

**This paper was presented at the ALIA 2012 Biennial in Sydney on 11<sup>th</sup> July 2012**

**Title: An Architect's Perspective – How to encourage genuine innovation in Library Design.**

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**Introduction**

When our firm, lahznimmo architects, first started working at the University of New South Wales Menzies Library about ten years ago, it was symptomatic of so many libraries across the country. It had been developed at a time when the prestige of a library was measured as much on the size of the collection as the quality of the collection. The collection represented the riches of knowledge. The library was the vault for those riches and the librarian was the custodian. For those using the library, there were two ways to read or study. Either you sat in isolation at a study carrel, or you shared a study table with others. But always you sat in silence.

The great unwashed, the undergraduate student, was an unfortunate byproduct of the learning institution that had to be endured. Providing they were relatively quiet, returned their loans on time and treated the collection with respect, they were tolerated.

In the case of the Menzies Library, like so many others, the physical space was finite. So as the collection grew over the years, there was necessarily a corresponding reduction and compromise in student study spaces.

Now the emphasis has shifted back to the user. When existing libraries are refurbished, or new ones built, there is heretical talk of; culling the collection to free up space for people; of allowing people to bring in food and drink, (or perhaps incorporating a café); of allowing people to talk and discuss out loud; of providing furniture so comfortable that people might fall asleep; of removing the loans desk; and the list goes on.

For an architect the modern library is currently amongst the most exciting projects to be commissioned to design. Innovation and '*Next Generation*' are the buzz words. There are three major changes that have impacted on the design of the library;

- The advent of active collaborative and discursive learning, rather than just didactic based learning or private study, with groups of students collaborating in formal and informal groups to learn.
- The revolution in information technology, reflected through the availability of digital information, multi-media presentations, the internet, wireless, portable laptops, tablets and the inevitable long term space reduction of the physical collection due to digitisation of material.
- A shift in emphasis, with the new generation of libraries being experience centred, not information centred. They are a place to facilitate active learning, not just a place to store information.

There is a new design approach and expectation that places a particular emphasis on the quality of the internal environment for the user and requires a variety of spaces to read and study allowing for: social/collaborative peer to peer

settings; reflective settings and seminar feedback settings, as well as the traditional quiet private study space. Varying levels of technology need to be embedded into these spaces, from the most basic of numerous open access power points and wireless enabled, to sophisticated multi-media equipment.

However rather than exploring a first principles analysis of the project, new libraries are often an eclectic assembly of design components that have worked elsewhere, but applied without a coherent framework or strategic intent. Many have the 'look' of a 'Next Generation' library, with a mix of designer furniture and more lively colours and textures, but there is of course more to it than that. There is a cultural shift involved that impacts on every aspect of the library. Without an analytical design process new library designs risk turning into an interior decorating exercise. How can real innovation in spatial design and arrangement be encouraged and achieved?

This paper is not about the design of the 'Next Generation' library, rather it discusses a process for achieving that outcome. It looks at the potential for library design to be part of an interactive design research project between architects, librarians and users where genuine innovation is possible.

As a director of lahznimmo architects, I have worked on both new and refurbished libraries for Universities and local authorities. I reference the refurbishment of the Menzies Library at the University of NSW and the new Helensvale Library for the Gold Coast City Council as very different case studies to explore process in library design. One project being designed and built over a ten year process, the other a new standalone building built from scratch.

## Design Process

Any librarian who has been through the exercise of culling the collection in order to free up space will know what I mean when I say that it can be a touchy subject. Visions or books being tossed into dumpsters can ignite passionate debate and accusations that the library is being dumbed down.

The reality is that the enthusiasm for the new generation of libraries shared by librarians and architects is not necessarily shared by everyone, nor is it equally understood, which is why a library project, be it a renovation or new build, may not live up to early aspirations.

In this paper the process of library design will be explored to show how they can have a major influence on outcomes through an exploration of:

- **The Workshop process:** how a workshop process involving all stakeholders can be used to build consensus behind first principles analysis and innovative solutions;
- **Program:** allowing sufficient time during briefing and design;
- **Challenging the brief:** challenging the brief and understanding intent and aspirations;
- **Management of risk:** you don't have to get it exactly right the first time - flexibility in design and the ability to fine-tune design;
- **Competing aspirations, budget allocation and priorities:** allocating an appropriate percentage of the project budget to what is inside the Library;
- **The Value of Data:** How the library can use data collection and evaluation to keep the project brief on course.

## **The Workshop Process**

Our firm did not invent the Workshop Process, nor do we have a monopoly on it – but we do try and use it on all the projects that we complete. We generally use a three stage workshop process of; Setting Objectives, Reviewing Options and finally, Consolidation of Preferred Option. For the workshops to be successful they need to include anyone who has a stake in running, managing or using the project and who potentially has a role in decision making. Certainly the library management and team leaders must be there, but also:

- Facilities Management,
- Those responsible for cleaning and maintenance,
- Those responsible for security,
- Those responsible for IT,
- In the case of an educational institution, Faculty Heads, Academics, Post-graduate and undergraduate student representatives,
- In the case of a community library, local school representatives, lifelong learning advocates,
- Members of the executive or Councilors
- Chief Financial Officer

If the workshop is too large, then it becomes difficult to manage. If it is too small then it does not generate enough energy to be productive. In our experience between twenty and fifty people seems to work. It is also important that attendees make a commitment to be there for all three workshops, as they become the witnesses to a linear process that builds to a final outcome.

We have been involved in full day workshops, but my own experience is that this is too long. Few people can maintain the level of intensity and concentration to make the time constructive, and it is vitally important that the workshop maintains a consistent pace and energy. It can also be very difficult to get busy people to commit to so much time. So we tend to recommend half day workshops of three to four hours. Ideally they should be in the morning when people are fresh and their minds sharp.

The workshop is not the place to resolve major conflicts or air dirty linen. If there are significant known areas of conflict, then these should be resolved independently. However within the workshop environment minor issues that might derail the project can be teased out and a process of dealing with them enacted. Generally people will tend to be constructive and supportive in the workshop, so civilized discussion and debate can take place.

The workshops can be professionally facilitated, but we generally prefer to facilitate them ourselves. Professional facilitation can be expensive and is more suitable when it is important to have a neutral person controlling the discussion. Professional facilitators may also lack a working knowledge of the library, so discussion can become far too generalized and simplistic.

The workshop setting is critical. It should be a flat floor space with loose tables and chairs and no obvious hierarchy of stage and audience, or front and back. A

tiered lecture theatre is the worst place for a workshop as people immediately fall into the routine of listening rather than interacting. Each table should ideally seat between six and eight people, as these numbers work well for interactive workshop discussions within each table cohort. It is also important to mix up the groups so that each table has a cross section of backgrounds and interests. During the workshop hierarchies should be suspended so that all participants have equal say.

When a workshop runs well two very important things happen. Firstly, everyone gets an insight into all the issues outside of their own area of concern, and conversely, they get a chance to make everyone else aware of the issues that are important to them. Secondly, (and most importantly), the stakeholders become a part of the design process. Rather than just being presented with a completed design, (that they are supposed to enthusiastically support), they become part of the progression. They get to see the design coalesce from analysis, through design options through to an endorsed outcome. By being a part of the process, they are also better able to understand and support an innovative or challenging outcome that perhaps varies greatly from their initial expectations.

The aim is to build a consensus amongst this disparate group of people so that they become the advocates for the project. Any project that is truly innovative will have its critics and it will need broad support if it is to survive through to completion without being pulled in line with safe mediocrity. Everyone expects the head librarian and architect to promote the design, but it is somehow far more convincing when a group of people outside of this clique become outspoken champions. Having been part of a process that has built up the design, workshop participants are able to speak knowledgeably and explain the rationale of decisions made. This will assist in a more informed public debate about the architectural design that for most projects rarely gets beyond aesthetic judgments of “I like” or “I don’t like”.

At the conclusion of the workshop process the library design should have advanced to a point that it is ready to be lodged for Development Application. After that the consultant team can push ahead with construction documentation.

Running in parallel with the workshops should be intensive consultative meetings. These meetings are where the nitty-gritty of the project brief is built up. If the Library brief has already been prepared by another consultant, then it is an opportunity discuss the detail and test the assumptions. Each meeting should be dealing with a specific area or issue in isolation. Ideally they should only involve one or two client representatives who have the authority and knowledge to speak on their particular area.

In the case of the Menzies Library the workshops were structured around the need for change – physical and cultural change. The existing library was tired, out-dated and no longer serving its users. We were engaged to produce a master plan to guide forward refurbishment of the existing building over the coming years as funds became available.

The Helensvale Library was to be an entirely new building replacing a facility that was simply too small to serve the community. However this was to be a new model of development for the Council, where a Community Cultural Youth Centre was to be combined with the library. So the workshops focused on

looking for synergies between the disparate parts that would make sense of their co-habitation.

### **Workshop One – Setting Objectives**

Workshop one is all about aspirations and possibilities, and a lot of listening. The aim is to not get bogged down in the detail, but to think expansively and positively.

We never present concept designs at Workshop one. Rather we will complete what we call an Opportunities and Constraints Analysis. This is a presentation that looks at all the issues associated with the site context such as; planning controls, transport and roads, streetscape and heritage, landscape and environment, adjacent sites and neighbours etc. This kind of analysis assists stakeholders in thinking beyond the project in isolation and seeing it as part of a local built fabric and environment. We might also present a precedent analysis of other libraries which makes for good eye candy and gets people excited about what might be possible.

There can also be an advantage in inviting one of the project sub-consultants to prepare a presentation. In the case of the Helensvale Library we were aware that the Gold Coast City Council had a strong commitment to environmental sustainability, so we asked our ESD (Environmentally Sustainable Design) consultant to talk about the opportunities for the project and how to create a definable ESD project brief. In this case we suggested from the outset that perhaps the library could be mixed-mode, which allows the air-conditioning to be switched on only when it is needed. To begin with there was strong resistance to this idea, especially as it required that the library have operable windows, and a lot of discussions both inside and outside of the workshop was required in order to satisfy the concerns of everyone. However without the platform of the workshop, I doubt that mixed-mode would ever have made it into the final design.

We also like to get one or more of the stakeholders to present their aspirations for the project. Usually this would be the head librarian who is bursting to show and tell about a range of libraries and learning commons that they have visited or are aware of. This was the case at the Helensvale Library workshop where the Manager of Library Services, Marian Morgan-Bindon, presented to the group images of inspiring library interiors and ideas from around the world.

However Andrew Wells, Head Librarian at UNSW, chose not to show images of other libraries, but put the current library into context. He noted that over time space for users had been sacrificed to make room for the growing collection, thus introducing the need for culling and off-site storage. He noted that of the Go8 universities, UNSW library ranked last for seats for users. Seat numbers were so low in fact that comparison was better made with universities that specialize in distance education, as they had fewer students on campus. He then presented a vision for the library that he called 'the Learning Village'. He described the vision in words, not images, and this formed the bones of the 'Aspirational Brief' that I will mention later. He then spoke about how things have changed since the 1960's when the library was first built and why the current library does not serve its users.

There is also a value in getting someone else to present who is not directly involved in managing or procuring the library. For example, in the case of a community library, there can be a very productive relationship developed with local schools. So a presentation from say the head of drama at the local high school could initiate productive synergies that value adds to the core project brief.

We will then hand out the butcher paper and thick textas and pose a series of broad questions for the group to workshop. Each table of six to eight will discuss the questions amongst themselves and then elect someone to present them to the group as a whole. The questions will purposely be very aspirational, the aim being to establish what are the fundamentals that are important to people and that will make the project successful.

The facilitator should appoint someone to take notes during any discussions and then present a wrap-up summary at the conclusion.

## **Workshop Two – Reviewing Options**

For Workshop two we start with a brief summary of the outcomes from Workshop one to refresh everyone's memory. This is followed by a presentation of concept options that have developed in response to the outcomes and analysis of Workshop one. The concepts should still be very preliminary at this stage, no more detailed than massing studies so that judgment on the aesthetics of the architecture does not confuse assessing the relative merits of each strategic approach.

Whilst one of the options is usually clearly preferred, we believe that it is important to show at least three different approaches to the project and to demonstrate the linear development of the design through the testing of alternative approaches. Sometimes the best critique of a design is to compare it to alternative approaches. If the options are presented honestly and clearly, and show that the architects have listened, then it is our experience that the group will tend to arrive at similar conclusions, though with a few qualifications here and there.

The aim of this workshop is to receive feedback on the options and a level of consensus on which option should be pursued and developed. This can be by breaking up into groups again, as in the first workshop, or through an open discussion chaired by the facilitator.

Rarely will the consensus be that there is overwhelming support for the preferred option. Rather there will be aspects of each of the options that seem to better fulfill the needs of the brief. There may also still be dissenting opinions on various aspects of the design, which is healthy at this stage in the design, as it means that people are responding honestly. Providing the architects do not become defensive and continue to listen rather than impose, there is still plenty of opportunity to build a consensus endorsement of the design outcome.

On the Helensvale library, we also developed the preferred option further as a design and presented it as part of the workshop. Although there was a risk in doing this as it can appear that the design is moving ahead too quickly, we had tested the various concept approaches with the PCG, (Project Control Group), prior to the workshop and there was a general consensus to proceed. In this

case it is also important to complete a cost check, as there is no value in having stakeholders fall in love with something that cannot be afforded.

It is then up to the architects to try and consolidate the feedback into a preferred design. Individual meetings may be necessary before the third workshop to try and resolve any sticking points. The aim is to produce a design for the third workshop that the client and architect are reasonably confident will be endorsed by the group.

### **Workshop Three – Consolidation of Preferred Option**

Again with Workshop three we would start with a brief summary of the outcomes of both of the two previous workshops to remind everyone of how we got to where we are.

The developed design will then be presented and discussed. By now the design should be starting to become quite detailed. The other consultants will have had some input and a preliminary cost plan will have been completed to test the project budget. Internal and external perspectives will be prepared and important spaces explored in more detail. The major materials may be presented, though presenting colours in a workshop can be tricky – as no one can agree on colours.

By the conclusion of this workshop we are ideally aiming for unanimous endorsement of the design from the group, even if there are still a few minor qualifications that need to be dealt with.

### **Mini workshops**

There can also be a role for mini-workshops to resolve specific design blockages.

With our most recent work for the Menzies Library we were briefed to reconfigure the main entry and loans desk area. The existing design reflected the traditional bank teller arrangement that we are all familiar with and the library was keen to get staff out from behind the loans desk and break down the barrier that the desk represented.

Numerous options were considered, with floating pod type desks that reduced the scale of the loans desk into a series of individual service points and allowed a spatial porosity, but none of these were quite right. Essentially they were just a series of smaller loans desks. Fundamentally nothing had changed.

The library had difficulty explaining what exactly they wanted as it was something that they had not yet seen. However what we were designing was not it. We did our own exhaustive search for precedents and came to the same conclusion that what was wanted simply did not exist. After going around in circles for a while, frustration started to set in and we were running out of time as the construction tender was looming.

We then proposed a mini-workshop to tackle the problem from first principles. At the workshop we built up the brief from scratch without any preconceptions of what the service point might be. We started with just a person – the librarian – and the clear space around them. Then we unpacked each of the tasks

performed by the librarian one by one and reconfigured them into a new assemblage that coalesced into something that became the Help Zone. I do not believe that we could have arrived at this outcome without the workshop process.

## **Program**

This leads directly onto the issue of how much time to allocate to design. When we are given the initial project program we often find ourselves trying to reorganize it to allow more time for design and briefing. Providing the end date does not move, clients and project managers do not usually have a problem with this providing the reasoning is clearly explained.

The Workshop process described above needs time to run its course. If the design is robust, which it should be if the workshop process is completed properly, then the later stages of the project tend to run more smoothly and efficiently. It is our experience that a design that is rushed in order to meet an abstract program will not meet all the requirements of the brief, and may start to lose the confidence and support of the stakeholders.

## **Challenging the brief**

A good project brief will have two very clear parts to it; a Functional Brief and an Aspirational Brief. The Functional brief is essentially quantitative and lists all the 'things' required in the library and the functional relationship between them. It should be dry and to the point. The scope is generally determined by the client's needs and will need to reflect the available project budget, as it also determines the building scale.

The Aspirational Brief should be qualitative. Without being specific about what the form of the library should be or what it should look like, it should try to explain what is to be achieved and what the vision is.

In an attempt to be thorough, many library briefs are too prescriptive. A brief that is too prescriptive can lock in habitual practices that only serve to stymie innovation. There is a fine line in the art of brief writing - between making clear what is required and telling the architect rigidly how to do it.

It should be part of the role of the architect to question and challenge the brief in order to gain a clear understanding of what is essential and, where appropriate, propose alternatives.

## **Management of risk**

Designing a library is not like buying a car. When you buy a car you expect that everything should work perfectly, and if it doesn't, you expect that the car company will fix it quickly and at their cost. This is because they have made thousands of cars. They have made prototypes, they have endlessly tested and they have an automated assembly line which means that every car will come out exactly as the last.

In contrast every Library is a bespoke design and construction. Even if the architect has designed dozens of libraries, each new library will be different.



Research and the skill of the project team can minimize risk, but not eliminate it. If the Library is to be innovative, then that means that some parts will be designed and built for the very first time and that may involve a level of risk.

However most institutions are risk adverse, so risk must be managed and limited. Prototyping can be an excellent means to test new furniture or spatial arrangements, and it does not have to be expensive. Full scale mockups out of economical materials can be sufficient to iron out unforeseen problems or to satisfy stakeholders and users that what is proposed can work.

Likewise, if the architect is engaged during the construction process to review shop drawings and inspect work as it is completed, then potential problems due to misunderstandings between designer and fabricator can be picked up before it is too late.

The consequences of not getting it exactly right the first time do not have to be disastrous. With interiors in particular, flexibility in design and the ability to fine-tune design post occupancy should be seen as part of the process. After the library is completed, post-occupancy evaluations can highlight parts of the design that are not working as well as they could and that only become apparent after an extended period of use. This is quite separate to the issue of building defects, which the contractor is obliged to come back and fix.

In the UNSW Menzies library we have had the luxury of completing the works in a series of stages over a ten year period. This has given us the ability, in collaboration with the librarians and after feedback from the users, to test ideas and fine tune them over a number of years. Not everything has worked equally well and sometimes minor changes or additions are made after the works were completed or as part of the following years project.

### **Competing aspirations, budget allocation and priorities**

The final decision to commission a new library is not made by the head librarian, it comes from higher up the food chain. The Mayor, the Vice Chancellor, the Minister for Education – these are the people who have the final say. Between them and the librarian are other people who also have a say – the Chief Financial Officer, the Councilors, the Deputy Vice-Chancellors, the Facilities Managers. How each of these people measure the success of the library will vary. A library with a prestigious and iconic presence will please the Mayor, the Vice Chancellor or the Minister for Education, (and quite a few architects). A Library that represents value for money and promotes the institution will please the CFO. A library that is low maintenance and inexpensive to run will please the Facilities Manager.

Not all of these successes actually mean that the library is working well. Superficially a completed library can appear to be a great success in the eyes of the decision makers, yet have missed so many opportunities to be better as a library. As the primary advocate for the library, the librarians must push hard to ensure that priorities important to them and the users are not sidelined. This will mean engaging with the politics of the project and understanding how important decisions are made, and how to influence them.

Of all the building typologies, the interior and fitout of the modern library is fundamental to the success of the library, yet rarely is it properly budgeted.

On most projects a project budget will be formulated based on abstract areas and building costs per square metre before design has even commenced. Within a formulaic approach, the library fitout will be allocated a percentage of the overall building budget based partly on other building precedents, (hopefully library precedents), but also assumptions about how the project budget should be divided up and allocated. However it has been our experience that within these assumptions there will typically be a natural bias toward the building fabric itself, (the structure, the external appearance, the building services, etc) and not the library interior.

This is then exasperated by the likelihood that during the design and building process costs will escalate. Whilst project contingencies may deal with some of the increases, often some form of cost cutting is required. The general rule of thumb is that when the budget gets squeezed, you trim from the fitout and landscape budget. This is because the fitout and landscape are the last to be completed, so are the easiest to trim, and because you only get one chance to build the building. Whereas you can always buy more chairs and plant more trees at a later date.

I would argue that in the case of the library this is flawed thinking.

The library fitout budget needs to be a generous percentage of the overall in the first place, and then quarantined throughout the project. That does not mean that the project budget needs to grow, it just means that the internals need to take a larger slice of the fixed building budget from the outset.

### **The Value of Data**

Most libraries are very good at collecting data about visitations, borrowings, general feedback and services provided; and much of this data is or can be shared between libraries. Data can be a very powerful tool in convincing decision makers to allocate funds for the things that the librarian knows are important.

As mentioned earlier, in 2005 the UNSW Menzies Library was last by quite a margin for numbers of user seats when compared to the other Group of Eight universities. Presenting data like that to the executive not only ensured funding for the library to upgrade, but set a clear benchmark for what should be achieved with that funding – providing more places to study. Since then data has been used to show how visitation numbers have steadily increased since the start of renovations in 2002. Post-occupancy data has also been collected, most recently via published research conducted by Kylie Bailin.<sup>1</sup> All this data can assist in focusing the project brief on what is important. It can also be helpful in countering lingering reservations about whether money has been spent wisely.

### **Conclusions**

The enthusiasm librarians and architects share for '*Next Generation*' libraries is not equally shared or understood by all those with a say in library procurement.

If genuine innovation and project specific responses in library design are to be achieved, librarians, architects and stakeholders need to be part of an interactive design project that explores first principles analysis. Assumptions about how the

library should work and what it should look like need to be challenged and opened for discussion. Research through data collection and precedent study can assist in shifting preconceptions.

A broadly consultative three stage workshop process, where all stakeholders make a commitment to become part of a linear process that builds the library design from initial analysis through to final design, can be a successful forum for procuring an outcome that places an emphasis on innovative library design and building a broad consensus.

In addition to the workshop process:

- the project program needs to allocate sufficient time for design and briefing;
- project briefs should not be too prescriptive and be open for challenge;
- the risk of innovative design can be managed through a combination of methods, including post-occupancy evaluation;
- project budgets need to acknowledge the importance of the interior fitout and allocate a sufficient proportion of the project budget from the start;
- criteria to measure the success of library design will vary between stakeholders and, amongst decision makers, may not include what is most important to the users of the library;
- data can be a powerful tool in setting priorities in the project brief.

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<sup>1</sup> Bailin, Kylie; Changes in Academic Library Space: A Case Study at the University of New South Wales, Australian Academic & Research Libraries Journal, December 2011.