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FLOORING

Timber Flooring- Traditional conservation techniques

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About the Speaker

Hector Abrahams is an architect and a partner in the conservation practice, Clive Lucas Stapleton and Partners Pty Ltd and has been in practice since 1986. He has been involved with a large range of conservation projects including the Sydney GPO, St Paul's College at the University of Sydney, and St Peter's Church, East Sydney. He was awarded the Royal Australian Institute of Architect's Merit Award for the conservation of the large timber house in Woolwich called Wandella. He has particular interest in ecclesiastical buildings and serves on the Religious Property Advisory Panel of the Heritage Council of NSW as the representative of the Royal Australian Institute of Architects.

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Timber Flooring – Traditional Conservation Techniques

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Historically, timber floors are the most common type of floor, and among the worst treated component of historic buildings. This is understandable as they are often worn out and bear the brunt of the larger problems of rising damp, inadequate ventilation, termites, fire and just plain wear and tear. Too often we have seen them unnecessarily replaced outright, destroyed by heavy sanding, suffocated by blocked ventilation and coated with unsympathetic synthetic coatings.

In dealing with timber floors there is no need to depart from the standard conservation practice of assessing significance first, followed by assessment of the structural condition and the amenity of the floor. It is when we depart from this line of thinking that we do the wrong thing to floors (Cross Street Pyrmont).

In this paper, key conservation issues are explained by small case studies in three groups: structural issues, finishes and then some unusual floors. Descriptions are given of the technologies used in each case and the reasons for choosing them.

Structural issues

Whatever the cause of damage, the extent of damage and knowledge of the type of construction is the key to good structural repair. Since European colonisation we have been framing our ground floors in hardwood, at first laid directly on the ground (Treaty House) and, after about the 1830s, properly suspended on plates bearing on sleeper walls with joists spanning the room (Addington). The locally sourced hardwood on the ground floor was almost always shot edged and cut out of a six inch board. The modern system of framing with bearers and joists at 6 foot centres dates from the late 19th century and the introduction of termite caps from, I think, the 1960s. I do not propose to enter into detail on rising damp or ventilation, suffice to say that if they're not there it's the floor that will bear the brunt. On all the floors I'm about to show you the subfloor structure has been either repaired or replaced outright, depending on the amount surviving (Addington). Addington at Ryde, an 1840s house had its subfloor structure entirely eaten out by termite infestation and yet there was still a good amount to save.

First Floor construction almost always consists of joists spanning the room. In their replacement the architectural requirement of maintaining the floor thickness prevails (Jobbins Building).

The same attitude of replacing only what's necessary relates to boards as well. With knowledge of the material and its application it is not a foregone conclusion that everything need be replaced (Lacmalac).

The most extensive floor repair that I have undertaken is at St. Peter's East Sydney. I consider this to be one of the great hardwood floors of NSW. This disused church was purchased by SCEGGS Darlinghurst School for an assembly hall which they call their Great Hall. It was their intention to entirely replace the floor until I argued successfully for its conservation.

In assessing floorboards in a building of any age or size, it is likely that the floor will be a good source of information about the growth of the building and this was the case in St. Peter's Church Hall.

Finishes

Traditionally, in NSW the finishing of floors was a simple reliance with either no finish or the application of beeswax as polish. After the Second World War synthetic plastics were used out of a can as a substitute for polish. Generally, these are not suitable in conservation because they require heavy sanding initially and subsequently to apply new coats. There is concern that they contain powerful synthetic solvents. The simplest finish and one that used to be not uncommon was scrubbing e.g. (Addington) (St. Luke's, Gulgong).

In the long term, floor scrubbing and waxing relies on the building up of soap and natural oils on the one hand, and in the other, wax, in order to arrive at a relatively easily maintained finish. It's this built-in requirement for maintenance that has made the synthetic finishes so popular over the late 20th century.

For some time I have been architect for St. Paul's College at the University of Sydney. This 1850s college quadrangle by Edward Blacket remains as originally used and is subject to enormous wear and tear and regular cleaning. This has led to some practical thinking about finishes.

At St. Paul's College the result is durable, traditional but not glossy.

The attraction of wax polished floors is not only their traditional associations but the ability to give sensational finishes. One of the great timber houses of NSW is Wandella at Woolwich, architect unknown, that was built in four campaigns between 1890 and 1920. The floors of the house tell the story of its growth from the two-room hardwood floored cottage and the later Kauri floors of the early 20th century. Sanded some 20 years ago they are maintained with an exceptional care and the result is quite sensational.

Some Unusual Floors

Strip timber flooring is by far the most common but there are special floors. Most of these are parquet and were used in Australia from the Victorian period onward, usually hardwood glued with bitumen (Silchester) (Redleaf). These floors require special attention. The glues that were used, a practice of tongue and grooving on four sides, the use of unusual species of timber and delicate finishes make their conservation very much in need of a special understanding.

I would mention that most timber floors, in the 19th century at least, were designed to be covered in part or entirely and their conservation should lead to carpeting and other coverings even painting of floors. One could have finished with slides of elaborate carpets and interior fitouts but the best way of making the point that the later covering is very important is to show this example from the Swifts mansion which shows parquet and parquet linoleum.

Conclusion

The major thesis of my paper is that, with a proper understanding of the fabric, conservation can more often follow traditional lines. Even with maintenance needs it is possible to avoid heavy handed tactics such as heavy floor sanding and abide with traditional methods

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*These last two publications were probably authored by K R Bootle