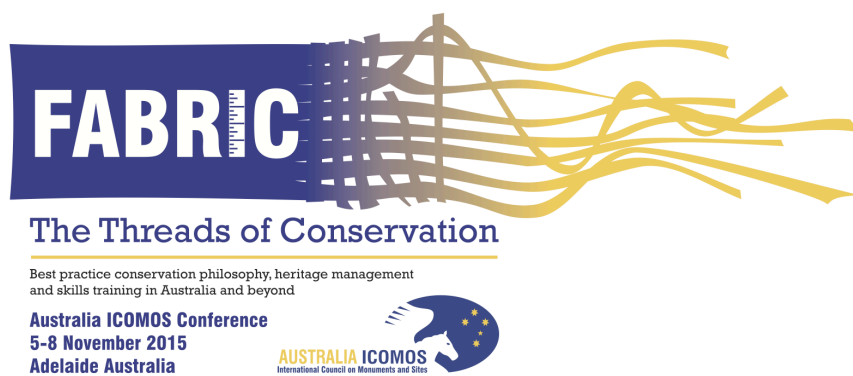


# Conservation of the Old Parliament House Feature Windows

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Proceedings of:



## **Conservation of the Old Parliament House Feature Windows**

### **Introduction**

A national icon, a place of great beauty, magnificent design and historical significance, Old Parliament House (OPH) was the home of Federal Parliament from 1927 to 1988. It was here that key decisions were taken that affected the lives of all Australians and continue to shape Australia today. The Museum of Australian Democracy (MoAD) has its home in this unique and iconic building, the significance of which is recognised on the National and Commonwealth Heritage lists, along with the Australian Institute of Architects (AIA) Register of Significant 20<sup>th</sup> Century Architecture. As custodians of this unique heritage building we are committed to protecting its heritage values and sharing its stories.

When Commonwealth Architect John Smith Murdoch was given the task of designing Provisional Parliament House the Federal Capital Advisory Committee dictated that ‘the external architecture would be simple, but decorous’. From the first the building was only ever expected to last for 50 to 100 years and there was a stated wish that the building not turn into an architectural jewel that might preclude later demolition. Demolition never happened and the building is now a national icon, symbolising the spirit of Australia’s democracy. For nearly 90 years the six bronze ornamental windows on the northern front façade of Old Parliament House have faced the harsh climatic conditions of Canberra. They have received little attention apart from minor running repairs and are in largely original condition.

**"The work reflects credit on the crafts- men of Australia."**

The front façade of OPH represents the building’s classical influenced style, symmetrical massing around the city’s planning axes, and Garden City ideals. The feature windows

reinforce the verticality across the two storeys, and feature the Greek pattern detailing seen across all of the building's exterior and interior design.

The Chief Architect John Smith Murdoch was involved with the planning of Canberra and designed many significant buildings in his long career with Queensland Department of Public Works and later Commonwealth Department of Home Affairs and the Federal Capital Commission. Murdoch was instrumental in the design and construction of the Provisional Parliament House, under Director-General of Works Colonel Percy Owen.

The main front doors and feature windows were designed by Murdoch from the architect's office in Melbourne in December 1924 and were fitted the following year in October 1925, 18 months before the opening of Provisional Parliament House (NAA 1924). The frames were manufactured in Sydney and transported by road to Canberra to be fitted and glazed. The work was completed quickly in less than 2 weeks supervised by Thomas Cookson who travelled to Canberra representing H. & E. Sidgreaves to fit and glaze the windows. The feature windows were considered solid, durable, and artistic in keeping with the design of the building, and the work was praised as a credit to 'the craftsmen of Australia' (Murray 1925).

H. & E. Sidgreaves were a family shop fitting company with a workshop established in Surry Hills Sydney in 1917, and later moved to a factory in Redfern from the early 1920s. The company specialised in window fronts and interiors for department stores, retail shopfronts, commercial, and public buildings and they are still in the business now known as Sidgreaves & Co (Sidgreaves Group 2015). There are several buildings identified by NSW office of Environment and Heritage, and local government heritage listings, and Australian Institute of Architects, that have Sidgreaves Shopfronts; two leadlight window shopfronts on William Street in Bathurst; and a shopfront at 56-78 Oxford Street Darlinghurst, and another at 135

Enmore Road, Enmore, Petersham Inn Hotel. The Paragon in Katoomba recently listed on NSW State Heritage Register has a Sidgreaves 1925 shopfront and interior fit out. The building consists of four shops built in 1909, two of which were refreshment rooms known as The Paragon, which was refurbished by H. & E. Sidgreaves including copper clad shopfront windows, and display cases at the front entry, and surrounding leadlight shopfronts. (Jack 2013, NSW OEH 2015; AIA 2013;).

Aside from OPH the examples of Sidgreaves work from the 1920s are generally smaller scale commercial buildings, and while the materials and techniques would have been similar, they generally don't resemble the appearance or scale of OPH feature windows.

### **The anatomy of a window**

Murdoch's detailed design plans of the 'Circular headed windows' and main entrance windows don't shed much light on the wood and cladding structure, and were not found in the Archives (NAA 1924) until near the end of the project. This meant the conservation approach depended on investigative work to ascertain the existing fastening methods used and then determine the most appropriate treatment.

The windows consist of 6 large copper alloy-clad, timber windows, and one smaller central window located above the entrance portico. There are four large arched windows located at the eastern and western ends, with two rectangular windows located on either side of the main entrance portico.

Each of the 6 large windows incorporates 5 distinct segments (numbered from top to bottom 1/5 – 5/5 –see Figure 1). Each segment then consists of either 3 or 4 individual windows or

decorative panels. Some windows were originally designed to be operable while others, especially the larger central panes, were fixed in place.

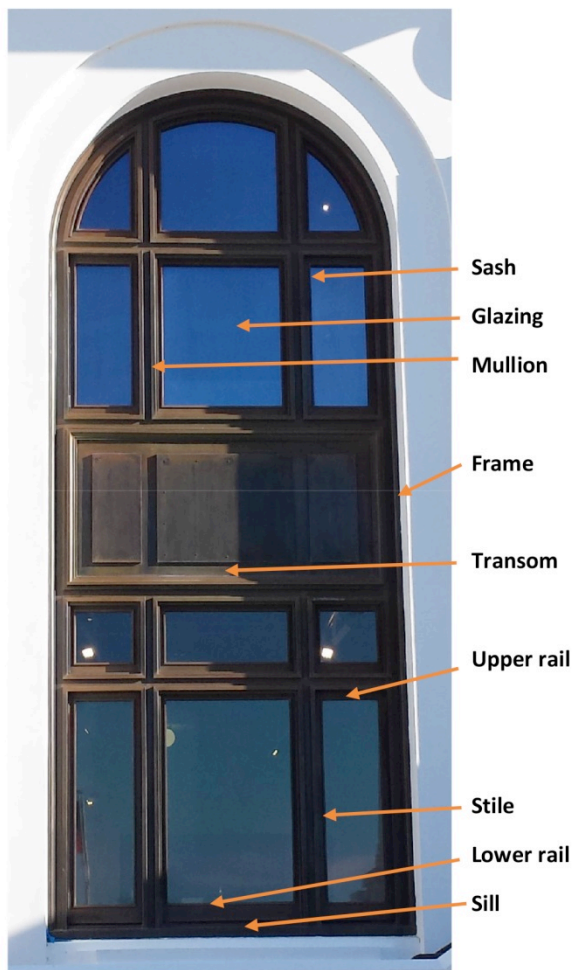
All windows are constructed from timber (blackwood, *Acacia melanoxylon* stained with various hues, and coated, primarily with shellac), with a copper alloy cladding forming the facade. The cladding incorporates straight and curved mullions, straight and curved storm moulds, flat panels, straight transoms, and the outside frame. All sections are designed to interlock and overlap, creating a system that sheds water downwards.

The windows were designed and built with the timber and copper alloy as an integrated unit, i.e. the copper alloy was not just installed as a façade over existing timber windows. The opening timber windows are made from laminated timber, and have spaces in the corners to allow for contraction/expansion and potentially to assist with water egress. The copper alloy has been designed to interlock and overlap, so as to create a system that prevents water ingress, and enhances water shedding downwards. There were very few direct fastening points of the copper alloy to the timber, with most of the fastening relying on a tight fit between the copper alloy and timber, and with the copper alloy sheet nailed in a few locations where it wraps around the timber formwork. The 2012 condition assessment (Sydney Artefacts Conservation 2012) noted the presence of a yellowed adhesive which may have formed a part of the original bonding system. Where there were seams or joins in the copper alloy these were joined using solder, and probably heat treated from the front and pushed into place. The central decorative panels (Segment 3/5 –see Figure 1) were originally attached using soldered nuts; thread attached through a timber panel, which in turn was attached to a timber sub-frame and the masonry behind. These nuts were ‘headed’ against the masonry by lead knobs.



**Figure 1.** Nomenclature for segments of the arched and rectangular windows.

The original 1920s glazing panes which have now been kept and re-fitted, are polished plate glass formed by a process of casting and rolling sheets that are then cut into sections and annealed and polished. Glass safety standards have changed and plate glass is no longer compliant with current building standards. A current assessment of glass across OPH will recommend a strategy for addressing safety compliance that will most likely result in the application of film to secure glass in the event of accidental breakage, and any new glass would be laminated safety glass compliant with current standards.



**Figure 2.** Anatomy of a window

### **90 years in the sun and the rain**

While there has been little apparent maintenance the windows are still in reasonable condition, and there is no evidence of significant leaks or major water damage. A condition assessment of the six windows (not including the portico window) was conducted by Sydney Artefacts Conservation in 2012. This found that:

The main issues are that some of the trims are separating from their backing substrate (presumably due to adhesive [solder] failure) and causing misalignment of elements most obvious at the mitre joints. The 3/5 segment of solid panels appear to have been tampered with the most and many are loose, poorly aligned and their patinas are variegated. The caulking on all windows is deteriorated and requires replacing. There is over paint and white splotches all over the windows from them not being protected

when the surrounding render has been painted. The patina of the frames all over is uniform on some and very variegated on others (Sydney Artefacts Conservation 2012).

All of the windows were covered in an accretion of paint dust and significant numbers of paint spots, and a number of spots of render, which have accumulated over the life of the building as the façade was repeatedly painted. The ingrained dirt and the paint covering had significantly dulled the patina of the copper alloy, particularly on the central decorative flat panels that were quite uneven and discoloured. A number of the vertical elements of the copper alloy had become separated from the copper backing where failure of the mitre joints lead to water ingress causing rot and delamination, and had provided a refuge for insects (primarily wasps) to nest.

In a few of the windows there had been some small movement of the building itself, which has in turn caused the twisting of lower mullions, subsequently compressing the frame and making the opening sash window extremely tight and difficult to operate. There has been some convex movement of the overall window out from the building, leading to a gaps inside the window and in the copper alloy trim, particularly where the transom sections are attached to the copper alloy main panels.

The original fastenings of the central (Segment 3/5) decorative panels had all failed, and it is likely that this occurred not too many years after installation. In some cases the corner sections of the panel itself were broken and had been repaired using solder, which has subsequently broken again. The panels were generally loosely attached and ill-fitting, with large (up to 10mm) gaps along the edges, leading to water ingress, and subsequent further degradation of the timber backing board.



## **Renewed and cherished**

International Conservation Services (ICS) was commissioned by OPH in April 2015 to undertake conservation treatments to the seven copper alloy clad windows on the front façade, along with two painted coats of arms (Australian and British), bronze coat of arms (Australian), and sixteen copper alloy light fittings.

This work followed an extensive 5 year external paint and render project that recently finished on the front façade. ICS worked with heritage glazier Rick Allen on the windows as we recognised that in order to faithfully and authentically conserve the windows we needed a skilled tradesperson who understands the traditional glazing structures and methods and was committed to honouring this in finding conservation solutions.

The treatment undertaken can be separated into two areas: structural and water-proofing; and copper alloy cladding treatment. In repairing the structural and water-proofing issues the principle taken was to implement solutions that provided the least amount of intervention, whilst resolving the water-proofing issues, and stabilised or repaired the various loose or damaged elements. No new penetrations were made and existing penetrations used only where needed. Original elements were retained and stabilised wherever possible – this applied in particular to the original timber windows and timber backing boards of the central panels. There was consideration given to re-soldering various aspects as this was how the window was originally constructed, but we considered that these would most likely fail again in the near future. A sealant with adhesive properties was considered the best solution as it could be sourced in a suitable colour, provided a flexible seal, provided a reversible adhesive solution that wouldn't affect the copper alloy, and has well-known longevity.

The principle used in applying the sealant was to infuse mitre joints and other open joints at the top and sides of the window sections, and to leave the bottom-facing joints unsealed. The new sealant should prevent the ingress of any water into the structure of the window, but if it does get in then it should be easily shed.

For the glazing, a standard putty was used to replace the existing failed putty, and was coloured with a reddish-brown oxide to match the copper alloy patina. There was evidence that the original putty was coloured similarly but has since dried out and turned white. The original glass was retained and re-used.

The central copper alloy panels were removed, and in nearly all cases the timber behind was replaced with marine ply. One exception to this was for window WA5, proper lhs panel, where the original timber and some original fastenings were evident, and the timber was still serviceable despite suffering some previous damage (See Figure 3). In replacing the copper alloy panels original screw holes were used but the screws were replaced with new brass, domed, slot-head screws, patinated to match the copper alloy façade. The copper alloy panels had the corners repaired by cleaning off old solder and gluing back into place using the sealant. The entire panel was then reattached using the screws, and sealed using a fine bead of sealant along the top edge and down both sides. The bottom was left unsealed to provide an exit point for moisture that might get into the section.



**Figure 3.** Original backing board on window WA5, proper lhs, segment 3/5.

In conserving the façade the goal was to achieve an overall even appearance across the windows. There were considerable discussions around whether a patination treatment should be applied to attempt to achieve this. It was decided to trial cleaning the façade first and then re-assess. In the end the cleaned façade provides a relatively even finish, whilst maintaining the original patina. There is still some unevenness in appearance, particularly on a few panels but this has been ‘softened’ considerably by the cleaning process. It was generally agreed that any application of patination chemicals would need to be applied across all surfaces, and there was potential for any existing unevenness to actually be exacerbated as the patination developed over time. For these reasons patination wasn’t applied.

The copper alloy was cleaned with an initial wash with 1.5% v/v non-ionic detergent in water and wiped off with clean rags. The a soy gel chemical paint stripper was applied using cotton rag and rubbed off after 20-30 minutes using a white 3M abrasive pad and cotton rags, and rinsed with warm water. Controlled abrasive cleaning using 3M abrasive hand pads with

different levels of abrasion was used in combination with the soy gel, taking care not to remove patina and expose bare copper alloy. The soy gel and abrasive cleaning was repeated up to 5 times, and extra spot cleaning was required on stubborn paint spots. Finally the surfaces were washed down with warm water and clean rags, and sealant was used where any cracks or small holes were present.

### **Telling the story**

Sharing the stories of our heritage is one of the great delights of being custodians of heritage places. For MoAD this includes many opportunities to share with the public our conservation work that is ongoing in the preservation of our unique and iconic building. Throughout this project, as with all recent major conservation projects and building works at MoAD, we share the work with the public through our e-newsletter database and social media with images anecdotes reporting our progress. Through social media activity, previous events, and public engagement opportunities, MoAD has grown an interested and responsive audience who enjoy the exclusive appeal of being shown behind the scenes.

In the final weeks of this conservation project we had the opportunity to offer two scaffold tours to the public, where we took a small group to the building site and onto the scaffold (a total of 28 people over both tours). We presented some key messages about the importance of the conservation project, and how we continue to learn and understand the building's past. The tour group had the opportunity to hear from two conservators on the project who described the various technical and treatment challenges, and discussed the physical structure and history of the windows. Although logistically complicated, because of the safety requirements for visitors climbing scaffold, and other factors arising in outdoor tours like noise and weather, the tours were successful, and will continue to be part of our public engagement program.

For our supporters who would have liked to attend the tour but weren't able to make it, we filmed part of the tour and streamed the live video via the 'Periscope' app on Twitter. This was our first trial of this informal and direct way of engaging the public, and our video peaked at 30 people tuned in during the live stream, and was watched by many more in the hours after the tour.

Scaffold tours in this project and previous conservation projects have been successful in broadening our audience, and the opportunities to engage the public in an ongoing conversation about the importance of preserving cultural heritage sites.

## **Conclusion**

As with many heritage projects, it is the collaborations – of people and teams who bring various perspectives and expertise –that add real value and lead to innovations in approach and practice. The outcome has been the consolidation and presentation of the iconic windows in a way that honours the original craftsmanship and maintains the architect's vision. Building communities through engagement with conservation projects is a strong focus for the museum and is one of the strategies we use to celebrate the building's role in the evolving story of Australia's democracy.

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