

# Sanctuary

MODERN GREEN HOMES

ISSUE  
70

VOLUME BUILD  
SPECIAL

Sustainable House Day sneak peek; greener project home tips;  
lush backyard retreat; diving into natural swimming pools and more

*Isabel & Elsie*

A pair of homes  
designed to nurture

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## HOUSE PROFILES

Olive Tree House; image: Katherine Lu



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### Sustainable House Day special

We bring you everything you need to know about this year's flagship event – happening on Sunday 4 May 2025 and over the following month – plus a tantalising preview of some of our favourite participating homes.



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### A way forward

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### Little secret

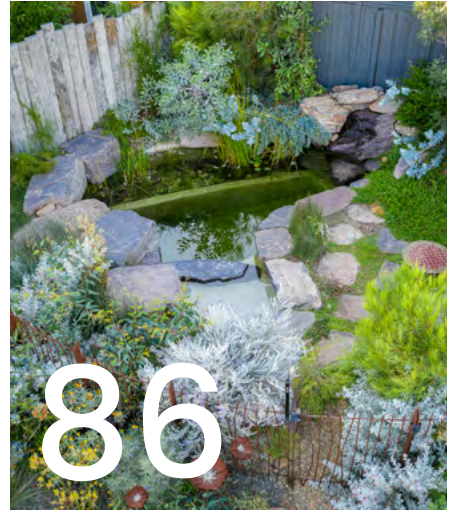
Canny tricks, legwork and partnering with a volume builder delivered an affordable, sustainable home for this young Melbourne couple.



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## PRODUCTS



### 4 Silent spaces

Sound-absorbing materials like carpets and rugs can help create a quieter home, but acoustic panels can make a real difference in noisy spaces. Autex Quietspace acoustic panels absorb up to 85 per cent of sound energy, reducing reverberation. Made from polyester fibre with at least 60 per cent recycled content, they are easy to install – even around lighting – and come in standard black, white or grey. Autex Vertiface overlays can add a more colourful touch. Quietspace panels are locally made and come in wall and ceiling versions.

[autexacoustics.com.au](http://autexacoustics.com.au)

### 5 Easy-clean carpet

Cleaning stains from your carpet with nothing but water sounds too good to be true, especially for anyone with kids or pets, but it's possible with Godfrey Hirst's Triexta carpet range. Made from Sorona, a fibre that comprises around 40 per cent renewable materials like corn glucose, the carpet is naturally stain-resistant and most spills can be dealt with using water, rendering chemical cleaners unnecessary. The carpet is locally made and certified Red List Free, meaning it meets stringent standards for chemical constituents.

[godfreyhirst.com/au](http://godfreyhirst.com/au)



### 6 Cool ply caravans

Plywood is perfect for fitting out tiny homes and caravans due to its light weight, durability and strength. Plyco has quite a range of plywood products for caravans, including their Laminated Poplar Plywood, which uses panels sourced from FSC-certified Italian poplar plantations. The timber is then pressed with laminates in Plyco's Melbourne facility. The finished product can be used anywhere where weight is important and suits cabinetry, wall linings and furniture. It comes in various thicknesses and the colour range includes mint, rust, sky and raven as well as snow, pictured.

[plyco.com.au](http://plyco.com.au)



# Olive Tree House

Near the beach in Newcastle, New South Wales, this new build makes the most of a tiny subdivided site for truly inspired urban infill. Designed around existing mature trees on the block, the house is orientated to the laneway on the west and also engages with the street to the north, taking on a role of passive surveillance and fostering a sense of community in its coastal suburban surroundings.

At only 120 square metres, the three-bedroom, single-bathroom home employs design tricks and careful detailing to ensure that it feels larger than it is. A raised deck built around a feature olive tree connects two small interior living rooms, almost doubling the living space when the weather is fine. Built-in furniture allows for smaller rooms and more

storage, and a hallway to the extra toilet has a second function of doubling the size of the laundry.

Future adaptability was also a key consideration. The second bedroom has been designed to accommodate bunk beds down the track, when the children grow. The third bedroom, downstairs, is currently doing duty as a study, but space is available upstairs for a study nook when that bedroom is needed.

“This house has been designed to challenge the Australian norm of housing,” says architect and homeowner Jo Bastian. “It’s half the size of an average Australian home, sits on a site half the size of an average site, and provides flexible rather than large living spaces.”

## DESIGNER

Bastian Architecture

## BUILDER

Smart Additions

## PROJECT TYPE

New build

## LOCATION

Stockton, NSW  
(Worimi Country)

## SIZE

House 120m<sup>2</sup>  
Land 215m<sup>2</sup>

## PHOTOGRAPHY

Katherine Lu

Participating in Sustainable House Day 2025.  
Search for ‘Olive Tree House’ at [sustainablehouseday.com](https://sustainablehouseday.com)



**HOUSE PROFILE**  
Hobart, TAS

**WORDS**  
Anna Cumming

**PHOTOGRAPHY**  
Adam Gibson

# A way forward

In Hobart, a pair of affordable, replicable and nurturing homes are a prototype for sustainable social housing.

## **AT A GLANCE**

- *Two small-scale 7.4-Star homes on a subdivided block*
- *Designed to support women and children recovering from family violence*
- *Beauty, calm and security front and centre*





**AT A GLANCE**

- *Three-storey terrace optimised for comfortable family life*
- *Awkward layout fixed and attic art studio created*
- *Flow, ventilation and natural light improved*
- *All-electric home with no need for active heating or cooling*



HOUSE PROFILE  
*Forest Lodge, NSW*

WORDS  
*Brita Frost*

PHOTOGRAPHY  
*Katherine Lu*

# More flow, more fun

A complete overhaul of Emily and Denny's small, dark heritage terrace in inner Sydney has improved it out of sight.

When Emily and Denny Handlin moved into their small terrace in Forest Lodge, Sydney, in 2020, they did so in full awareness that it was going to be a hard place to live in. It was dark. Nothing about the floor plan made sense, including the two sets of stairs, one at either end of the house. To get to the children's bedroom, they had to walk through the bathroom. "We lived in the house like that for about a year before we started the renovation," says Emily. "And it was horrible. The bathroom wasn't private. People could come in from any direction, and I hated having to walk through it every time I went

to read my kids a book."

After living in their less-than-ideal home all through that relentless first year of Covid, the couple engaged architecture firm Sandbox Studio to help them fix it. "We loved Sandbox's work. We walked them through the house saying, we don't like this and we don't like that. And they asked, 'Well, what do you want?'," recalls Emily. "And I remember sitting at our dark kitchen table and saying, we want it to flow. It was a clear, simple brief. We wanted the house to flow and to have more sunlight."



## LEGEND

- 1 Entry
- 2 Bedroom
- 3 Living
- 4 Kitchen
- 5 Dining
- 6 Bathroom
- 7 Laundry
- 8 Toilet
- 9 Study
- 10 Pantry
- 11 Reading nook
- 12 Garage
- 13 Deck with pergola
- 14 Sliding gate from laneway
- 15 Water tank

## SPECIFICATIONS

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### DESIGNER

Nathan Burgess

### BUILDER

Volume builder

### PROJECT TYPE

New build

### LOCATION

Reservoir, VIC  
(Wurundjeri Country)

### COST

Land \$330,000  
Build \$486,000  
Completed 2023

### SIZE

House 161m<sup>2</sup>  
Land 305m<sup>2</sup>

### ENERGY RATING

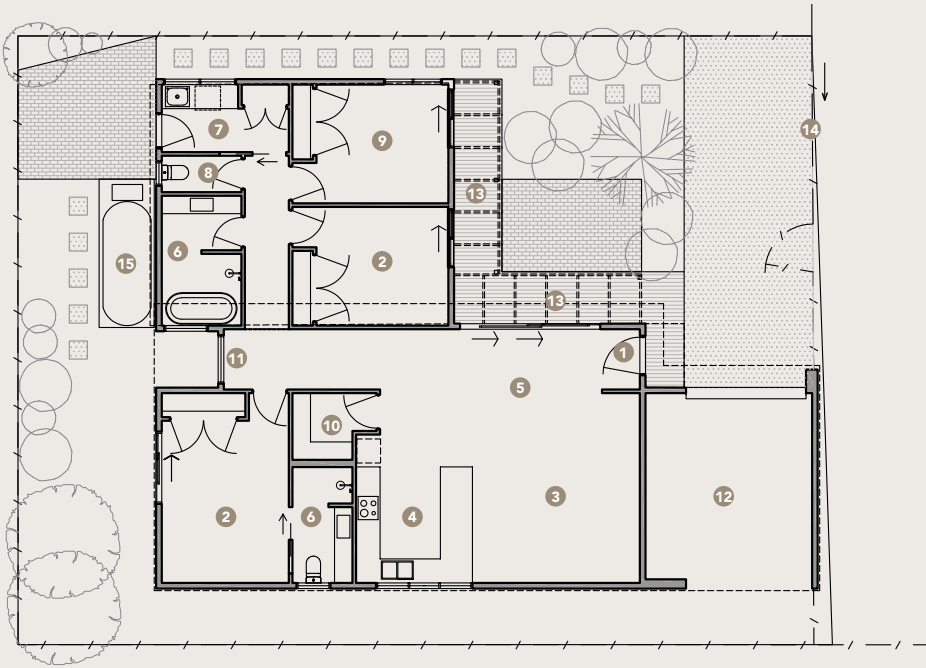
7.5 Stars

### ENERGY ASSESSOR

Australian Energy Raters

Above "I love the reading nook – I use it every day for meditating," says homeowner Jess.

## FLOOR PLAN



### HOT WATER

- Rheem Ambiheat 270L heat pump

### RENEWABLE ENERGY

- 6kW solar PV system from Eko Energy (now Energy Australia) through Darebin Solar Savers Scheme

### WATER SAVING

- 6,000L rainwater tank for toilets, washing machine and garden
- Water-efficient tapware and fixtures

### PASSIVE DESIGN, HEATING & COOLING

- Living spaces orientated north for passive solar performance
- Eaves designed to block sun in summer and admit it in winter
- Heka Hood to front door for shading and weatherproofing
- Operable clerestory windows to admit northern sun and for stack ventilation
- Awning windows for cross ventilation while keeping rain out
- Norman honeycomb blinds for winter heat retention
- Pergola planted with deciduous vines for winter sun and summer shading

### ACTIVE HEATING & COOLING

- Fujitsu 10kW multi-head reverse-cycle air conditioner to living area, study and bedrooms

### BUILDING MATERIALS

- Timber frame construction using prefabricated framing sections
- Colorbond roof
- Cladding: Modinex shiplap cedar and painted Hardie Axon panels
- Concrete waffle pod slab
- Tempo Premium engineered timber floor in blackbutt from Perfect Timber Floors
- Insulation: glasswool batts to ceiling (R5) and all walls (R2.5)
- Laminex joinery
- Kethy timber drawer pulls and handles
- Decking and fence: sustainably sourced macrocarpa from CERES Fair Wood

### WINDOWS & GLAZING

- Dowell Windows timber-framed, double-glazed windows and doors

### LIGHTING

- LED downlights and wall lights, some dimmable

### COOKING

- Bosch 60cm induction cooktop and electric oven

### PAINTS, FINISHES & FLOOR COVERINGS

- Haymes and Dulux low-VOC interior and exterior paints
- Haymes UVEX clear finish to cedar cladding
- Secondhand Dinosaur Designs rug in living room

### OTHER ESD FEATURES

- Shelving system, coffee table and desk from Like Butter, sustainable furniture designers based in Castlemaine
- TV cabinet and window seat top custom designed by Lachlan Denton, local furniture maker
- Furniture and landscaping supplies mostly secondhand
- Homeowners ride bikes and catch public transport, using their one shared car sparingly
- Garden includes vegetables, fruits, flowers and native plants



**Above** A carefully chosen colour palette makes for a serene bathroom.



## RETHINKING FUTURE- PROOFING

Sustainable design advocate and architect Shae Parker McCashen encourages you to challenge the conventional notion of 'bigger is better' when it comes to truly future-proofing your home.

**Above** The owners of this mid-century Melbourne home wanted a flexible, multi-generational space for family stays. The addition designed by Green Sheep Collective includes a simple yet robust living area extension, a versatile second lounge, and a strong connection to the garden and outdoor living space. **Facing page** The award-winning design for Omnia House by Elizabeth Wheeler and Tamar Boyd – not yet actually built – incorporates maximum flexibility of use for its three bedrooms, two living areas and a study, allowing the 160-square-metre home to function as one family dwelling or two separate ones as residents' needs change. Read more in *Sanctuary* 62. Image: Elizabeth Wheeler



## HARMONY IN HABITAT

**Above** Built in an Area of Outstanding Natural Beauty in Hertfordshire, UK, Foxglove House has been designed with connection to place and enhancement of its surroundings firmly in mind. See our case study on p78 for more. Image: Edmund Sumner

**In this final instalment of my biophilic design series, I explore two essentials for creating homes that foster a deep connection to nature: place-based relationships and evolved human-nature relationships.**

**Below** This small natural pool by Phillip Johnson is in Williamstown, Melbourne. It blends seamlessly into the surrounding garden, while still meeting backyard pool regulations.





## Australian homeowners have increasingly been turning to natural pools as an eco-friendly alternative to traditional swimming pools. Jacqui Hagen dives in.

The concept of 'natural swimming' has been getting more and more popular in recent years. Essentially, the term refers to swimming in bodies of water that are not chemically treated. The novelty can be somewhat lost on many of us living in Australia, as we're fortunate to be surrounded by pristine waterways and beaches perfect for swimming. And yet, there's one side of the trend that we can fully get behind: the construction of natural swimming pools as part of landscape design.

Also known as eco pools or biological pools, natural pools don't rely on traditional chemicals like chlorine to maintain water cleanliness. Instead, they use the natural filtration power of plants, gravel, and beneficial bacteria to purify the water. With crystal-clear waters, lush plant life, and no expensive chemical upkeep, it's hard to believe that they are not more common.

### **NATURAL POOLS FOR SWIMMING**

Natural pools for swimming are designed to mimic the water

purification processes found in ponds, lakes and streams, offering an environmentally friendly alternative to chemical-based pools. The pools are typically divided into two zones: the swimming area and the filtration zone. The water in the swimming area is filtered and purified by the filtration zone, which contains aquatic plants and gravel beds that act as a biological filtration system. Plants help absorb nutrients from the water, while microorganisms living amongst the gravel break down organic matter and remove contaminants.

Phillip Johnson is an award-winning landscape designer who's globally recognised for his natural swimming pools. Phillip looks to wild Australian landscapes to inspire his designs, creating gardens full of tumbling boulders, winding paths that blend organically into their surrounds, and pockets of indigenous plants fringing sparkling pools. I reached out to Phillip to discuss why natural pools are becoming so popular, and what people need to

## DESIGNERS IN PROFILE



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### JAMES GOODLET

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Building designer

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Altereco Design

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[altereco.net.au](http://altereco.net.au)

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Works in Victoria

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#### **What kind of house did you grow up in?**

I spent all my childhood in weatherboard houses. During my primary school years we lived in a beautiful single-fronted Victorian house in Northcote, Melbourne, before we moved to Apollo Bay and into an Edwardian weatherboard.

#### **What was the first design project you were really proud of?**

Since moving to Anglesea a couple of years ago I've revisited a couple of projects that I did in the area back in the late 2000s when I was freelancing, that gave me the confidence to set up my solo practice. There were a couple of homes in Bellbrae that incorporated rammed earth, and a post-and-beam house in the Painkalac valley behind Aireys Inlet. I often reflect on how grateful I am to have been given the opportunity to work on those projects. The clients took a big punt, as I had no runs on the board!

#### **What is your favourite sustainable building and why?**

This is a really interesting question. The most sustainable thing to do is not to build anything; the next best thing is to retrofit an existing building. I think the unique and refreshing Willam Ngarrang Retrofit project, an upgrade of a 1970s apartment building in Melbourne's Fitzroy by Kennedy Nolan and Wilderness Building Co., is a great example of a responsible architectural approach to an in-demand inner urban typology.

#### **What's on your drawing board right now?**

While we've got a number of new builds on the drawing board, we also have a couple of high-performance retrofits. Given the cost of living (and building) crisis, we feel this is a really important avenue to help homeowners improve the comfort and liveability of their houses. Thankfully we tend to attract clients who prioritise 'better' rather than demanding 'more and more'. We like to create pretty snazzy interior fitouts, but ensuring they are also healthy indoor environments is paramount to all of our projects. Every existing building has its own unique set of challenges, but that is a part of what makes the job exciting to us. Retrofitting for performance is not sexy architecture, but we get a big kick out of it.

#### **What would you change or revolutionise in the industry?**

This is by no means revolutionary but could have a big impact: the implementation of an 'as built' verification for performance-related items in a build project. This is critical to ensuring we build what we design, and also important for upskilling the whole industry. It's not rocket science, and I believe this sort of verification would be very easy to put into practice.

#### **Where to next with sustainable architecture?**

I think the Living Building Challenge (LBC) is a great holistic approach to design. Beyond thermal comfort and energy efficiency, the LBC raises the question 'Is it possible to build and have a positive environmental impact?' It includes benchmarks for sustainability in areas such as energy efficiency, water use, consideration of place (ecology, urban agriculture, habitat exchange), equity and access, materials, and beauty.



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