

Is your building 'future-proof'?

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Two very different library building projects now under way have brought home to me what the term 'flexibility' can really mean when applied to library design. It has reinforced my long-held view that, given the right approach and the right resources, we can go a long way towards 'future-proofing' our buildings.

The first project began literally with a bang when bulldozers moved onto the site of a mid-1970s library building and began to demolish it to make way for a bigger and better public library. The second project which attracted my attention was the construction of a building to link with a 1990s university library which had already outgrown its floor-space. The new building prompted a major but seemingly relatively painless reconfiguration of the original library.

What was it which gave the 1970s building the thumbs down and the 1990s building the thumbs up for ease of extension or reconfiguration? And what lessons can we learn which will help us ensure that the buildings we are designing now will have a far-off 'use-by' date?

These questions are more relevant than ever before, with growing demand for public library space in particular, rising construction costs and scarce funds for capital works generally. In some library sectors, too, there are significant numbers of buildings from the 1960s, 1970s and early 1980s which are now ripe for renovation, extension or replacement. We want the new crop of buildings to be as good as we can make them.

The first library I have mentioned was doomed for several reasons. Its ground floor was below the official flood level in the event of serious rainfall — new, more pessimistic flood maps had been issued long after the library had been constructed. Any extension would require ramps from existing floors to the new floor levels and this would limit layout options considerably. And who would really want to have to limit what they put on half of their entrance floor to expendable items just in case there is a flood?

A serious design problem was the lack of a regular module and the placement of solid elements — stairs, a book-hoist shaft, services ducts and internal walls — where they would interfere with new layouts. Add to these shortcomings the tired finishes, inadequate wire management, air-conditioning system on its last legs, poor lighting, non-compliance with the *Building code of Australia* and no advocates for the building's aesthetics. In my mind's eye I could already see the bulldozers starting up.

When it was constructed, the 1970s building complied with all the standards that it needed to comply with at the time. Since then, codes and standards have become more numerous, more demanding and more sophisticated, underlining my frequent advice to clients nowadays: anticipate yet more stringent standards relating to safety and security, floods, occupational health, energy efficiency and accessibility.

At the time that it was first occupied, with photocharging at the circulation desk and well-defined distinctions between functional areas, the building did the job that it set out to do. But it did not look far beyond the initial layout — and admittedly even an initial layout can be hard enough to resolve — to the time when you might want to move virtually everything around. Then you would find, for example, that stairs and load-bearing walls would get in the way. There wasn't really much excuse for ignorance about

library building flexibility at the time. We were familiar with the wisdom of Keyes Metcalf and others on modular buildings and by the early 1970s there were many models to draw upon. Although in the case of the now-demolished library, the message had clearly not got through.

But lessons were being heeded by some clients, consultants and designers.

Flip the calendar to the late 1990s and share some snippets from the design brief for a new university library.

On possible future extensions: 'In developing a design to satisfy the requirements of this brief, the design team must give attention to the ways in which the library will be extended, economically and with minimum disruption, in the future'.

On flexibility and adaptability: 'The interior should be designed so as to be as hospitable as possible to change, as demand and services change in the future. There must be a high degree of flexibility and adaptability, with a minimum of load-bearing walls and columns and a uniform floor loading suitable for library shelving in staff and user areas. Stairways, lifts, plumbing, electrical and air-conditioning ducts should all be located so as not to interfere unduly with the building's flexibility'.

On power and data cabling: 'Services reticulation must allow for considerable future expansion, especially in the increased use of computer-based and telecommunications technology. The most appropriate use should be made of floor ducts, suspended ceilings, perimeter and column ducting, and ducting within partitions, depending on the location'.

Less than ten years after those words were written, the resulting building is being put to the test. An information and communications technology building is being created next to it and there will be some space in the new building for the growing library collection. The necessary link between the two buildings is designed to minimise any impact on the architectural and functional integrity of the original building. The university is also using the opportunity to undertake a major reorganisation of space within the original building. I was going to say that the availability of space has 'enabled' the re-organisation, but it is actually the adaptability of the original design which has facilitated the process. The requirements for what is loosely-termed flexibility, referred to in the brief by an alert client, were successfully carried into the design by a responsive architect and made real in the construction. I would be confident that, a few years down the track when yet further changes are needed, the changes will still be relatively easy to accommodate.

Of course, in any design for a dynamic environment, you can never get everything exactly right — you are working on something which will be in many ways a living and breathing creation, not a time capsule or a mausoleum.

On day one you'll probably never get the proportions of print to electronic exactly right, or the collection growth figures, or forecast how creatively people will use some of the spaces you are creating. But if you have the floor area, the infrastructure and the adaptability — call it flexibility if you will — your building will be better able than most to cope with whatever the future throws at it. That is as near to future-proof as you will ever get. ■