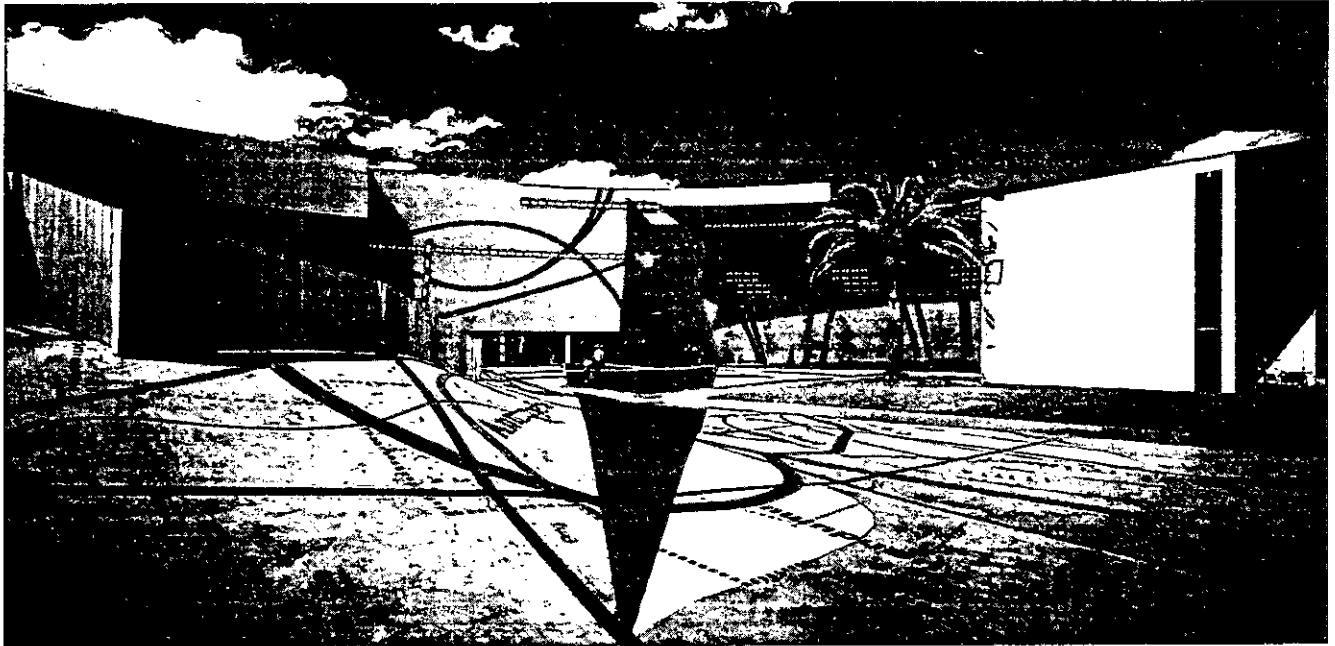




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Project Alliancing:

Delivering a National Icon



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The National Museum of Australia complex sited on the Acton Peninsula on Canberra's Lake Burley Griffin is a new landmark for the nation. The project is also a benchmark example of how a project alliance can produce a positive result for the client. GARY EGGLETON and IAN BLYTH report on this innovative project.

The result of an international architectural design competition, it will incorporate indigenous aboriginal culture and European culture, and it is the first alliance contract between a government agency and the private sector for a public building.

Funded by the Commonwealth Government the development on the Acton Peninsula site comprises new facilities for the National Museum of Australia (NMA), the Australian Institute of Aboriginal and Torres Strait Islander Studies, and the ACT Aboriginal and Torres Strait Islander Cultural Centre.

The winning design, by Melbourne-based architects

Ashton Raggatt McDougall in a joint venture with Robert Peck von Hartel Trethowan, incorporates three individual buildings with differing functions and a garden into an integrated precinct. Ribbon-like sculptured elements traverse the site, symbolically and visually tying the concept together.

The alliance contracting process started after the architects had been appointed. The client, the Department of Communication Information Technology and the Arts, (DCITA) called for expressions of interest in an alliance contract, then short-listed applicants to three and held two-day workshops on the principles and aims of alliancing.

Project alliancing is a relatively new method of contracting that seeks to deliver a cost effective outcome within a set time frame through the project owner sharing project risks and rewards with contractors.

Project alliancing has not previously been used by the Australian government and, according to DCITA not used on a building construction project anywhere else in the world.

Successful project alliancing depends on the skilful management of the particular risks involved, along with a commitment to "best for project" behaviour - from both the client and the commercial alliance partners.

Project alliancing offers potential benefits over traditional construction contracting, but raises new and different risks that have to be managed - in particular determining the appropriate balance between maintaining the spirit of the alliance and protecting the client's financial interests.

Four Quantity Surveying firms worked on the project: Donald Cant Watts Corke (ACT) - Independent QS for the Commonwealth, Slattery (Aust) - Cost Planner for Design Consortium, Property Concept and Management - Cost Manger for the Alliance and Wilde and Woollard (ACT) - Bills of Quantities.

The project was completed within its original budget appropriation and three days ahead of the contract completion date. A quality scoring system was developed for the alliance with reward paid for achievement of outstanding results. A score of 8 achieved (on a scale of -10 to +10). Key subcontractors procured under a 'sub-alliance' arrangement. Excellence Agreement developed with the workforce where

site allowance was paid based on a quality scoring system.

Civil & Civic was the successful contractor and the alliance of the client, builder, consultants and some subcontractors worked to establish a design and construction methodology within the \$150m budget, based on shared risk and profit outcomes.

Specialist museum and exhibition consultants and academics assisted the Department in establishing an exhibition design brief and the very stringent requirements for lighting and air quality, and temperature and humidity controls.

Project Alliancing

Project alliancing can best be described as relationship contracting where there is a focus on teamwork and alignment of objectives to achieve the project outcome.

Unlike partnering, an alliance is underpinned by a contract where there is no blame, no litigation and no ability to unfairly offload risk or derive opportunity through contractual means.

The contract creates an environment where decisions are made on a "best for project" basis, (not necessarily best for any individual organisation) and a leadership team (with a similar role to the board of a virtual

company) is established to assist in making project policy decisions, some of which would normally be dictated or stipulated in a traditional contract.

Key features of a project alliance are:

- Selection of the best team based on capability and ability to perform the task in a collaborative and co-operative fashion.
- Profit is not discussed during the selection process and doesn't form part of the selection criteria. (Profit is determined and negotiated through an open book audit process once the team is selected.)
- An incentive structure is developed and agreed which shares risk and reward equitably between all parties

"It is a process in which the project owner shares risks and rewards with the contractors"

and creates a common motivation for all parties to achieve an outstanding result. A typical incentive structure encompasses cost, time, quality and other measurable performance benchmarks for which a bonus is paid for an outstanding result and a penalty incurred for a poor result.

- All project costs including trade, design, preliminaries, overhead and profit are reimbursed at cost through an auditable open book process with limits established through the cost incentive structure.

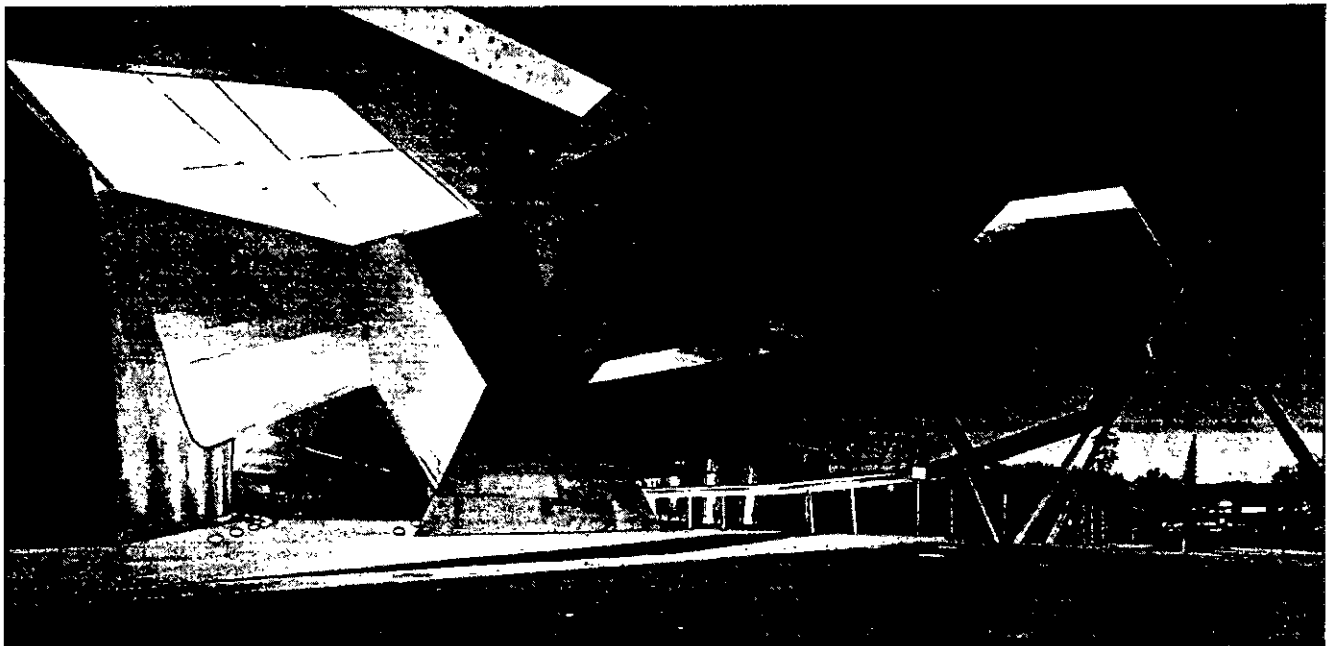
Project alliancing represents an

- Development of innovative sub-contract procurement methods
- Preparation of Bills of Quantities in line with the procurement strategies
- Sub-contract administration

All of these services and more were performed or contributed to by quantity surveyors on the project.

The Site

The national significance of the site is due its origins in Walter Burley Griffin's plan for central Canberra with its land, water and national triangle axis. Acton



opportunity for the quantity surveying profession to become leaders in assisting clients to achieve value for money (not necessarily cheapest upfront cost) on large and complex projects.

Roles of the QS

Some roles and responsibilities of quantity surveyors in a project alliance include independent cost and probity advice, risk assessment and the development and administration of alliance risk/reward incentive structure.

- Other functions include:
- Cost planning
 - Cost forecasting and reporting
 - Participation in the project management team and strategic decision making process

Peninsula forms a key element in the scheme by providing a landscaped edge and setting which visually connects Black Mountain to the lake.

The overall metaphor of the tangled or intertwined threads is represented in the forms of the ribbon canopies, pathways and other landscape devices, and in the plan forms of the National Museum of Australia (NMA) building itself.

The NMA has been sited at the end of the peninsula to create a new waterfront element for Canberra. At the heart of the facility is the Garden of Australian Dreams providing a protected outdoor courtyard.

The NMA will combine contemporary exhibition techniques with new media technologies such as a high-definition digital theatre. The exhibition

spaces cater for the NMA permanent collections, the Gallery of Aboriginal Australia as well as for temporary collections from other institutions.

The approach to the design of the interior spaces is away from the 'black box' towards allowing some controlled natural day lighting into the exhibition spaces. The relationship between the circulation and narrative of the museum is an important part of the viewer experience, reinforced by visual connections to the outside by carefully located windows 'punched' through the facade.

Circulation through the NMA has been planned as a continuous circuit through the entry into the Main Hall, onto the exhibition and gallery spaces through The Garden of Australian Dreams and back to the Main Hall with views to the Garden of Australian Dreams along the way.

The Main Hall provides access to all the principle public areas of the museum complex while creating an extraordinary spatial and orientation experience for the visitor.

Other features include the Garden of Australian Dreams and the Australian Institute of Aboriginal and Torres Strait Islander Studies.

The Garden at the heart of the NMA is an interpretive, interactive landscape designed to interest and delight all members of the community. The garden's themes and elements relate specifically to the function of the museum and interrelate indoor and outdoor spaces.

The AIATSI building is sited to achieve both engagement with the site and other institutions, but also to express its independence and significance. Located on the western flank of the peninsula, the building takes maximum advantage of spectacular views across the water to the Brindabellas, while at the same time creating a courtyard garden facing the lake.

Alliance

Contracting Benefits

The alliance contracting has proved invaluable with alliance members providing early input on buildability and value engineering sessions.

The project had an extremely tight construction timeframe with the

National Museum of Australia scheduled to open on 12 March 2001. It was this tight timeframe that tipped the scales in favour of project alliancing to construct the new facilities.

Project alliancing, DCITA believed, would deliver a cost-effective outcome by the client and contractor sharing in the risks and rewards.

The Australian National Audit Office (ANAO) was commissioned to examine the project's compliance with six core principles of the Commonwealth Procurement Guidelines, and the effectiveness of project management.

The ANAO found that the project substantially complied with the Commonwealth Procurement Guidelines and that generally, DCITA had managed the project well to date.

In concluding its report the ANAO stated that project alliancing is a contracting methodology worth consideration by agencies involved in major construction projects - particularly high profile, prestige Commonwealth projects.

Epilogue

The National Museum of Australia open in Canberra earlier this year as a centrepiece for the celebrations of the Centenary of Federation.

The Museum was established with bipartisan political support by the National Museum of Australia Act 1980 following recommendations of the Committee of Inquiry on Museums and National Collections in 1975.

The idea for a national museum had been around since Federation. In 1902 A Plea for a National Museum was made by Mr Arthur T Woodward, then Director of the Art Department at the Bendigo School of Mines in Victoria.

Speaking to the Third General Meeting of the Library Association of Australasia, Mr Woodward said that: "Sooner or later a National Museum will be founded, and it must be clear to any thinking person that no good can come of having a multiplicity of collections,

"It behoves us all to look to it that our money is well spent, and that we get good value for it."

and no central one”.

Mr Woodward concluded that: “It behoves us all to look to it that our money is well spent, and that we get good value for it. The best men (sic) must be put in the best positions, and when the National Museum of Australia is founded let us make sure that its staff have, as far as possible, a free hand to develop their respective departments according to their desire, and so ensure to the future of this vast continent a museum of such completeness and comprehensiveness of range that it may remain an everlasting monument to its founders and a source of living helpfulness to those who shall enjoy its

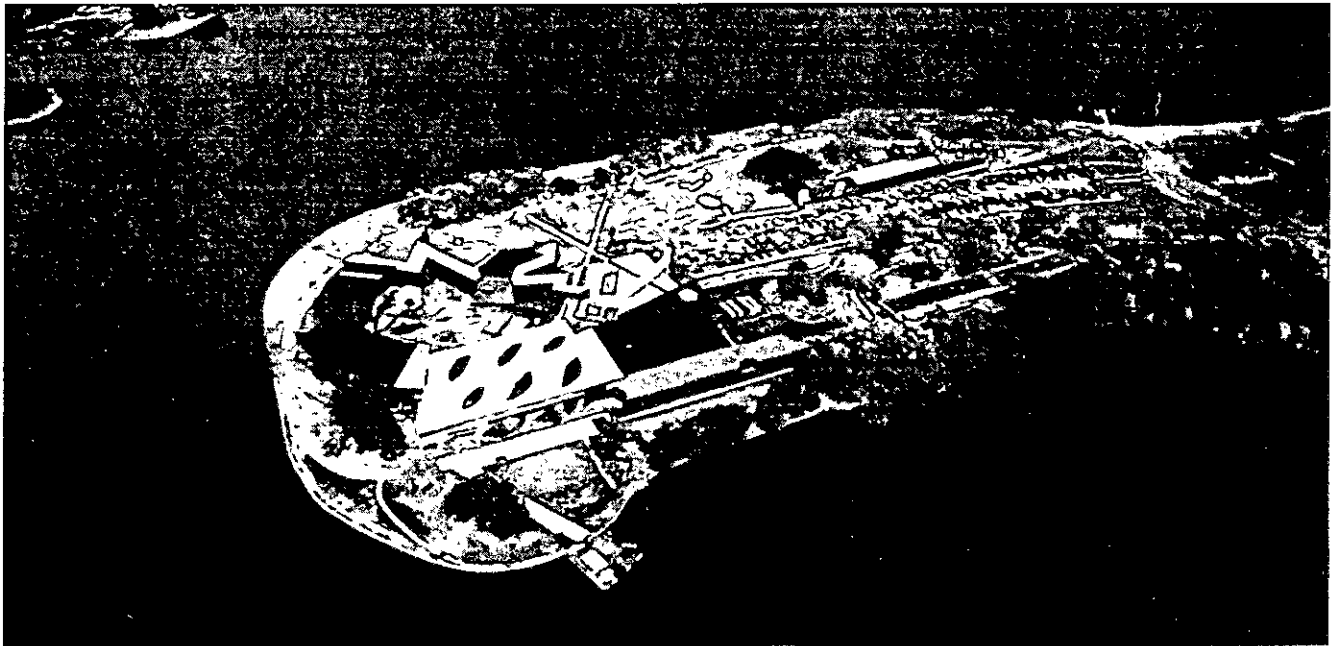
Delivery Method Project Alliancing

Alliance Partners

Federal Government	- Client
ACT Government	- Client
Bovis Lend Lease	- Project Mgr
Tyco	- Services Ctr.
Honeywell	- Services Ctr
ARM-RPvHT	- Architects
Anway	- Exhibition
Design	

Project Quantity Surveyors

Donald Cant Watts Corke (ACT)	-
<i>Independent Quantity Surveyor for Commonwealth</i>	
Slattery (Aust)	- <i>Cost Planner for Design Consortium</i>
<i>Property Concept and Management - Cost Manager for the Alliance</i>	



many privileges.” This writer believes that Mr Woodward would be well pleased with the outcome the alliance partners delivered.

Project Summary

Scope

National Museum of Australian (NMA)
Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)
External Works and Landscaping

Project Budget
\$155 mill

Building Areas

21983 m ²	NMA
6180 m ²	AIATSIS
77704 m ²	Site Area

Wilde and Woollard (ACT) - *Bills of Quantities*

References

Australian National Audit Office. *Audit Report No 34 Construction of the National Museum of Australia.*

CSIRO *National Museum of Australia Complex*

Parliament of Australia Bills Digest No. 85 *National museum of Australia Amendment Bill.*

Gary Eggleton is a partner at Property Concept and Management one of the four quantity surveying firms servicing the National Museum of Australia Construction Alliance.