

The Preservation of Old Parquetry Flooring.

Ivan Kirton, We Love Parquet Wood Floors.

I think all Heritage floors, Parquetry and Floorboards should fall into a conservation space of special rare building features to be preserved more strongly than other aesthetic design items like cornices, skirtings or archways, which can be readily replicated.

Parquetry wood floors are a tangible and significant part of Australian interior design history. Heritage parquetry floors are examples of how people lived in those times, and the aspirations of homeowners and governments of yester-year.

Have you visited an old building or area and imagined how the people of that time must have lived?

Walking around a 15th century castle in Germany, like the guys from Berger Siedle have done recently, would definitely evoke interest about the people that lived there, how they lived, and their customs and traditions.

We live our modern lives but never really stop to consider that our customs, traditions and habits were passed on to us from earlier generations. How we live is actually millions of passed down traits, experiences and culture, that probably go all the way back to early mankind.

Those earlier generations left traces in our culture and tangible physical objects for us to look at now. Hardwood Flooring being one of those.

In 200 years from now, people in Australia and New Zealand will most probably live quite differently to us, and they will also visit places and buildings to 'imagine' how we are living right now.

In 2223, the preservation of heritage flooring will no doubt be as culturally important as something like the Palace of Versailles.

This is just one reason why it is critically important to preserve our history, look after our present, and add in meaningful ways to our cultures and traditions – and this includes flooring!

How would you classify a heritage floor?

A heritage car must be at least 30-years-old... For me, I would say a floor that was installed over 50 years ago, is a heritage floor.

Then again, it might be hard to argue that an old mosaic floor in a small apartment is a heritage floor, and needs to be conserved for its historical value.

In this article, I will talk about our oldest Parquetry floors, because that is my specialty; however, we all know that probably the very oldest wood floors in Australia and New Zealand would be hardwood T&G floorboards in heritage buildings.

(Send us in your images and project details of your floorboard or parquetry restoration work for a future feature on this!)

Heritage Parquetry flooring in 2023 means any floor that has been constructed with a block parquetry – usually a tongue and groove system – and has been adhered using bituminous adhesive, or face nailed onto a board.

The repeating parquetry design popular in the early 1900s is a particular aesthetic. That is the flooring installed in a **Herringbone** pattern – with a wraparound border, usually of a variety of timber 'ribbons' of various species (native timbers) and widths that follow the perimeter of the rooms, along with blocks of parquetry. Other examples include squares, and border details that show the skill of the installer and the ability of the manufacturer.

Timber species used in Sydney are English Oak, Jarrah, Brush box, Tasmanian Oak and others. In floorboards, Kauri Pine, Rimu Pine Tallowwood, Jarrah. Those of you from NZ, please let us know your oldest native New Zealand species.

I am constantly amazed when inspecting these floors at the workmanship involved and the pride our forefathers took with the craftsmanship of these floors.

Popular in flooring design features from the early 1900s, parquetry has been perhaps the least understood wood flooring system in the construction industry. Today we are seeing the destruction of historically significant parquetry floors during restorations of important buildings, both residential and commercial. The drive to constrain expenditure should not override the value of preserving the artisan work of past generations.

Often old hardwood floors are removed to make way for cheaper, imported or easier to maintain floors, and we witness a degradation of the historical significance linking the space – the people who frequented the space and the erasing of our industrial heritage; the colonial struggle to become a modern society.

Historical Background

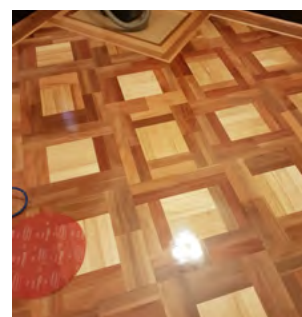
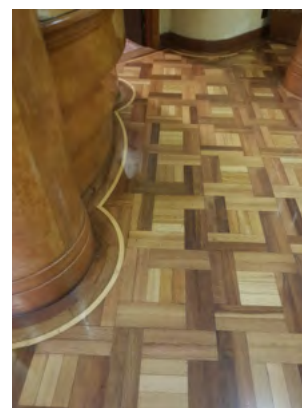
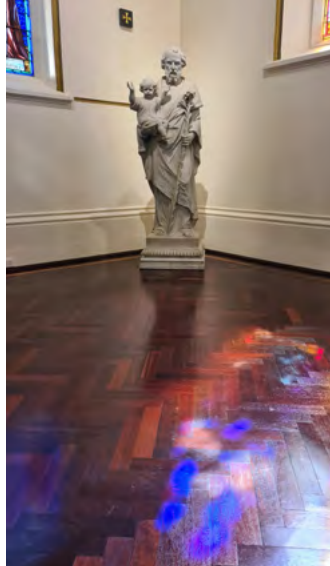
Parquetry wood floors came to the fore in the early 1900s in NSW, with the Government of the day constructing a number of significant buildings in Sydney. Most include the earliest forms of parquetry flooring known to exist in Sydney.

(Please let us know of historical examples in your city!)

In Sydney NSW examples include:

- The Art Gallery of NSW
- The State Library of NSW
- The Post Office building in Martin Place
- The Commonwealth Bank building, Number 5 Martin Place.
- St Vincents College Chapel

As well as many apartment buildings and private residences where there are some wonderfully well-preserved examples of early parquetry manufacturing.



Construction Methods For Parquetry Flooring And Structural Issues Evident

Heritage Parquetry flooring includes any hardwood floor that has been constructed with a tongue and groove system, and has been adhered using bituminous adhesive. These floors are extremely rare. These hardwood floors will have a limited lifespan, and become rare for four reasons:

- 1. Sanding**
The flooring being sanded over the years will reduce the lifespan of the floor, rendering the tongue and groove system structurally unsound at the point of sanding. Floors in this situation are in danger and need special care.
- 2. Over sanding**
Leading to lack of surface material onto the top of a groove joint, making it weak and easy to flake or break off along the length of the block.
- 3. Incorrect maintenance**
Wet mopping the floor, allowing the floor to be damaged by untreated water ingress, and not applying maintenance oils regularly enough, are all things that can happen every day to a well-used floor and can result in damage.
- 4. Adhesive**
The bituminous adhesive will deteriorate and become ineffective as an adhesive.

continued »

The preservation of old parquetry flooring continued

100 year old Floating Floors

In most cases with heritage parquetry flooring, the adhesive will have given up, and is no longer holding the parquetry to the substrate. The T&G construction of the parquet will be holding the floor together, effectively stitching the blocks together into a 'floating' structure. This is not to be deemed a defect, only a natural factor in examining these parquetry floors, and needs to be worked with as a fact of the age of the floor and not a structural defect.

Preservation Methods for Parquetry Flooring

The methods of preservation of these special floors comes down to three important factors: The inspection of the floor; the repair or replacement of the floor; and the sanding and lacquering.

Preservation methods for repairing parquetry flooring, an overview

1. Parquetry in commercial spaces will need patch repairing very often in a construction situation.
2. Removal of the total floor and replacement with a new version should be considered as a last resort and not desirable in most instances.
3. Just because the floor is deemed 'loose' or not adhered, does not condemn it to be removed.
4. Repairs to be ascertained and measured for replacements.
5. The repair/ replacement parquetry blocks should be milled to the correct size, usually in the imperial dimension.
6. Material is to be selected primarily on the basis of correct species and grain structure.

7. Colour variances between new and old floor are to be addressed by wood staining methods, using suitably experienced operators once sanding has commenced and before/ or during the lacquering process.
8. Gaps are to be considered acceptable.
9. Nail holes and other damages of a small nature are to be considered part of the patina of the floor.
10. The floor is to be completely covered with suitable protection like Supaboard or RAM board while other trades do their work.
11. The rarity of the floor should be respected and the delicate nature of the floor needs to be conveyed to the tradesmen who work on top of it.

Preservation methods for sanding parquetry flooring, an overview

1. Check the lifespan of the floor by inspection of the blocks, and the thickness of the surface material in multiple areas.
2. Avoid sanding the floor aggressively with a course grit paper.
3. Use a 60 or 80 grit sandpaper, as it will gently remove the surface finish, rather than excessively digging down into the wood.
4. Time should be taken to protect and ensure the valuable lifespan of the floor is not impacted.
5. Sand with the lightest grit sandpaper that is practical, even if this takes longer.
6. Do not fill the joints or gaps, as they are historical features of the floor.
7. Colour matching of new and old flooring is a critical part of the restoration.

8. The final finish should be one that can be maintained over time, with an oil-based buffing oil finish like Rubio Mono-coat, Synteko hardwax or Loba Impact Oil recommended as most suitable due to the ability to be refreshed with maintenance oil over time.
9. The lacquering of the floor needs to be done carefully, as mistakes in this area could result in re-sanding the floor, which will reduce the lifespan of the floor.

Safety when working with heritage parquetry floors

Heritage parquetry floors have been adhered with Bituminous Adhesive (also known as Bitumen, Pitch or Black Japan).

The material looks like black tar, and can be brittle, soft, or dusty. It is important to isolate the material so as not to breathe in dust, or particles from the adhesive, or allow it to touch the skin or eyes.

This kind of adhesive will become pulverised with time underneath the parquetry and hence will turn to a fine dust which should be treated like asbestos.

Apart from heavy metals, the dust will have amounts of Benzo A Pyrene, which is a mutagen, meaning it can mutate human cells.

You will need to wear gloves, long sleeved shirt, long pants, P2 mask, and goggles when handling this adhesive material; including the parquetry if you are pulling it up.

Isolate the workspace as best you can to avoid others being contaminated.

The dust is toxic, and you will need to think about how you will deal with the dust on your clothes at the end of the day.

It is always a good idea to have the material tested if you are worried or are working with the material for long periods of time.

continued »

Practical ways we can preserve floors of heritage value

No doubt when a heritage floor is present, as professionals we are able to easily see if it is a rare or old hardwood floor.

We have all experienced situations onsite, whether residential or commercial, where it is easier and cheaper to remove old floors than restore them.

Here are some possible ways of doing our part to preserve historically significant floors:

- Talk to the homeowner about practical ways of saving the floor.
- Talk to the architect and builder about the same.
- Find out about the historical significance of the floor, and discuss with the interested parties. Do some research about the building and when the floor might have been installed.
- Come up with ways of saving the floor that could be cost-effective.
- Suggest repairs as opposed to removal.
- Find ways to promote the restoration rather than removal of the floor.

Examples Of Heritage Parquetry Flooring

In 2022 We Love Parquet were involved in the restoration and wood sanding of a large heritage parquetry floor in St Peter and Pauls Cathedral in Goulburn NSW.

The cathedral was built between 1870-1891 and is heritage listed in NSW.

In 1927, the cathedral underwent renovation and Jarrah hardwood parquetry floors were installed.

The interior has been described as follows:

"On entering the Bourke Street door, the visitor beholds an unbroken space of 141 ft long by 33 ft wide. On either side of the nave there are aisles 75 ft by 14 ft, the aisles being divided from the nave by slender moulded columns of Victorian bluestone from Malmsbury. An

arch at the end of the aisles opens into the transepts, which are 33 by 30 feet. A corresponding arch on the opposite sides leads to two small chapels. The roof is sealed with wood divided into bays, and under the principals there are large traceried spandrels of timber resting on columns with caps and bases, these again resting on moulded corbels, all done in keen cement. The ceiling between the principals is divided into three panels, with a different description of wood in each and again relieved by beads and scotias of other and different woods." (Carolyn Cox)

The floor is extremely rare and is an excellent example of the types of parquetry flooring being manufactured and installed from 1912-1930s. To give context, a number of state government buildings were being built around that time such as the Post Office building in Martin Place, the Art Gallery of NSW heritage section, and the Commonwealth Bank building at No. 5 Martin Place, which has a remarkably similar floor.

The cathedral floor presents as an excellent surviving example of single species herringbone parquetry.

There is an unassuming block border to the perimeter which has the Tasmanian Oak species. The floor species is Jarrah and the floor is a tongue and groove. It is an Australian manufactured hardwood parquetry floor in imperial block size.

The adhesive used is bitumen. The bitumen adhesive has mostly given up and has been pulverised into a fine dust that will, if ever exposed, need to be isolated and treated like asbestos. The floor will need to be vacuumed regularly to remove fine particles that could come to the surface of the floor.

The scope of works was to remove vinyl tiles, mill parquetry blocks to size and repair flooring in all areas of the cathedral.

We also repaired and lacquered all the pews in the cathedral, which was quite a job; and sanded and wood-lacquered the floor in two stages with a modified oil - which was a task as the overnight temperature was 2 degrees.

Overall, we flooring professionals have a responsibility to preserve and maintain rare and heritage floors. Let's ensure that future generations look at the floors we are doing now with the awe with which we regard our old floors.

Have you worked on heritage flooring, either Parquetry or Floorboards before?

How old was that floor? Did you play some part in saving the floor?

Send us your project details and some images for the magazine! 

