Australia's leading environmental homes

Sustainable living with style



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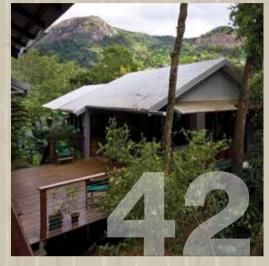
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Editorial

et me describe our house. We live in an inner-Melbourne suburb, which —means we can ride to work in 15 minutes, or even walk if we feel like it. We have access to shops, good schools, a big park and so on. Every time we step outside our door we are treated to stately gardens and elegant Victorian facades. We know we're onto a good thing..

But for the fact that those Victorians made such dismally inefficient

Poorly oriented and dark, when we bought our terrace it was as hot and stuffy in summer as it was cold and draughty in winter. We installed insulation batts in the roof and walls and some shade cloth out the back, and they certainly made a huge difference, but there is so much more we'd

Which is why I personally find the transformation of our two featured period homes in Adelaide (page 60) and Newtown (page 14) so inspiring.

Of course, not everyone chooses to live in a big city, but that doesn't mean they want to be isolated. The residents of the Echlin St apartments in Townsville (page 80) have chosen to live in a smaller residence so that they could be closer to the centre of town.

The Currumbin Ecovillage (page 68), on the other hand, seems a thoroughly not-townish community. But in the way its communal gardens hark back to the London row houses, it is actually reclaiming a forgotten part of our urban heritage.

Which reminds me of another thing we could relearn from the Victorians: thrift. Not in the narrow sense of not spending anything, but in the broader sense of not living beyond our means.

When you see the dismal news stories in the papers and on the TV, one thing becomes clear: we can't go on living like there's no tomorrow. Whether it's future-proofing your house (page 58) or just proofing it against the elements (page 65), everything you do to make your life more sustainable is a little bit of good in a time that desperately needs it.

Verity and I, as the new editors of Sanctuary, hope you find fresh inspiration in these pages to improve your life and lighten your footprint on the planet. The Victorians' legacy is a mixed one, but with our tools and knowledge we have far fewer excuses than they did. By sharing our learnings and opening up our homes and our lives to others - in the same way our generous homeowners did when we put together this edition - we can preserve what is good, and move beyond the rest.



Michael Day & Verity Campbell Co-Editors

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by the Australian Government through the Your Home project



Your Home is a suite of consumer and technical guide materials and tools developed to encourage the design, construction or renovation of homes to be comfortable healthy and more environmentally sustainable

Your Home is a joint initiative of the Australian Government and the design and construction industries. For further information go to www.yourhome.gov.au

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Bi-fold doors leading to a rain-fed plunge pool blur the lines between courtyard and living area, while the pool helps regulate the home's internal climate



This 21st-century makeover comes wrapped in a period skin

By Judy Friedlander

Australian architectural vernacular has found the perfect urban setting with this cutting-edge sustainable home in Newtown, Sydney.

Walk a few blocks south of King Street, with its array of cafes and restaurants, student fashion and book shops, and you are in old Australia – a place of car workshops, 150-year-old pubs, workers' cottages, Victorian terraces, sandstone churches and stately parks graced with Moreton Bay figs.

Right next door to an 1858 hand-hewn sandstone cottage lies this light-on-its-feet home, a prime example of contemporary living that is somehow right at home in its historic surrounds. Old and

new are beautifully paired – a wonderful example of different yet complimentary styles.

In deference to the old facades and streetscapes, this home largely conceals its cutting-edge sustainable side. Only the proud, curved Zincalume roof and aluminium alloy frame that rise above the external brick walls inform the interested passerby of innovation within.

Architect Stephen Sainsbury says it's his goal to make ecologically sound buildings that are "luxurious, exciting and beautiful places to live, work and play". The lightness of the Newtown house is due to the way it cleverly features and



A sun-filled wintergarten warms this colourful Victorian eco-home

By Fiona Negrin

Warmth from the winter sun heats the north-facing wintergarten during the day, at night an extractor fan distributes the warm air to the rest of the house



Jan and Anne's family home in Queens Park is just 10 minutes drive from Geelong but it feels light years away. Light and airy, with lots of wood and flashes of primary colours, the house is tucked away above the Barwon River. It's an idyllic location but the site was a challenging one for the owners, who wanted a good-looking house with environmental sustainability the first priority. "You don't have to compromise on good design to do the environmental thing," says Jan. "We really looked at sustainability first, and then tried to make that look good; not the other way around."

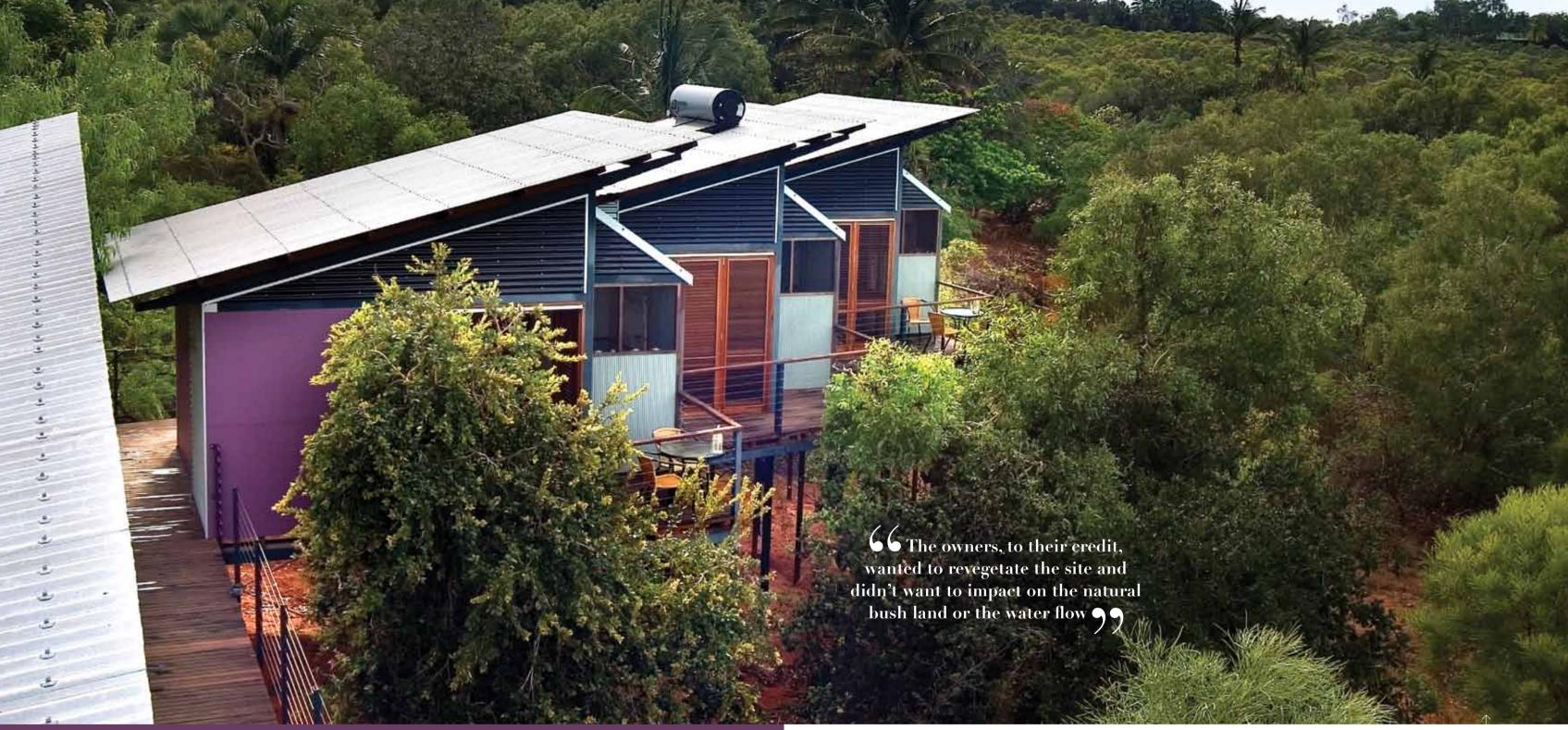
Achieving a successful passive solar house

was the main difficulty, because the site is on a south-facing slope, making it harder to catch the winter sun and difficult to pour a traditional 'slab on ground' concrete floor. Concrete is an ideal material for thermal mass because – coupled with correct solar orientation – it stores and radiates the sun's heat in winter, and preserves the cool of the shade in summer.

To remedy the problem of the south-facing slope, a small cut was made into the slope to provide a level surface for a small concrete slab. The slab stores the sun's heat and maintains thermal stability in the house's open plan living area. An innovative, highly

European inspiration

conctuor



Simple A tropical retreat that's pleasing guests without compromising the environment by Kristen Watts

Old Sures

Old Su

With many people expecting luxury tropical getaways to offer five-star air-conditioned comfort, it was always going to be a risky proposition to build an environmentally-friendly bed and breakfast in the outskirts of Broome.

But when Paradigm Architects were approached to design such a place, despite the extreme weather conditions and remote location, Fiona Hogg had no hesitation in accepting the challenge.

"The people who built Coco Eco were incredibly brave," she says. "Especially since they did not have a contractor and they were owner-builders. But this is the kind of work we specialise in and we are really

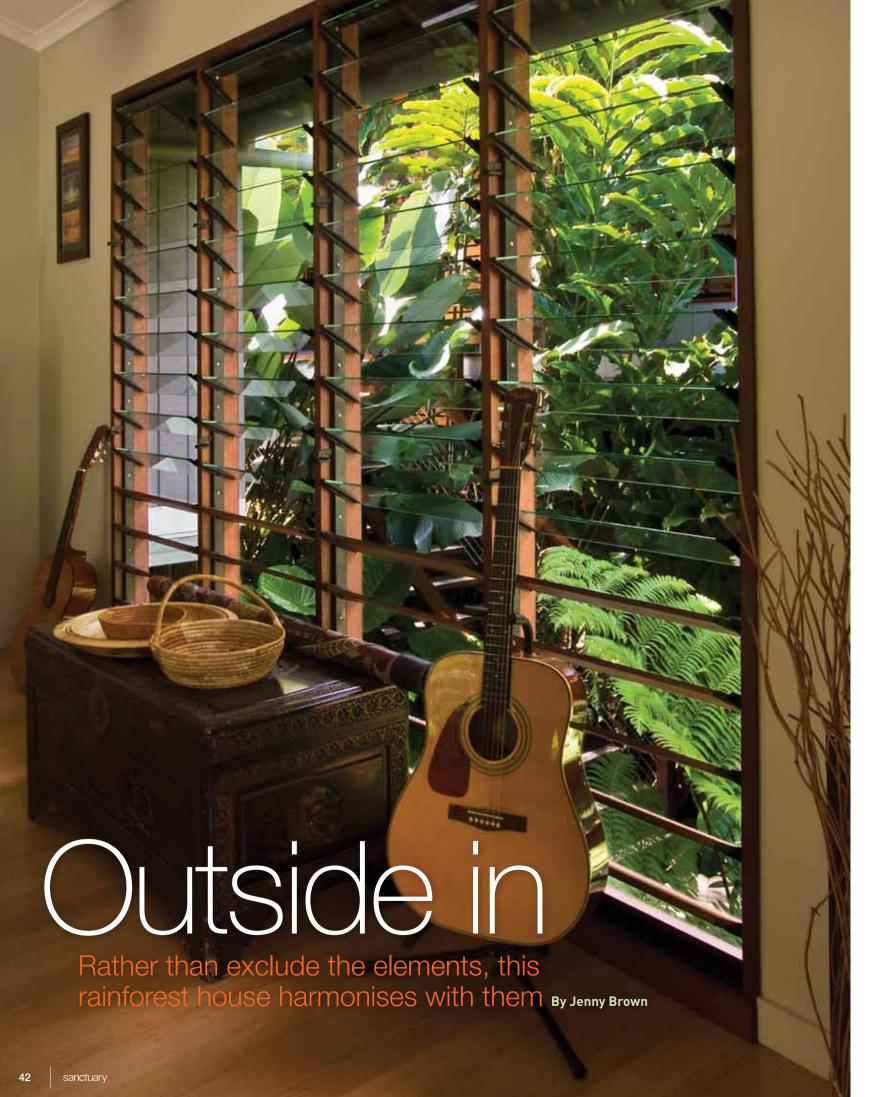
committed to trying to develop environmentally sustainable buildings."

Fiona, now based in Perth, worked in Darwin and Cairns for years so the prospect of designing a sustainable building in Broome was not that daunting

"I knew we could do it, even though many people don't realise that in Broome, as well as the heat, you also have to contend with cool winds coming off the desert, so it can make things tricky."

"The other issue was that the site, while extremely beautiful, is quite remote. It is further up the coast beyond Cable Beach and set behind a Simple rooms are set in revegetated bush land and have private balconies and solar hot water

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The house is designed as two elevated pavilions to catch all possible cross-breezes, while the pitched roofs guide downpours away from the louvred windows



"Never turn your back on an excavator." That's the advice of Sydney building designer Dick Clarke after the "green screen" he'd planned for the vulnerable western face of a sustainable house 15 kilometres north of Cairns was razed. All in a morning's work.

All along the western edge of a 1000 square metre sloping block, the rainforest trees that would have shielded the house from the road and sheltered it from the afternoon sun were flattened. "It was deeply upsetting", says Dick. "And it will take about 20 years to get them back." A bamboo screen must suffice as a shade screen in the meantime.

Fortunately for owners Marty and Helen Rowe,

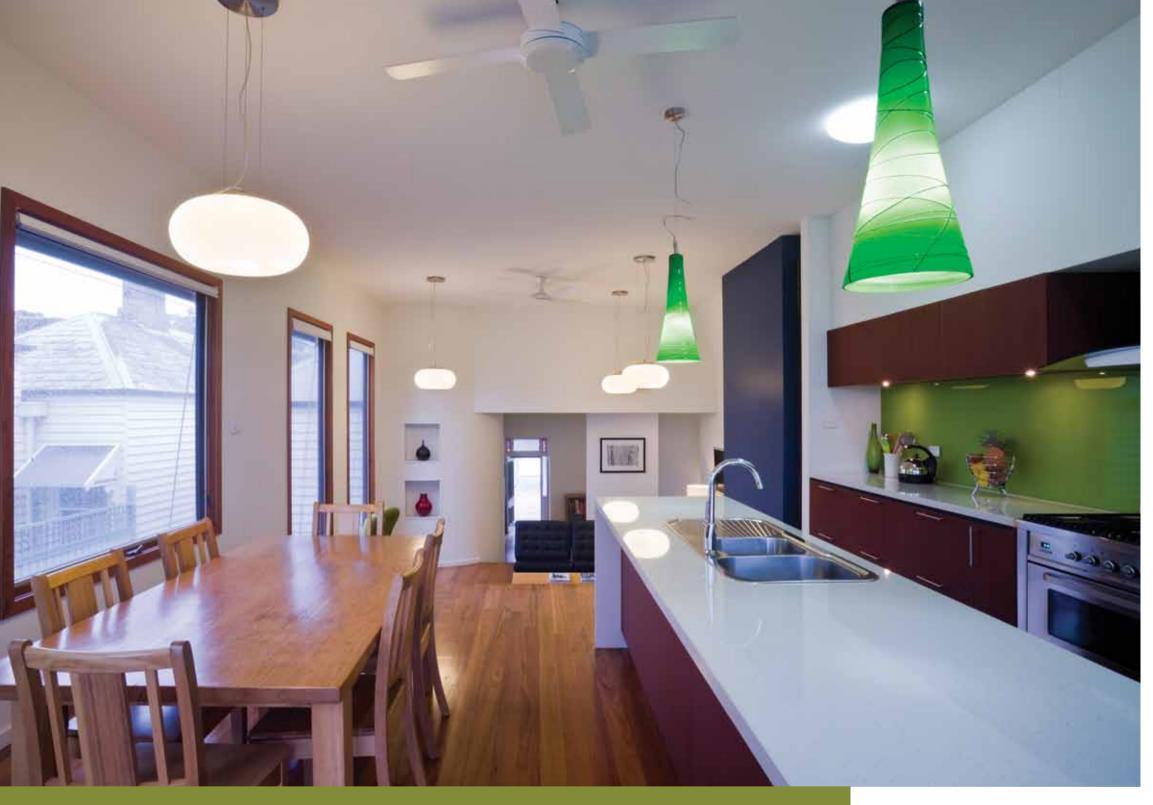
who have been living in the home for the past two years, there are some blessed compensations. They still have their view of the dramatic escarpments of the Kuranda Plateau, while at the rear of the house they enjoy the annual spectacle of a seasonal waterfall crashing two metres beyond the deck of their master bedroom. "Part of the magic of living in the tropics," says Marty.

After spending 11 years working in aboriginal communities on Groote Eylandt in the Gulf of Carpentaria, Marty and Helen were adamant they must continue to live in open engagement with the environment, which around Cairns means World Heritage-listed wet tropics rainforest.

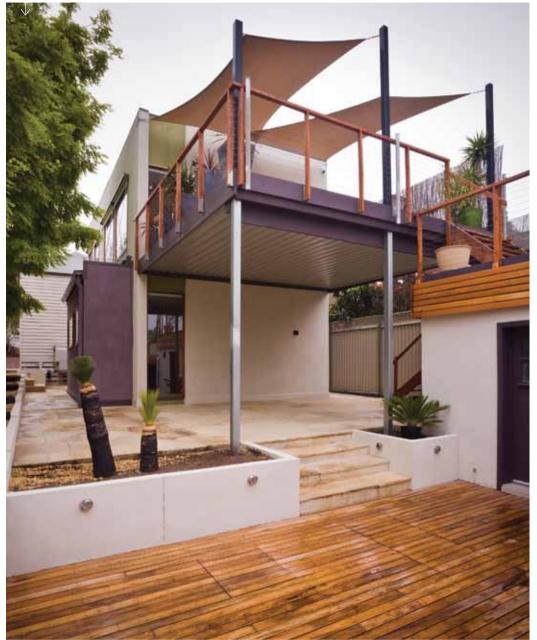
They asked Dick Clarke, who has been working within the evolving parameters of sustainable design since 1977, to design their house in the form of two elevated pavilions - one for living, one for the three bedrooms - and to make it a place that "was brave, that blended with the environment, that caught all possible cross-breezes, and that was climate engaging rather than climate denying".

The Rowes wanted "something different," especially to what Marty sees as the heat-locking insanity of the ground-hugging concrete homes of modern Cairns that "retreat from the environment and that require massive air-conditioning".

They preferred a house that allowed them "to



The line of deciduous shade trees along the northern boundary of the site shade the house in summer and are watered by the 3000 litre greywater system under the deck



Work-life balance

This home-office haven is turning heads, and changing hearts by Verity Campbell

aren and Glenn were cooking dinner one night when there was an unexpected knock at the door. One of the neighbours had come by to find out why their home was lit while the rest of the neighbourhood was blacked out. A quick squiz at their solar system's backup batteries answered her question, and so ended the first of many visits by neighbours wanting to know more about this remarkable renovation.

When Karen and Glenn do things they don't cut corners, and their renovation was no exception. When they bought a double-fronted Victorian house in the leafy Melbourne suburb of Moonee Ponds, they enlisted the Sunpower Design team to create

their green dream home.

"As you get older the idea of chaining yourself to bulldozers loses its appeal; you look for other ways to be an activist, to encourage change. We wanted a house that confirmed our commitment to the environment," says Glenn.

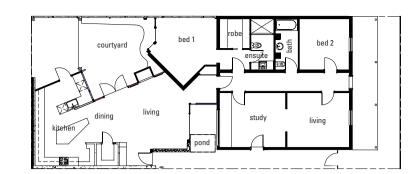
"But it also needed to look good," adds Karen.
"The future lies in creating homes that prove you can be green and have a great-looking house too.
Many people won't compromise on that."

Glenn runs his publishing company from home, so he needed an office where he and his employees could work. The couple wanted two bedrooms, one for guests, and an open-plan living area and



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Reconstituted sandstone pavers throughout the house are sealed with an organic, ultraviolet-safe paint



A fter living in the suburbs, John and Maggie were looking for a lively inner-urban lifestyle close to parklands and work. Years of looking for the right property finally paid off when they found Ada Street, in the southeast of Adelaide's "square mile" CBD.

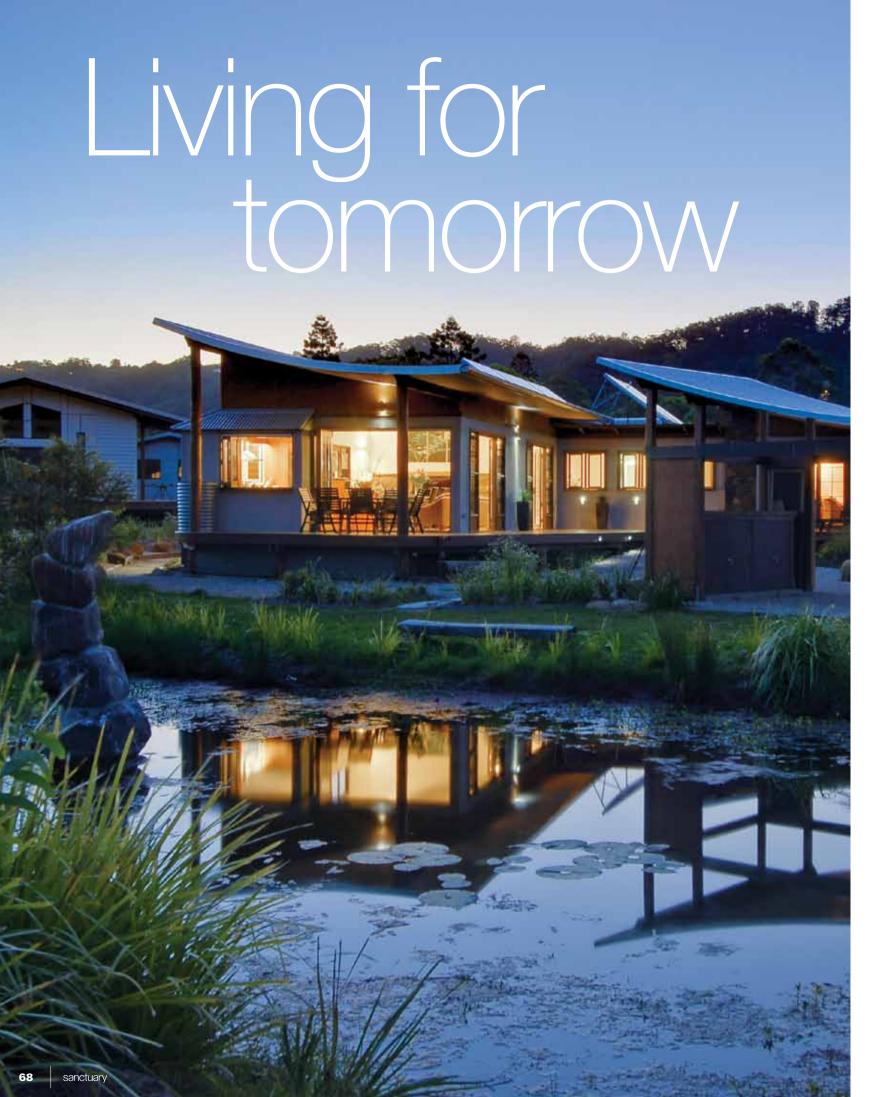
Ada Street is a narrow one-way enclave, where street-front housing and on-street parking has fostered community. Neighbours catch up regularly, and Maggie even plays in a recorder group with other locals.

The house had enough room on the back for an addition and enough width to face north - which was important, because with rising power costs, increasing temperatures and reduced rainfall, the restored 1870s bluestone cottage and its addition needed to be future-proofed for tough times ahead. "We didn't have an energy target as such, but the long-term thinking was we needed a house we could live in using minimal power," John explains.

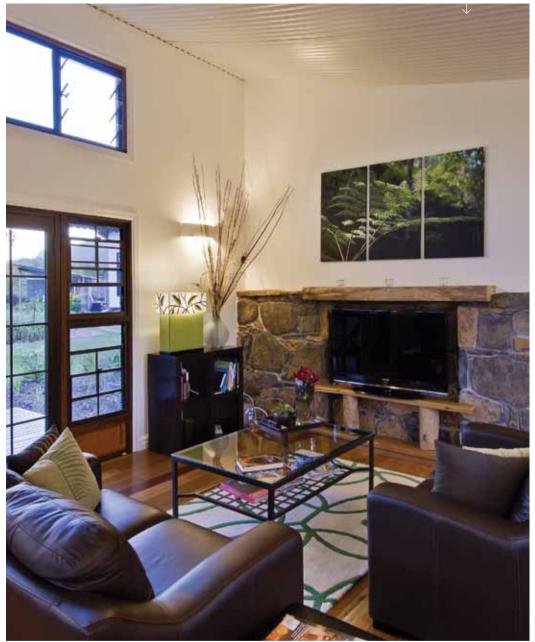
The home is designed to harvest and save as much water as possible - from rainwater collection and 6-star rated taps and showerheads to the latest greywater technology. Thus it has the potential to be 100 per cent water self-reliant – as long as the rain keeps falling.

"We didn't have an open chequebook, so we had to be limited by our budget," John says, "but we believe this is how people should be designing and building: utilising thermal mass and natural cooling systems, and by using heating systems that don't entirely rely on gas and electricity.

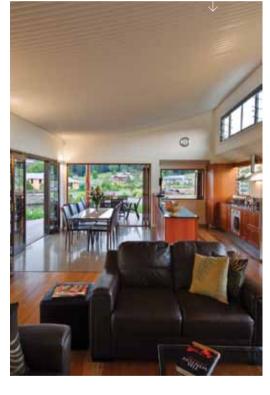
"We also firmly believe in improving the environmental performance of existing dwellings. Extending this philosophy to Ada St meant that heating and cooling systems on the addition feed into the original cottage, and the cottage's thermal performance was improved significantly with the installation of insulation."



Recycled hardwood floors and trim enhance the charm and liveability of living spaces



Corrugated curved roofing is a feature inside and out



On the Gold Coast, you can't stop progress (but you can shape it)

By Danielle Dunsmore

t's a curious fact that the Gold Coast is home to some of Australia's most innovative developments, as well as some of its most excessive.

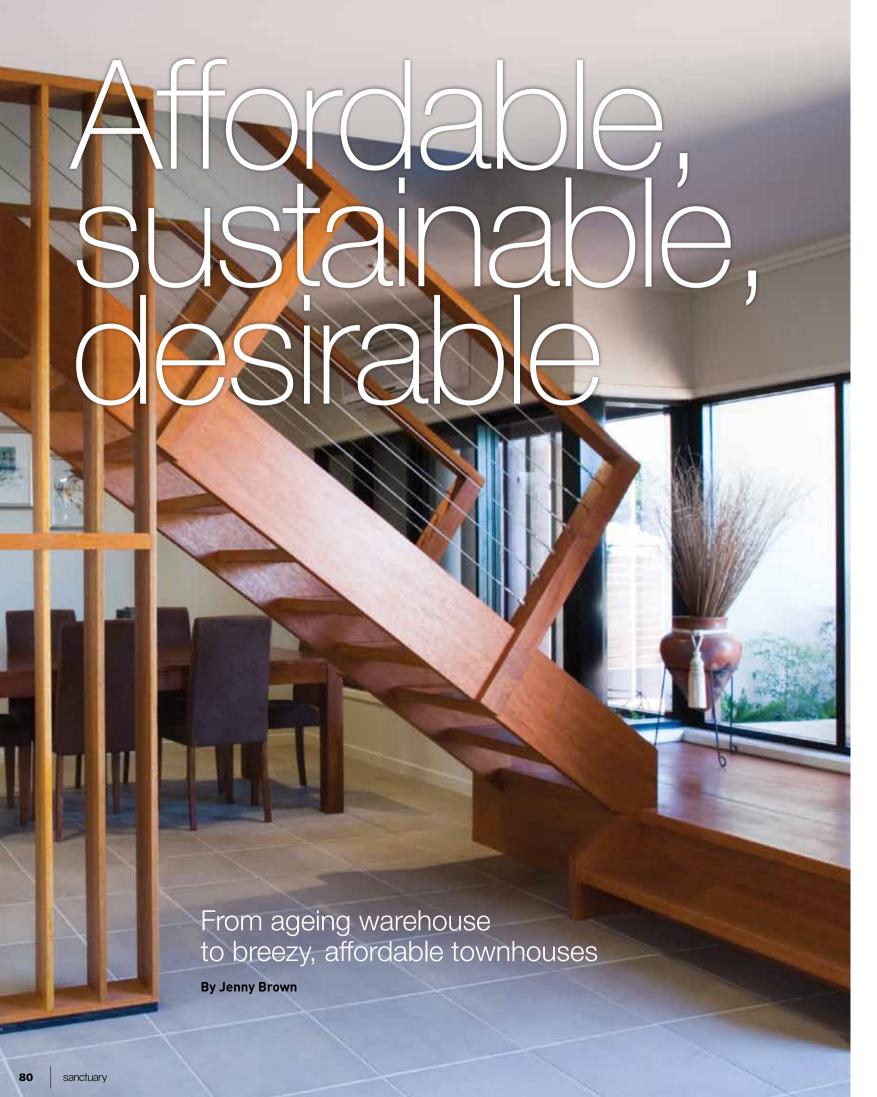
The strip's "knock it down and build something new" mentality has led to a unenviable suburban sprawl. Older suburbs that once boasted quaint Queenslanders now have rows of featureless brick duplexes and apartments.

But drive just a little south and inland of the glitter of Surfers Paradise and you come across a patch of land that aims to set the international benchmark for sustainable living – the Ecovillage at Currumbin.

Recently awarded the World's Best Environmental Development in the 2008 International Real Estate Federation's "Prix D'Excellence" Awards in Amsterdam, this lofty aim has become reality.

Sanctuary spent a few hours with the brains behind this innovative project – husband and wife team Chris Walton and Kerry Shepherd – respectively the project's Managing Director and Marketing Manager.

The couple, along with their nine-year-old son Fin, built and live in one of the estate's first buildings, the aptly named "Living Laboratory", voted HIA's 2008 Greensmart National Building of the Year.





or Brendon Douglas and his mother-in-law, Carmel Dalla Pozza, developers of an environmentally friendly townhouse complex, things couldn't have started with a worse prognosis.

When they took their idea to convert a concrete warehouse in Townsville's West End into 16 residential units to local real estate agents, they told them that even if they sold them at below building cost "we'd be robbing people".

The key to Brendon and Carmel's plan was to minimise costs and to make low-density housing that would be economically attractive to potential buyers. That meant re-using the concrete walls, floors and Colourbond roof of the

existing warehouse.

Many doubted if the conversion could work. The two were intent on retaining the concrete warehouse shell - a heat-trapping feature in a place where conditions range, as Brendon says, "from hot to very hot".

An ex-army man, Brendon was undeterred. He got his real estate license, became the development's full-time project manager and set about enlisting the help of an architect who would convert his vision into a plan.

After one or two false starts, Brendon found a sympathetic design partner in David Stefanovic of Architects North.

Distinctive, ventilated transformed the warehouse shells into attractive townhouses, while ensuring airflow carries from the breeze corridor into living spaces

Reach for the light Aclever as

A clever addition opens up, lightens

by Judy Friedlander





The sustainably harvested bamboo floor is perfectly paired with bone-white walls and ceiling

> addition peeks over the existing facade, allowing northern light to enter the addition

The top of the new



t's the classic makeover story: a neglected figure with a warm heart grown cold, just waiting for the

Three years ago, this bungalow in Sydney's West Ryde was forlorn and "homely". The rooms were dark, there was limited ventilation and the walls were cracking. But with the aid of some imagination and foresight, owners Kenneth and Terri saw the belle it could become.

"We felt the house had loads of potential and thought the location was perfect," says Kenneth. And there were features they wanted to keep, such as the high, ornate ceilings, solid doors and

Kenneth and Terri bought the house when their first child was one and a half. Renovation was on the agenda, and after being introduced to architects Carol Marra and Ken Yeh through mutual friends, they became convinced the house could take on a much lighter, brighter quality.

"There was an ad hoc extension on the back of the house but it let in little light," says Kenneth. "We thought we could extend out the back and add a deck and bifolds but we never thought about what Carol suggested, which was removing the old extension and starting again.

"We loved their ideas, particularly their attention to detail and their whole take on sustainability."

Marra + Yeh are strong advocates of restoring and re-using existing buildings and materials, which they say, contributes to sustainability in reducing embodied energy.

Embodied Energy is the energy expended in all stages of a material or product's life cycle, including its manufacture and transportation. It contributes between 10 and 45 per cent of a home's greenhouse gases over the home's life. The remainder are described as "operational".