

LABOUR OF LOVE

The bare brick walls of a warehouse in North Hobart encase a sensuous interior that architect Scott Balmforth created for his own family, using steel as his foundation

Words **Rachael Bernstone** Photography **Paul Bradshaw**



37



ARCHITECT Scott Balmforth, Terroir
PROJECT Smith Street (Ware)house
LOCATION Hobart, Tasmania



Transforming a warehouse into a home for his family was initially a daunting experience for Terroir director and architect Scott Balmforth. He bought the warehouse in North Hobart with his brother, divided the space in two, and “found it difficult to get started because there were many ideas rolling around in my head.

“I owe a debt to my wife, who was also the ‘client’ on this job and is not an architect,” Balmforth says. “She took the project on board with a leap of faith.” While he had completed many projects for third-party clients, Balmforth had only undertaken a minor renovation to his family home previously, and he found the “blank canvas” of the warehouse – with its 300m² of concrete floor space – overwhelming.

“I started thinking about ideas from our practice, and about research I’d done as part of the RMIT Masters course I was invited to undertake in conjunction with fellow Terroir director Gerard Reinmuth. But thinking about how we practice, what we do and where to start, it was difficult,” Balmforth says. “However as the job got going, once the design, documentation and construction were underway, it found its own life.”

Balmforth aimed to maintain the industrial aesthetic of the warehouse while making it habitable for his family, which includes three children aged under seven. “I wanted to achieve balance between the original character of the warehouse as well as moments of cosiness,” Balmforth says, “so there is a contrast between the soft enclosed spaces of the bedrooms which are lined with plasterboard and have roof-light windows with views of the sky, and where galvanised steel predominates, and the lower level which is darker, with greater use of Formply that gives it a heaviness.”

Balmforth also wanted to maintain the sense of openness from front to back, so he installed steel framing to carve up the space vertically and horizontally. “Now you can drive into the garage and see through the glass-walled living space to the rear of house,” he says.

The dividing wall that bisects the warehouse comprises a primary steel frame with a party wall system for fire separation between the two tenancies. In his section, Balmforth installed three 200 Universal Beams parallel to the side walls to support the new upper floor. “It was important for me that the beams appeared as though they were spanning the 20 metres between the front and back walls with minimum depth,” Balmforth explains. “Upstairs, there is a sawtooth roofline, and the bottom chord of that gave the height limit for the upper floor, so to maximise the space on both levels, I set the timber floor joists within the steel beams, rather than sitting on top of them.

“The universal beam profile was ideal for this, whereby joists could be placed in to each side of the beam, and between the joists were placed infill offcuts to sandwich the joists in to the UB,” he adds. “These infills on both sides were then fixed through the web of the UB to hold it all in place tightly.”

The integrated system incorporates the ply floor and strips of continuous diffused fluorescent tubing that light the ‘undercroft’ spaces and emphasise the linear character of the lower level. ➤

ABOVE AND FAR RIGHT: The new upper floor of the Smith Street (Ware)House is supported by three 200 Universal Beams, which incorporate timber floor joists, ply flooring and strips of continuous diffused fluorescent tubing to light the ‘undercroft’ spaces below

RIGHT: The light from north-facing roof lights above the main living area is diffused by ceiling screens made from Expamet expanded metal sheet, the same material that forms a veil between the two floors





“I wanted to achieve balance between the original character of the warehouse as well as moments of cosiness”

Balmforth chose steel to provide longer spans for the primary structures and strength without mass. "There are a couple of columns strategically located on the ground floor, hidden within walls, so the overall effect is that you don't know how the upper floor is hung," he says. "Steel beams also fit with the character of the original warehouse."

The conversion also features unconventional steel applications such as the galvanised screens – made from Expamet's expanded metal sheet which is usually used for sun shading. "I've been interested in using the expanded metal product for a while," Balmforth says. "It has a different character depending on where you view it from, and I appreciated that, installed as screens, the way you viewed it would change whether you were upstairs or down. It provides a good balance between privacy and openness."

The same screens were installed on the ceiling over the double-height living room to protect two north-facing windows in the roof. "I didn't want the windows to dominate that space, so by putting the expanded metal screens underneath, we still get light into the space but it isn't so prominent," he says. "The screens have the added benefit of blocking summer sun but letting the lower level winter sun through."

Also departing from convention, Balmforth brought some flat ZINCALUME® steel sheeting inside. "This project embodies ideas we've previously used [at Terroir], such as using flat ZINCALUME® steel sheeting as a ceiling lining," he says. "It has some surprising effects: it acts like a lid for the house, because there was ZINCALUME® steel on the rear elevation already, so now it is wrapped around to the inside. We've used flat sheet in interiors before, and putting it on the ceiling seemed like a logical extension to my project."

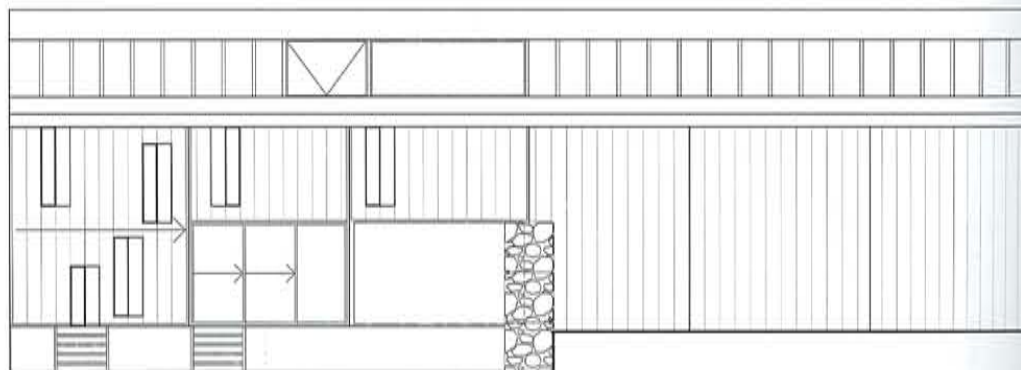
The existing galvanised sheet cladding on the rear wall took on an unusual character when new openings were inserted in that elevation. "When we cut the new windows, we peeled the sheet back so that it sits proud of the building, and the rigidity of the material means it doesn't move too much," Balmforth says. ➤



PANEL SAYS

The high level of detailing in the infill sections of this architect's own home are a delight to behold. Handmade door pulls, the use of expanded metal mesh for wall screens to veil upstairs from downstairs, the juxtaposition of cold and hard materials against warm and soft furnishings: it all adds up to a stunning project.

It's a terrific example of the way an architect can experiment when designing a home for his own family, unconstrained by the need to convince a client to take risks with design.



SOUTH ELEVATION

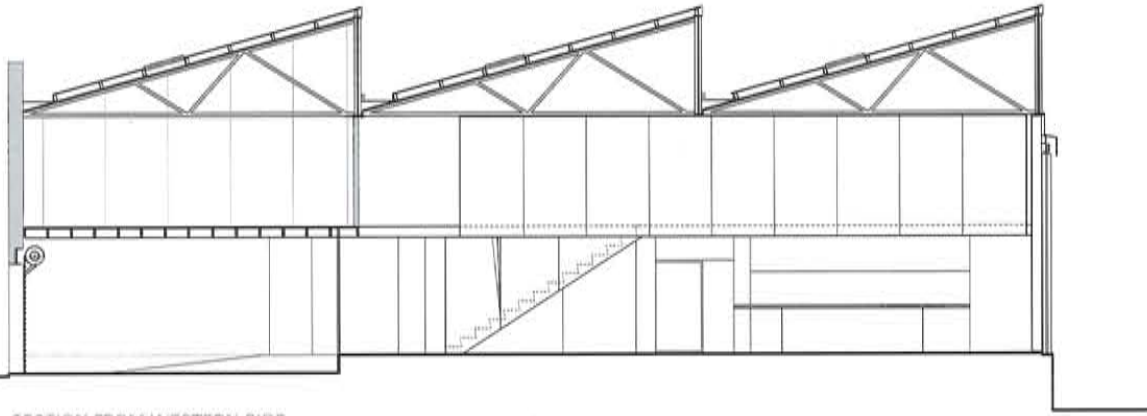
ABOVE: Balmforth says the metal sheet has "a different character depending on where you view it from... It provides a good balance between privacy and openness."

OPPOSITE: Galvanised steel predominates upstairs, where the enclosed spaces of the bedrooms (bottom left) and children's playroom (top right) are lined with plasterboard and lit by skylights



Once the steel framing was in place, it provided the foundation for an experimental building process that produced some quirky outcomes. "A lot of the subsequent work resulted from very personal discussions I had with the builders from Tascon constructions," Balmforth explains. "We were playing with opportunities that arose. A lot of the detailing, particularly in the way that the timber linings and beams are set within the steel framing and steel beams on the upper floor, was done on site with the builder rather than in documentation."

The strong rapport that existed between builder and architect-client allowed Balmforth to incorporate unique details into his own home. The tactile door handles are one product of their collaboration, and symbolise the different approaches taken on the ground floor and upstairs, where four bedrooms ➤



SECTION FROM WESTERN SIDE

“I was interested in exploring the extremes of hardness, toughness and rawness in the living spaces, for example by leaving paint stains from the warehouse’s previous uses on the walls and floors, and working around those”

and two bathrooms are located. Downstairs, the handles are store-bought rock climbing grips that Scott painted black. “Upstairs, they are laminated ply floor joists carved into rock climbing grip shapes by the builder, and I limed stained them,” Balmforth says. “They are a sensual thing, it’s so nice to touch them.”

The nature of the building process meant that architect and builder were able to devise solutions to problems as they arose. “When we put the expanded metal sheets up on 50mm backing board, the sheets had a bowed edge, so you couldn’t butt them up,” Balmforth says. “We arranged them as best we could, but there were still gaps at the bottom, so we had to go back over them and apply 50mm-wide by 3mm-thick plates, which just adds another level of irregularity to the project.”

On the lower level, where the Formply wall lining was prone to being damaged, architect and builder opted to apply mild steel plates that sit slightly proud of the joints to take the impact on corners. “That was another of the solutions we devised as we went along,” Balmforth says.

By carefully combining cold, strong and hard materials such as steel, concrete and ZINCALUME® steel with warmer and softer surfaces such as lime-washed timber and hand-carved door pulls, Balmforth has created a home that is true to its roots and conducive to family life.

“I wasn’t consciously trying to mediate the effect of hard and cold against warm and comfortable, other than knowing that the bedroom spaces needed to be cosier and softer,” Balmforth says. “I was interested in exploring the extremes of hardness, toughness and rawness in the living spaces, for example by leaving paint stains from the warehouse’s previous uses on the walls and floors, and working around those. Then we overlaid our life – by putting in our furniture and hanging artwork on the big wall, and the rock climbing grips for a softer sensual feel.”

The play of light also adds warmth and complexity to the space. “On summer mornings, there is brilliant light from the south-east facing roof-lights, and we installed additional skylights in the areas that needed them, such as the playroom and the bedroom that isn’t connected to the sawtooth roofline,” Balmforth says. “There are also large windows off the kitchen and second living area that bring light into the ground floor.”

So how have the Balmforths adapted to their new unconventional home? They like the fact that there is a large walled garden at the rear where the children can play safely, and Balmforth enjoys the weekday bustle and weekend hush of the street – with its commercial neighbours on both sides and houses opposite. “We moved from a house that was too small for a young family, and in many ways, this is the reverse!” he laughs. SP



PROJECT Smith Street (Ware)House CLIENT Scott and Fiona Balmforth ARCHITECT Scott Balmforth, Terroir STRUCTURAL ENGINEER Gandy and Roberts BUILDER Tascon Constructions
 STEEL FABRICATOR Structural and Metal Fabrications PRINCIPAL STEEL COMPONENTS Expamet 1200mm wide by 1.86mm thick expanded metal sheet (perforated screens) in profile L7616G with galvanised finish (GALVABOND® steel) riveted to 50x50 galvanised angle perimetre supports; flat ZINCALUME® steel sheeting (ceiling lining); 3mm thick x 50mm wide x 1500mm high mild steel (corner protection on Formply wall lining) BUILDING SIZE 380m³ COST \$350,000



From the street, the warehouse retains its blank brick facade and former occupant's signage, but the internal transformation is obvious from the moment you enter the fishbowl garage