



T THERE BE LIGHT

ARCHITECTS ARE DEVISING INNOVATIVE SOLUTIONS TO MAKE NATURAL LIGHT A REALITY IN EVERY AUSTRALIAN HOME, REGARDLESS OF THE SIZE OR SHAPE OF THE STRUCTURE

Natural light is one thing we all crave. Just think of how people react on a rainy day! However, when it comes to our homes, most of us are not content to simply light up a room with the flick of a switch. So, there is now a demand for architects to come up with creative design solutions that will introduce natural light into our sanctuaries.

Architects are responding with a freedom of ideas that has turned conventional construction rules around. Of course, they are helped by massive improvements in glass shaping and glazing technology. Historically, glass walls and roofs were seen only in glasshouses and winter gardens. In the body of a house, too much glass made the rooms too hot in summer, and a mass through which warmth would escape in winter.

But today, glazing and tinting developments and building techniques are such that you can practically do anything you want to lighten your home architecturally. Here, six architects talk about some of the ways they have injected natural light into the equation.

GLASS ROOF
The brief for architect Jim Searle was to improve the layout of a terrace kitchen to create more living space and a much brighter room.

Part of the construction involved putting in a new five-by-one-metre breezeway, and then topping it with a laminated glass roof.

"The idea was to steer natural light into the house," says Searle.

"The glass roof gives the room >page 150

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High windows

It can be dangerous putting in too many windows, especially high windows or skylights, because they are usually the weakest link in the architectural envelope.

However, with this in mind, architect Caroline Pidcock set about creating a controllable way to let more light into the second floor of a recent house reconstruction.

"You have to be really clever in how you control the light," Caroline says.

The idea for the whole house was to make the most of the view to the east while still bringing the north-easterly breeze and the sun into the rooms.

Yet the second storey corridor proved a problem, because the

bedrooms blocked the natural light source. To solve the problem, powder-coated aluminium windows were put in along the roof line on the south side of the house (2.7 metres above the floor). In this way, the corridor was lit during the day by sunlight and the bedrooms also could be cross-ventilated.

"Because the well-sealed windows are at the highest point of the house, they can be opened to allow hot air in summer to escape and the breeze to flow through," adds Pidcock.

"And the huge advances in window and glazing techniques mean that, when you close them in winter, the warmth is kept in, and the sunlight is still able to spill into the corridor."

A splash effect

Hard surfaces, such as terrace tiles, can often bounce harsh light into a room.

So architect Caroline Pidcock decided to experiment with water in a bid to filter more light into the living areas of the house she was designing.

The north-facing terrace was cut short on width, and a five-metre-by-three-metre pool was brought in and butted up to the fixed curved glass doors of the informal living area.

The result is that the living and kitchen areas of the house receive reflections of light off the water.

Says Pidcock: "It's a play of light that feels cool."



"Architects are responding to new demands for lighting with a freedom of ideas that has turned conventional construction rules around"

Strategic skylight

When constructing his own house, architect Wayne McPhee wanted to create an even natural light flow, which he achieved using floor-to-ceiling glass windows and doors overlooking a water vista.

However, the light didn't highlight a steel and timber staircase that forms a sculptural feature in the centre of the house.

So McPhee installed a "standard, off-the-shelf skylight" in the ceiling over the top of the staircase. "I located the skylight centrally to the staircase and put in an opal diffuser to help disperse the sunlight downwards. I also painted the walls white so that the light would bounce around the staircase structure."