

## ARCHITECTURE ECO HOUSING

# Taking steps to leave no footprint

A new green standard aims to ensure homes tread lightly on the land and fit with the environment, writes Sue Williams.

Simple or sophisticated, using the latest in ecologically efficient materials or completely recycled from pre-existing structures, some of the most environmentally friendly holiday homes in the world are appearing in Australia.

While our climate undoubtedly helps, an emerging group of second-home buyers are determined to take a break as lightly on the land as they can.

When they link with architects similarly dedicated to minimising a building's carbon footprint, a new green standard in holiday retreats is forged.

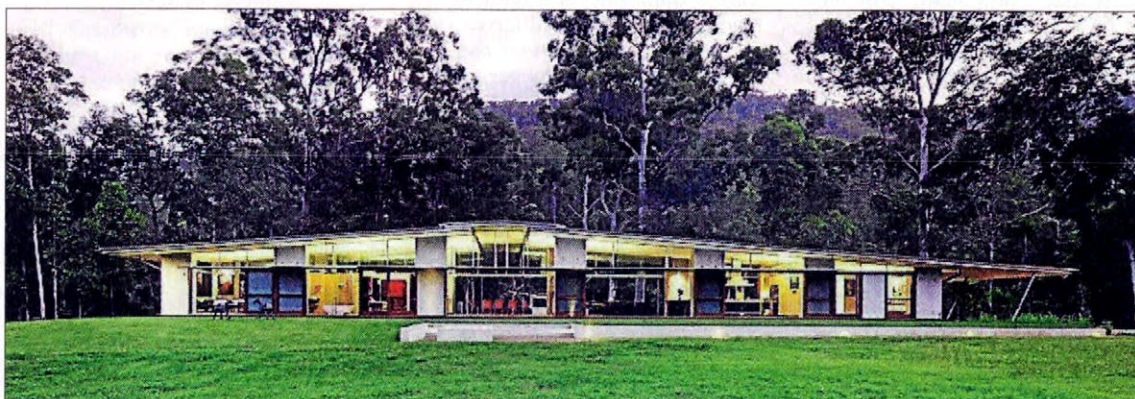
## The Kiln House, Victoria

The first time that architect Sally Draper visited the Ovens River Valley in north-east Victoria, she was entranced by the sight of all the old brick tobacco kilns dotted across the landscape.

So when she was asked to design a holiday home in the valley, she had the perfect opportunity to make use of them. "The whole idea of how much energy there is in what you are building is a fundamental starting point," says Draper. "By re-using existing buildings, obviously, you are minimising your impact. Happily, the owners were very open to that."

As a result, two old tobacco kilns were pulled apart, brick by brick, and transported to the chosen site in the middle of a paddock near Porepunkah, 11 kilometres from Bright, on a working cattle stud in the shade of magnificent Mount Buffalo. With the kilns – once used to dry the tobacco crop of the area – totally refurbished to provide three bedrooms and two bathrooms, as well as a writer's retreat, they're designed to make the most use of the space between them and beyond.

"This isn't a big house and the



idea of that was to enable the occupants to experience the environment they're in," says Draper, of Sally Draper Architects, who designed the house as part of the old firm, Swaney Draper Architects. "There's a lot of useful outdoor space so that people can enjoy the landscape, but in a moderated environment."

An over-large deck between the two kilns becomes an extra living space and the northern deck affords additional views. Inside, there's a very simple palette of

materials that are all sustainable, including plantation timber cladding.

In summer, the building is cooled naturally by east-west breezes with shuttering to regulate sunlight and vines outside to provide shading, while for winters there's wood fire heating.

With its setting within walking distance of the river and wineries, and close to the ski fields of Mount Hotham and Falls Creek, The Kiln House is now regularly hired out to visitors for holidays

([www.kilnhouse.com.au](http://www.kilnhouse.com.au)), as well as, at other times, providing a quiet green refuge for the owners.

## House at Jilliby, NSW

When Wilkinson Award-winning architect Fergus Scott was approached by a family from the US who wanted a holiday home built close to a billabong by wooded hillsides at Jilliby near Wyong, he went along to sleep on the site to see how it felt at all times of the day – and night.

He was as entranced by the



Inside the Kiln House (top left and above) there is a very simple palette of materials that are all sustainable. Bottom, the House at Jilliby . . . it's like living among the trees. Photos Earl Carter and Michael Nicholson

setting as were they and ended up designing a house which sat so lightly on the valley floor, and could be opened up so completely, it felt almost as if you were living right among the trees.

"The house is a specific response to this particular site," says Scott, of Fergus Scott Architects.

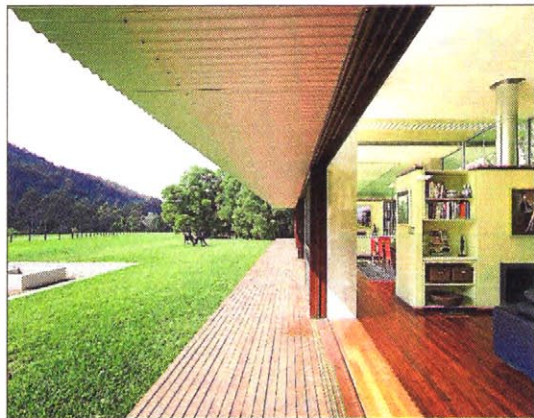
"The simple linear circulation reflects the clients' previous pattern of use when they sited a caravan and used the northern edge of the treeline according to the time of day.

"The plan was to allow the inhabitants a close connection with both the billabong and the open field, and maximise views to the north."

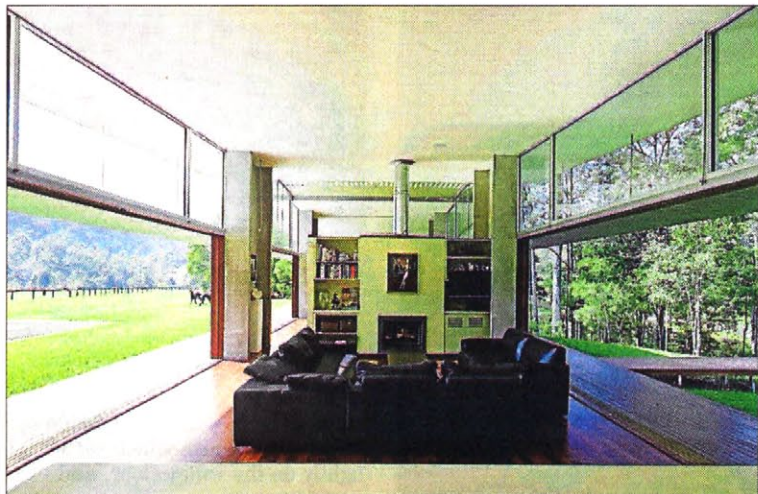
To stay true to its natural environment, Scott, who won the 2003 Wilkinson Award for his Toumbaal Plains House, made this home as environmentally friendly as he could. The pre-cast columns supporting a suspended floor and roof frame were made locally, to minimise the transport carbon footprint, and then placed gently on the site, to avoid any damage from concreting in situ. All the products used were of low toxicity and renewable.

Facing north, and in a long, skinny form with plenty of glass, the sun penetrates deep into the building in winter, with ventilation to keep it comfortable. There's a slow combustion wood-burning

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All the products used to make the House at Jilliby (left and below) were of low toxicity and renewable. Photos Michael Nicholson  
Blairgowrie House (right) uses compressed cement sheet panels to divide spaces and diffuse light.  
Photo Jeremy The



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fireplace – far more efficient than an open fire – and the gas used is bottled LPG, whose inconvenience of supply actively limits usage. There are two 24,000-litre, in-ground water tanks.

The roof on the pavilion that serves as a musician's retreat can be unbolted and replaced with a

larger one if future extensions become necessary.

“The owners wanted to live in an open fashion in the Australian landscape and wanted an Australian building that would allow that,” says Scott. “The only problem is that, although it was built as a holiday house, they ended up selling their house in the



city and started spending more and more time there.”

#### The Blairgowrie House, Victoria

Sometimes, designing an environmentally responsible house is talked about in terms of being a terribly complex, technical and expensive task, says Melbourne architect Kerstin Thompson.

“But older buildings have been using the same principles for a long time,” she says. “It’s just a question of going back to those well-tested passive principles, rather than fancy mechanical tricks, and taking a different view of expense, since savings can be significant over the longer term.”

**It's about orientation and once you have the bones right, the rest flows from there.**

Thompson approached the design of a holiday home, The Blairgowrie House, on the Mornington Peninsula, in exactly that way. Comprising two pavilions placed perpendicular to one another, the pair protect each other from prevailing winds, to create living areas receiving full north sun.

The compressed cement sheet panels are reminiscent of earlier fibro holiday shacks in the area and, with some being fixed, others perforated and others operable, the house responds to changes in the climate. The perforations soften the light to offer a cool and shady retreat from the