



Iwan Iwanoff, Paganin House, Perth, Australia, 1965, close-up of the original front facade, illustrating the white marble verandah fascia and balustrade and the Western Australian Jarrah hardwood timber on the verandah soffit and the front (North-facing) facade window wall, 2005.
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Paganin House: a risen phoenix

BY SCOTT ROBERTSON AND NONI BOYD

A risen phoenix examines the issues surrounding the reinstatement of an important post-war house in suburban Perth, Western Australia that was destroyed by fire and examines the preservation of the original architect's design intent through use and interpretation of the documentary evidence, the physical evidence and an understanding of the personality and design ethos of the original architect by the architect for the reinstatement work.

When faced with the partial or total destruction of important works of architecture there is almost universal approval for a faithful recreation of the lost elements of important or well-known works of architecture. No-one questioned the wisdom of replicating the section of Windsor Castle destroyed by fire in 1992 or the interior of Mackintosh's Glasgow School of Art destroyed by fire in 2018. When the roof of Paris's Nôtre Dame Cathedral was destroyed by fire in 2019 speculative modern interventions were touted soon after, however, it was resolved to rebuild the roof according to the original design [as reworked by Viollet-Le-Duc (1814-1879) in the 19th century] and it now appears that Viollet-le-Duc's 1859 pinnacle will be replicated to match his design. These buildings are national icons but the Paganin House (1965), in the Floreat suburb of Perth, Western Australia (WA), is a well-known, but not heritage-listed, private home which was largely destroyed by fire in 2015.

Background

The Paganin House was an important Modernist single-family house designed by émigré architect Iwan Iwanoff (1919-1986) in 1965. Iwanoff was born in Bulgaria and educated in architecture at what is now the Technical University of Munich, completing the course in 1946. From 1950 he was based in Perth, WA, but moved to Melbourne in order to obtain his architectural registration, and then returned briefly to work in West Germany. In 1961 he returned to Perth and established his architectural practice.

The house was designed for timber and marble merchant, Arthur Paganin and his family. The house's second owners restored the house and sold it in 2013. Under the ownership of the house's third owners, in December 2015 whilst the owners were away, the house was destroyed by fire to such an extent that the end brick walls and the concrete floor slabs, plus some salvaged timber joinery, were all that remained. The 1979 pool pavilion by Iwanoff, however, remained intact and contained some similar details to the original house. The loss of the house was keenly felt by architects and the general public in Perth. The WA State Architect described Iwanoff as being "like our local Gaudi" and that the "loss of the house is the loss of a local treasure."

The owners of the house determined to meticulously rebuild the house according to Iwanoff's original design and engaged Perth architect, Tim Wright, to oversee the rebuilding of the house.

The house

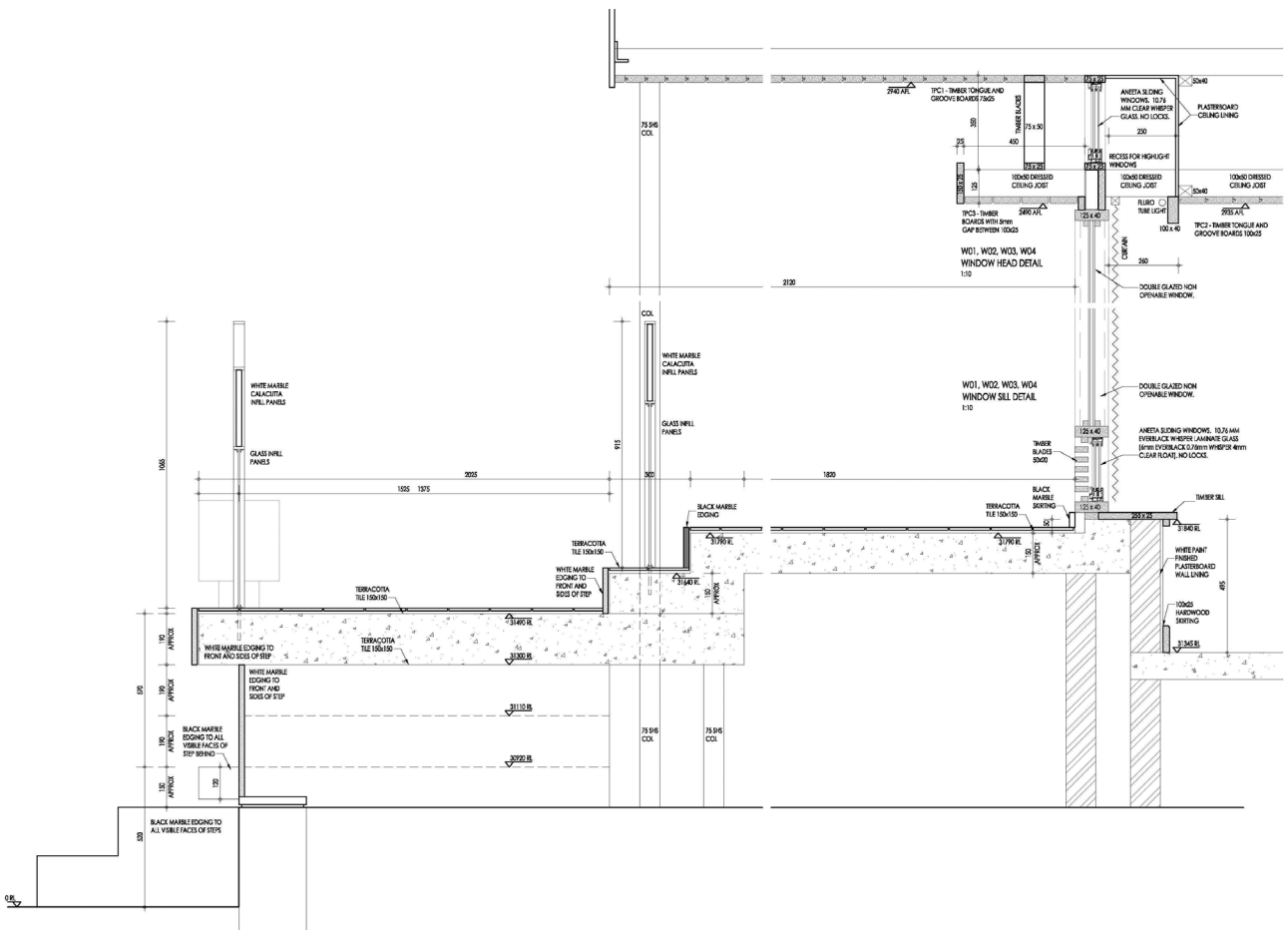
The house presented to the street as a floating rectangular prism above its garage-containing basement, with the shadow of the front verandah contrasting with the scalloped pattern of the steel and marble balustrades. The end blank walls of the front verandah featured book-matched slabs of gold-veined black Italian Nero Potoro marble. The window walls of the house were constructed from Jarrah timber, a dark red hardwood native to WA, and featured fixed louver ventilation strips at the base and top of each window panel.

The plan of the house is a rectangle with brick end walls and long window walls on the long sides. The bedrooms and other private rooms had brick walls but the remainder of the house was open plan with the prominent timber-boarded ceiling defining a solid plane above. The functional spaces under this sweeping ceiling were defined by a combination of varied floor levels and the use of semi-open timber screens that allowed vision and ventilation but created a sense of intimate enclosure. The predominant finishing materials comprised terra cotta tiles on stairs and the front verandah and in some internal spaces with edging of black marble, timber wall paneling, timber semi-open screens, marble panels, gold wallpaper, carpet, translucent white and turquoise Perspex for lighting, and plastic laminate paneling; a sophisticated mélange of luxurious and new materials specifically sourced for the project. The extensive use of marble in a private home was rare in WA at the time of construction and reflects the business of the original owner.

The process

The current owners were determined to retain as much of the scant surviving materials from the house and to replicate the missing material and elements in accordance with the original design. Iwanoff's architectural drawings are housed in the State Library of WA and the comprehensive

01 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, section through the rebuilt front timber window wall as documented by Tim Wright, Architect showing the ventilation louvers at the base and top of the wall, backed up by sliding glass panels. © Extracted from Wright Feldhusen drawing A.08 C, dated 11 October 2016, courtesy Tim Wright Architect Pty Ltd.



set of drawings for the Paganin House was made available for use by the Iwanoff family to assist in the rebuilding so that it could be based on the architect's original details. Like all construction projects, the Paganin House had not been constructed totally in conformity with the drawings and so the remnants of the house were measured and a set of measured drawings prepared to show the Paganin House in its "as-built (1965)" configuration. This process was also necessary as the original drawings were in imperial measurements and Australia has used metric measures since 1972, so the drawings for approval from the local government authority and for construction had to be metric.

In addition to the original architectural drawings, the architect had access to a comprehensive collection of photographs. Over the years, the house had been professionally photographed, had appeared in TV commercials and TV programs and the owner possessed a collection of their and previous owner's family photographs that featured the house. A set of photographs taken by a child playing with a camera revealed details such as the skirting profiles; details not normally appearing as the subject of family photographs. In addition, the owner had clear memories of many of the features of the house (a form of oral history) that supplemented the other documentary evidence.

The physical evidence consisted of the intact basement of the house, incorporating garage, storerooms and cellar, the floor slab and the still-standing end brick walls of the main level, bedroom brick walls, sections of the steel and marble front balustrade, the steel brackets for the Dining Room timber screen, some intact window wall sections in the rear elevation, some internal floor finishes, and some internal joinery from the enclosed children's bedrooms. Marble around the pool was recovered and reused and marble paving to the rear verandah and terrace was restorable. Many of the Turner Industries "boomerang" cabinet handles used in the kitchen and wardrobes were also recovered from amongst the ashes with the balance sourced from extensive online searches and a gift of some

spare handles from another Iwanoff home owner. Markings on the concrete floor slab indicated the wall lines of the rooms and, in some instances these deviated from the position of those walls on Iwanoff's drawings. The pool pavilion provided additional "as-built" details.

The insurance company required that competitive quotations be sought for the rebuilding of the house which required full documentation but when the insurance company's builders withdrew from the tender process the architect was able to negotiate a price from his preferred builder.

Issues

The issue of recreating an architectural work without the original architect/artist was an interesting philosophical conundrum but one which had to be solved by relying on the surviving physical and documentary evidence as well as on an understanding of Iwanoff's design approach by considering the other extant works by the architect that were contemporary to the Paganin House.

In a similar manner to the 19th century use of an iron structure in the new roof of Chartres Cathedral, it was decided that the new roof structure at the Paganin House would be steel to create a straighter, lighter structure over the large open spans of the house which would be fixed to the new steel columns replicating the original steel posts. The steel structure is not visible and so there is no detrimental aesthetic impact. The speedy erection of the steel and the installation of the long-length steel roofing sheets enabled the house to be covered in at an early stage of the project, allowing work to continue during inclement weather.

One of the most important aspects of the house is the widespread use of different types of marble. Some of the replacement marble could be sourced from marble importers but the black marble end panels to the front verandah proved difficult to source and the decision was made to inspect the marble quarries of Northern Italy and personally select the slabs of marble for the house. The cost of the marble used in the house eventually comprised



02 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House front facade photographed in 2005 prior to the fire during the previous ownership of the house, illustrating the use of white marble on the verandah fascia and balustrade and the extensive use of Western Australian Jarrah hardwood timber on the verandah soffit and the front (North-facing) facade window wall. © Photo Robert Frith/Acorn Photo.



03 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House after the 2015 fire. The remaining west side brick wall is on the left and the later Pool House by Iwanoff is on the right. © Photo Tim Wright, courtesy Tim Wright Architect Pty Ltd.

one-third of the total reconstruction budget. Other details such as glass door handles were also Italian-made and examples of these could still be seen in other Perth buildings.

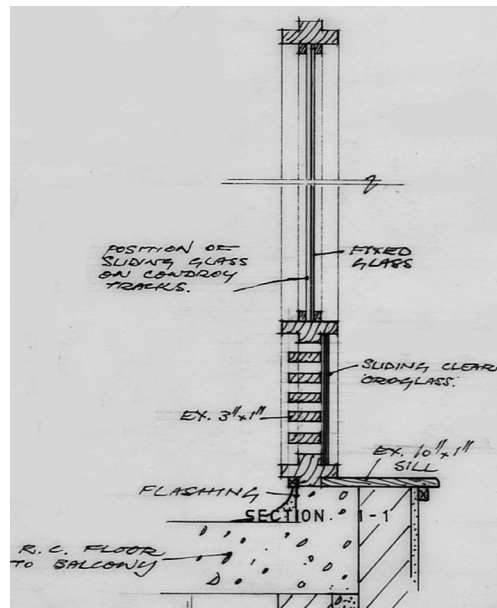
In addition to marble, the other major element of the house is the extensive amount of Jarrah timber used for windows, doors and interior finishes. Two months were required to install the 5 kilometers (km) of secret-nailed Jarrah ship-lap boards on the ceiling. Five tonnes of Jarrah were used for the windows and doors which were milled by the joinery shop to match the original Iwanoff profiles and sizes. Some of the original Jarrah joinery was salvaged from the built-in desks and bedroom wardrobes, refinished and then re-used in the new built-in furniture.

At a more prosaic level the issues of compliance with current building codes necessitated the modification of some of the original specifications. Greater thermal insulation was required in the roof but this could be incorporated in the ceiling without altering the original dimensions or esthetic of the house.

The large timber window walls of windows and integrated doors were more problematic because of the increased requirements for safety against human impact. The original timber sections were robust enough to comply but the glazing had to be safety glass in lieu of the original float glass and the decision was made to introduce double glazing for enhanced insulation in addition to its safety features.

The second owner of the house had installed a rudimentary air conditioning system and the current owner wanted to install an up-to-date system in the house. The original house was unairconditioned and relied on the fixed Jarrah timber louvers at the base and top of the window walls, so one of the new interventions was to design supply and return air grilles in the Jarrah ceiling that would not interrupt the visual flow of the ceiling.

In addition to the replication of the house structure and finishes all the furniture and light fittings had to be sourced. One of the interior features was a button-padded and Laminex' drinks bar in the shape of a futuristic boomerang. Above the bar hung four cylindrical glass pendant light fittings. The bar was reproduced from the original drawings (and the outline of the original remaining on the concrete slab). The lights were eventually identified as British "Chelsea" pendant lights by Peter Rodd and Richard Stevens for Atlas Lighting. The glass shades were manufactured by James Powell & Sons (Whitefriars) Ltd. and the design won a Council of Industrial Design Prize in 1960. Original "vintage" fittings were uncovered in Britain and were installed in the house as contemporary original fittings. When the owners purchased the house the original loose furniture was limited to beds for the master bedroom and two minor bedrooms, each designed by Iwanoff. However, by chance, these were offsite being stored and/or restored at the time of the fire so could be reintroduced into the house following its and their restorations. The destruction of the rest of the furniture in the fire created an opportunity to recreate the original dining table from drawings in the Iwanoff collection. The Jarrah framework of the new table



04 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, the original section through part of the front timber window wall as documented by Iwanoff showing the ventilation louvers at the base of the wall, backed up by sliding glass panels. Extracted from Studio of Iwanoff drawing 129/1, dated 4 February 1965. © Reproduced with the permission of the Iwanoff Trust.



05 Iwan Iwanoff, Paganin House, Perth, Australia, 1965. Paganin House Bar in Living Room with white and green Laminex wall paneling, and Laminex and padded bar that were reproduced in the rebuilt house. Originals of the glass pendant lights above the bar were sourced from Britain for the rebuilt house. © Photo Robert Frith/Acorn Photo.

06 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House Entry foyer looking towards the main bedroom with Jarrah timber ceiling and wall paneling, all reproduced in the rebuilt house. © Photo Robert Frith/Acorn Photo.



07 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House Entry foyer looking towards the kitchen with Laminex and glass sliding doors and translucent marble wall panels, all reproduced in the rebuilt house. © Photo Robert Frith/Acorn Photo.

08 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House Dining area with timber screen, the main Jarrah timber ceiling and wall paneling, all reproduced in the rebuilt house. The barrel-vaulted white Perspex lighting diffuser ceiling over the Dining area was also replicated in the rebuilt house. Photographed in 2005 prior to the fire during the previous ownership of the house. © Photo Robert Frith/Acorn Photo.



09 Iwan Iwanoff, Paganin House, Perth, Australia, 1965, Paganin House after completion of the reconstruction works, 2018. © Photo Tim Wright, courtesy Tim Wright Architect Pty Ltd.

was constructed using original salvaged Jarrah timber from the house that was not able to be reused elsewhere and the Laminex table top faithfully replicated the original material. In addition, following the restoration, the owners were able to secure Iwanoff's original desk that he designed and used when he commenced taking private commissions while working with Kranz and Sheldon in the 1950s. This desk has the same Turner Industries cabinet handles as originally used in the house and seemingly favored by Iwanoff in that era.

The reconstruction of the house was completed by December 2018, three years after the fire. The project was the subject of a national Australian TV program, *Restoration Australia*, which brought the house to national prominence.

Conclusion

The restitution of the Paganin House involved retention of as much of the original fabric that had survived the fire and could be reused, replication of the original architect's details and materials for the majority of the destroyed fabric, and development of sympathetic new details to upgrade some of the aspects of the house to current codes and requirements.

The recreation of an original work of architecture through replication is often not considered to be conservation as it contains little or no original material, but one only has to experience important 20th century works of architecture, such as Mies van der Rohe's (1886-1969) replicated German Pavilion (1929), to understand the value of recreating the original essence of the architecture, the manipulation of space and the sensory appreciation of faithfully sourced and replicated materials and finishes. However, as the Paganin House was not a museum building, its rebuilding also required creative input from the current architect in re-designing elements that had to be upgraded to current standards and to meet the requirements of the current owner, all within the framework of the original architect's design intent. Whilst such work required the sublimation of ego it did not suppress the necessary creativity of the current architect to bring the house back to life.

Where detailed documentation survives in the form of drawings and photographs (as well as fragmentary physical evidence) it is possible to recreate a building that reflects the original, authentic artistic intention. After all, architecture is an art that requires other hands to bring the drawings and ideas to physical reality and, if the original ideas remain behind (as embodied in the documents and physical evidence), then the original artistic intent can be maintained so long as there is a determination to use

materials that are as close as possible to the original, and for the participants in the process to want to allow the original architect's vision to remain throughout as the guiding principle of the work.

Acknowledgements

The authors would like to thank the architect for the reconstruction (2015-2018), Tim Wright, for supplying the drawings and information on the rebuilding process and Tim Bult, the owner, for his constructive comments and introductions to the photographers for the supply of illustrations.

Notes

- 1 "Laminex" is a high-pressure decorative laminate made from layers of paper saturated with melamine and bound together with phenolic resins that has been manufactured in Australia since 1934.

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