

SATURDAY

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Sense and sustainability

The renovation of a northern beaches shack leaves a small eco footprint, writes **Catherine Nikas-Boulos**

BEFORE



Sustainable design might not sound sexy, but architect Matt Elkan begs to differ. Having worked on many projects that are environmentally savvy, he says beauty plays a pivotal role in green architecture.

"Sure, we can talk about solar panels and water tanks, but a home has to be built well and the owners have to love it," Matt says. "If something is beautiful, then it will be preserved. If it lasts twice as long then it has a better ecological outcome than if a future owner hates it and wants to knock it down."

Quality over quantity

With that ideology, Matt took a cute cottage at Manly Vale and designed a renovation that was both aesthetically pleasing and ecologically aware.

Stripping back the two-bedroom cottage to its bare bones, it was re-clad to its exact footprint in a robust 8.5mm plasterboard. The foundations sat on a sandstone rock shelf, and the owners agreed to allow the rock to govern the level of the two-storey extension. A mature tree on the site also dictated how far back the renovation could go.

The new two-storey pavilion is linked

to the existing cottage by an elongated skylight, with a living room downstairs and main bedroom upstairs.

"The quantitative drive of this project was, 'we need another bedroom and a living space' but the qualitative stuff is much more significant," Matt says. "The house didn't make use of its northern aspect, and there was no real connection to the outside. The whole thermal performance of the house also wasn't operating as it should."

Builder Greg Lofhjelm from Bangalley Building says the build was relatively smooth.

"The only difficult bit was getting machinery down one side of the house to cut into the rock," he says.

"It was a great run, otherwise."

Living local

The cottage is sustainable on many levels, with locally sourced recycled materials used throughout the structure, including sandstone which was bought and re-used.

"It costs the same price to buy sandstone new, but there are more labour costs and less materials costs this way," Matt says.

The eaves on the property are at an angle to allow light in during winter, and prevent the harsh summer sun from penetrating the walls, and large louvers on both levels keep the house naturally ventilated. Sensor-operated venetian blinds also shade the northern and western aspects.

The skylight strip between the old and new design is double glazed low-E glass, with the western side of the skylight shaded with a roof garden. The roof garden collects rainwater, which is then diverted to a green wall, with the excess plumbed for use in the laundry.

The cottage has achieved a 5.5 building star rating, and was recognised at the NSW HIA Awards recently, winning the Greensmart and the Renovations \$800,000 to \$1.2m categories. Yet, there is another design aspect that Matt is most proud of.

"The front door is half way down the side of the house, and you have to walk half way down to get there. You come in between the living area and kitchen, and you immediately feel welcome. It's a reflection of the owners — they are generous and open."

Pictures: Simon Whitbread



A mature tree at the rear of the property dictated how far the work would go and casts dappled shadows over the living area.

THE SOURCE

Green walls and self-watering green roof planting by The Greenwall Company, greenwall.com.au

External cladding in James Hardie Easy Lap, jameshardie.com.au

Roof BlueScope roof, Colorbond, colorbond.com

Renewable energy panels installed by SolarPro, solarpro.com.au

LED lighting Tovo Lighting, tovolighting.com.au

Wood burning heater Morso 7648, castworks.com.au



PROJECT

Architect

Matt Elkan from
Matt Elkan Architect,
mattelkanarchitect.com.au

Builder

Greg Lofhjelm from
Bangalley Building,
bangalleybuilding.com.au

The problem

A family of five were
running out of space in
their small beach cottage
in Manly Vale

Design solution

Renovate and extend the
1950s cottage in a
environmentally-
sensitive way

How long did it take?

12 months



A light-filled study with ample bookshelves fits neatly under the open tread staircase (above). The extended skylight (right) draws light into the centre of the new pavilion.