

MODERN GREEN HOMES Sanctuary

INSIDE ISSUE 32 115+ green products and design tips; Sustainable House Day;
Aquaponics at home; Worker's cottage with a twist; Renovate or start again

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ISSUE 32 • SPRING 2015
AUD\$11.95 • NZ\$12.95
SANCTUARYMAGAZINE.ORG.AU

ISSN 1833-1416



9 771833 141000

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The angles at the back of the house have been carefully designed to match sun angles through the year, providing solar access in winter and blocking it in summer.



Best of both worlds

In inner suburban Adelaide, a heritage worker's cottage takes advantage of a deep block and considered connections for a respectful, yet distinct light-filled extension.

WORDS Anna Cumming

PHOTOGRAPHY Belinda Monck

WALKING DOWN THE STREET IN

Adelaide's inner north-western suburb of Croydon, it's easy to spot architect Jon Lowe and his partner Jess Murrell's place. The tiny turn-of-the-20th-century worker's cottage sits with its narrow front verandah nudging the footpath, its facade largely unchanged since its industrial beginnings. Behind the facade though, in a mirror to the suburb's transformation, the old lady has been dressed up: a glance down the side lane reveals steel-framed, Colorbond rectangular forms with plenty of glazing, swivelled towards north.

Despite the marked contrast between heritage and modern, the two parts of the house sit well together. They are connected and kept distinct by a glazed link, a design feature that was part of a staged building schedule. "We'd been living in the cottage for five years already and planned to stay there during construction," explains Jon, "so the link was going to be the final stage of the build," but in the end their son Ezra arrived a month before construction started, so they opted to move out.

→





Green homes on show

Sanctuary previews just some of the houses open as part of Sustainable House Day this September.

TAKE A SNEAK PEEK INSIDE SOME OF AUSTRALIA'S most environmentally friendly houses this September as part of Sustainable House Day. This is a chance to see first-hand what other people have done in your community and to learn from their experiences. Homes are open across Australia, with homeowners on hand to offer advice on replicating the sustainable features of their properties.

Australia's largest national sustainable homes event is jointly run by the Alternative Technology Association (ATA, publishers of *Sanctuary*) and EnviroShop.

"We are excited and proud to be delivering Sustainable House Day 2015," said Donna Luckman, the ATA's chief executive.

"Having already been involved with Sustainable House Day for many years, we see the event as a great opportunity to reach the next wave of homeowners looking to build or renovate sustainably."

Sustainable House Day has grown to be a calendar favourite for

the environmentally savvy, with recent events seeing 200 homes open their doors to over 40,000 people, signalling the growing interest in sustainable living in Australia.

Sustainable House Day gives anyone from industry professional to curious novice an insight into just how much can be gained from going green.

To visit houses, register on the Sustainable House Day website where you can find and add your preferred houses to your favourites list.

Sustainable House Day takes place on Sunday September 13

Register to attend or show your house online.

www.sustainablehouseday.com

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Image: Jim Gall

TRICKED-OUT QUEENSLANDER

In the heart of Brisbane's West End, a studio designed by Gall Architects for environmentally aware graphic design firm Inkahoots will welcome visitors on Sustainable House Day. It was converted from an old Queenslander sporting a 1950s facade that was "something of a little timber and stucco Parthenon," says architect Jim Gall: "In one sense it's a shame, but mainly we see it as a delightful potted history of the celebrated impacts of cultural groups on the area."

On the tight 260-square-metre site, the project aimed to make the best use of space in the urban setting and involved a two-storey studio (used by ten people each day) in the original house and a three-storey separate dwelling behind. Recycled materials were used where possible, including colourful cladding on the house made from reclaimed road signs. A timber slat wall forms the new facade, providing shading, some privacy and a framework for greenery.

Due to noise issues, "ventilation was hard to achieve to the desired degree," says Jim. The tall, narrow house and small site also made it difficult to optimise passive thermal design, but he is pleased with the result. "It's an interesting story of how to deal with those challenges and get the best solution possible."



Recycled materials were used where possible, including colourful cladding on the house behind the studio made from reclaimed road signs.



Images: Salt Studio



Image: Sarah House

A GREEN ROOF IN THE SUBURBS

In historic Port Adelaide, this compact, energy-positive home by Salt Studio is one of two built on the site of the Barnes family home. The last resident before the demolition of the badly termite-affected circa 1900 house was Reginald, stepfather of famous local boy Jimmy Barnes. To retain links to some of the site's history and reduce the reliance on new materials, floorboards, doors and timber structural elements were reused from the original house. Other materials were chosen for their low embodied energy in a bid to keep the overall environmental impact of the home small.

In addition to north-facing windows (with appropriate shading for summer) and polished concrete floors, phase change material (PCM) was used in the walls to help regulate the internal temperature of the house year-round. Another feature is the green roof that helps to insulate the house, slow stormwater runoff and reduce urban air pollution. Salt Studio's Libby Warwick and Andrew Pawlowski have a vision they call 'Scruburbia' in which "native vegetation has reclaimed its place as the dominant feature of the built environment" through wide-scale adoption of green roofs and walls. The Port Adelaide house uses 'off-the-shelf' components to explore how an economical, self-maintaining green roof with indigenous plants can be created.

HOUSE & GARDEN RETROFIT

Chris Ferreira, of sustainability enterprise The Forever Project, has retrofitted his family's 1950s home in Hamilton Hill "so that it doesn't guzzle water, leak nutrients, swelter in summer, shiver in winter and need an air conditioner to be comfortable." He's opening his house and garden this year for Sustainable House Day, to show how it's bloomed and how it's integral to living a comfortable, low-impact lifestyle in the house.

Rainwater tanks, a waterwise garden design, a select collection of native species, greywater systems and other water saving devices have cut mains water use by 50 per cent at this site, with the garden continuing to thrive in Perth's hot summers. Careful choice and placement of trees and shrubs provide natural heating and cooling to the house and reduces energy consumption. And Chris' soil improvement efforts, compost beds and worm farms have reduced stormwater and nutrient runoff – keeping local creeks cleaner – and allowed for a productive food garden of fruit trees, vegies and herbs for the family. The house itself has benefitted from the installation of double glazing, solar panels, and reflective paint on the ceramic roof tiles to help keep the roof space cooler. The retrofit used recycled materials wherever possible in both the house and the garden.



The new lightweight addition is clearly distinguishable against the heavy masonry of the original building. The large amounts of wood used, for its low embodied energy and to limit heat-retentive mass, is all FSC-certified – the recommended sustainability standard for any new timber. The floors, exterior deck and solid island bench are spotted gum, while the sliding doors on two sides are western red cedar.

Surprise package

WORDS Rachael Bernston
PHOTOGRAPHY Jackie Chan

When Jodie and Declan O’Callaghan first inspected this tired old beauty, they saw character and potential, but didn’t realise just how well the house would suit their growing family.



↑
Sitting on the northern corner – partly inside, mostly outside – is a pod clad in FSC-certified western red cedar that boasts a built-in seat on the deck side, and a concealed door off the dining area. Inside is an egg-shaped combined bathroom and laundry, brightly lined with white tiles and naturally lit thanks to a bank of louvres at the far end.

↑
Jodie says architect and builder Clinton Cole gave them many ideas to make their lives simpler, including the curvaceous nook beneath the stairs, where all four girls sometimes play games, read books or try to slide down the walls.

THIS GRAND VICTORIAN SEMI- detached home in Sydney's inner west had been split in two and rented as upstairs and downstairs flats when Jodie and Declan O'Callaghan bought it five years ago. Jodie loved the original features throughout; there were five fireplaces, tall ornate ceilings, generous-sized rooms and a wide hallway. But the back rooms were small and poky, with little natural light and no connection to the expansive garden.

The couple had an infant daughter and planned to have another child, so they thought a simple renovation would return the house to a single dwelling and add some modern comforts. Little did they know that fate would deliver them triplets; the shock revelation put their renovation plans on hold, and when they picked them up again it was with a need to accommodate a family of six.

Luckily, when they approached Clinton

Cole, an architect and builder recommended by an architect friend, they found someone who could not only visualise their perfect home, but construct it too.

The brief was straightforward: more bedrooms (Clinton inserted two into the attic with skylight windows so as not to alter the roofline, with a bathroom between them), and an open plan kitchen and dining room.

The new addition is clearly delineated from the heavy masonry of the original house with the extensive use of timber, a material Clinton prefers for its low embodied energy and ease of installation. He also designs spaces and specifies joinery in line with the lengths available to minimise waste.

The original pressed metal ceilings were supplemented with new pieces to create a chequerboard effect – both to recycle those materials and to inject some of the home's

ornate character into the new room.

An attention to cross-ventilation, careful orientation and shading, and extensive planting alongside the open plan space help keep it cool in summer and warm in winter. "Even when it's raining, we can open all the doors in this room and feel like we are outside: it's such a fantastic space," Jodie says.

"I can't put into words how much difference this house has made to our lives," she says. "And Clinton gave us so many little ideas that make our lives simpler," she continues, pointing to the stainless steel folding benchtop, which can be raised when the rear sliding doors are open to join the interior and exterior benches.

"We didn't realise that our family was going to be this big when we bought this house, but now that it's finished, we have no reason to ever live anywhere else." ⑤

Harvest to last



An ancient practice to sustain populations through the seasons, food preservation is making a comeback in suburban Australia. The ATA's Kate Leslie shares some of her experiences, with some good tips for reducing waste and making the most of your garden's bounty.

WORDS Kate Leslie

PHOTOGRAPHY Graham Parsons

"THE FIRST SUPERMARKET"

supposedly appeared on the American landscape in 1946. That is not very long ago. Until then, where was all the food? Dear folks, the food was in homes, gardens, local fields, and forests. It was near kitchens, near tables, near bedsides. It was in the pantry, the cellar, the backyard."

– Joel Salatin, farmer and author.

There's certainly pleasure to be had from preserving food. How good is an apricot crumble in winter? Indeed, there is a clear resurgence in interest in home food preserving. Many households still make jam with stonefruit in summer or marmalade in winter. Less common perhaps, some households home-brew, make homemade cheese, cure sausages and invite friends and

family for passata days.

While in Australia with our relatively benign seasons and year-round food production, fermenting isn't necessary for winter survival, there are definite gains to be had by stretching our home-grown harvests. It helps to reduce reliance on imported and transported food, and offers more variety for our tables throughout the year.

Preserving food past when it would otherwise decay for eating at a later date is a science, with a dash of art. Whole books are written on each topic, but in short, preserving food can be achieved by applying one or more of heat, cold, sugar, salt, alcohol or culturing microbes, whether already present or introduced. →



OUTDOORS

FERMENTATION



The Northern Preservation Society was founded in 2013 by Melbourne shoemaker Jo Lawson upon her return from making sausages and passata on a farm in Italy. They hold regular meetings to share their pickled, fermented or otherwise preserved wares and the lessons they learned in the process.



The favourite foods of our culture are fermented – think wine and beer, bread, cheese and cured meats. Fermenting produces a dizzying array of products including alcohol, vinegar and pickles.

I was once part of a group called Fermenting Friday Friends, a monthly, open-invitation experimentation with a different ferment focus each month. It allowed each of us to find those ferments which could fall in with the rhythms of our lives. Another group, the Fermenting Friday Fumblers has met this year to try yoghurt. Why not start your own fermenting experiments with friends or in a group?

Fermentation guru Sandor Katz champions this happy intersection of cultures in his book *The Art of Fermentation*: “I keep coming back to the profound significance of the fact that we use the same word – culture – to describe the community of bacteria that transforms milk into yogurt, as well as the practice of subsistence itself, language, music, art, literature, science, spiritual practices, belief system, and all that human beings seek...”.

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FURTHER INFORMATION

Two of Kate’s recommended reads:
The Art of Fermentation by Sandor Katz,
The Complete Idiot’s Guide to Fermented Foods, by Wardeh Harmon
www.wildfermentation.com



Kate Leslie is an energy and water analyst at the ATA. She is also a keen permaculturalist and is involved in local grassroots activism through the Transition Towns movement.

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How good is an apricot crumble in winter? Excess bounty from your fruit trees can be preserved for enjoyment when its growing season is over, reducing the need to buy non-seasonal and transported fruit.

Image: Enoch Lau

As an example, in the last year alone, our household has preserved food in the following ways:

Heat – dried tomatoes on trays in the sun, oven-dried slippery jack mushrooms, air-dried herbs; peppermint, nettle, oregano and winter savory, apricots in glass jars heated through a water-bath

Sugar – lemon curd, apricot jam

Freezing – home-made stock

Alcohol – vanilla essence (placed whole vanilla pods into vodka)

Introduced microbes to ferment – kombucha and tibicos (naturally carbonated soft drinks), dairy kefir (yoghurt-like) and cheese balls, fermented tomato passata (added unpasteurised whey) and kvass (beetroot tonic, whey added)

Salt, cultured with own microbes – nasturtium buds, olives.

It’s a long way from a self-sufficient pantry but we’re having fun and learning food preserving skills one at a time.