

# Sanctuary

Off-grid island style; mudbrick barn reno; gas vs electric appliances; Tassie trail architecture; hip pocket energy retrofits; hemp takes strides; Nightingale's apartment gamechanger + more

## TINY TRIUMPH!

*A super-smart 30m<sup>2</sup> home for two*



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## TEENY TINY SPECIAL

5 tiny-footprint homes where you can live well with less

A modern, dark wood-clad house with a large window, set against a backdrop of trees and a valley. The house is built on a hillside, and the background shows a valley with a town and mountains under a cloudy sky. The house has a dark, weathered wood exterior and a large, multi-paned window. The text 'Passion project' is overlaid on the image in a large, white, sans-serif font.

# Passion project

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A deceptively simple, low-energy home gives two Tassie tree-changers the breathing space they wanted to pursue their passions.

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Incredible views across the Derwent River more than compensate for the challenges of building on a steep site and around remnant vegetation. Access is pedestrian-only, and to make it accessible for all abilities, the owners have installed stairs and a ramp. Images this page Chris Crerar.

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**PHOTOGRAPHY** Nina Hamilton

#### **AT DIFFERENT TIMES DURING OUR**

lives we seek different things from our homes. In our twenties we may just want a city crash-pad, while in our thirties and forties proximity to schools or connection with community might be the priorities. At some point, downsizing and a tree- or sea-change could be on the agenda as the kids take off.

But what about planning a home that will still serve you well decades from now? A home that meets your current needs and also helps maintain your lifestyle and independence well into your latter years? That's exactly what former Sydneysiders Jenny Kyng and Doug Cooper were planning for when in 2011 they purchased a steep but spectacular north-east facing suburban block in Hobart's Tolmans Hill.

After years in the congested inner west suburb of Marrickville, the couple who both work in mental health, wanted to embark on their own "tree-change" and build a well-designed, architecturally appealing and efficient home that would also embody principles of universal design.

As a self-confessed architecture aficionado, Doug definitely wanted their new home to have aesthetic appeal, but equally important was the capacity of the house to meet their needs later in life in terms of ease of use and access, energy efficiency and low ongoing maintenance requirements.

"It wasn't simply about having a beautiful looking house – as in the facade and materials – but ultimately it's about the floor-plan, functionality and its broad sustainability as we want to stay in the house for as long as we can," Doug says.

And it's here that Uta and David Green from Hobart's Green Design enter the picture. Jenny and Doug engaged the small practice specialising in environmentally sustainable and ethical residential architecture, while they were still living in Sydney.

"Their work spoke for itself – beautiful, elegant and sustainable but not ostentatious," says Jenny.

Uta and David were challenged with creating the design for a modest-sized environmentally efficient home, to suit the clients' current and future needs, on a difficult, steep site.

"For me, engaging an architect is not just about aesthetics, but more about communication," Doug says. "We gave them a very strong brief, which they interpreted and came back with a great design."

A fundamental part of the brief was that the new house needed to incorporate spaces for Jenny and Doug to pursue their own passions. Jenny is a painter of people, while Doug also works as a freelance editor and collects books.

Uta says that not only was it a difficult slope to build on but this also made it



Openable double-glazed windows on either side of the living area allow for cross breezes; the fixed picture windows are there for the views!



Artists love light from the south, and Jenny's painting studio is designed with this in mind. The rammed earth floor is finished with linseed oil which she also uses as a medium in her painting.



Concrete benches contrast beautifully with the plywood lining. The house is not connected to mains gas, but two gas bottles supply the stove.

more difficult to apply universal design principles.

"The steep slope, tight building envelope, easements and location of trees on the land made costs per square metre more than we were used to," says Uta, "but I think we've achieved it quite well."

What has been achieved is a smallish visually engaging home that sits low from the roadside, but high on steel poles to lift it away from the slope.

Entry to the house from the street is via a set of steel and jarrah stairs and an adjacent ramp that provides a striking, continuous link from the street to the house and feels more like an integral design

feature than an access solution.

Also striking is that the house wraps around a couple of medium-sized eucalypts that now nestle between the living area and Jenny's art studio at the south-eastern end of the house.

Doug makes an obvious joke about the trees. "You can't do a tree-change and cut the trees down," he laughs.

"Unfortunately, it seems to be common practice to remove trees in Hobart, to access more of the water view," says Uta.

"We believe that these trees are very important as they define the space, and while we wanted to retain them, it did mean that the house needed to be wrapped

around them."

Inside, subtle measures, including wider doorways and shower entrances, a bedroom (currently used as a study) and bathroom on the entrance level and a staircase wide enough to accommodate a possible stair lift are just some of the almost invisible universal design features, which will allow Jenny and Doug to live here well beyond retirement.

What is noticeable however, is the calm palette of materials, the quality of the finishes and the sweeping views through the double-glazed windows across the bush, down to the Derwent River and city.

"The combined bush, city, river and

mountain views make us feel connected to everything we love about Tasmania,” says Doug.

Taking advantage of the passive solar design, most of the floors are basalt tiles to increase the thermal mass, but they are laid on cement sheeting rather than a concrete slab to avoid the embodied energy contained in a slab and to keep costs down, as suspending a slab at that height was going to be a costly exercise.

While Jenny and Doug both have spaces to pursue their interests, Jenny’s art studio really is an inspiring and innovative space. After many years in a pokey art space in Sydney, Jenny now has room to move and enjoys beautiful filtered light thanks to a large south-facing window utilising polycarbonate rather than glass and echoing the kind of steady light she once

encountered in Parisian art studios. The studio floor is 60mm and made from rammed earth – it is tactile and always warm. The rammed earth floor is a first for Green Design and Jenny couldn’t be happier.

“I love the feel of real earth under my feet, and the colour and texture of it, visually. As I use linseed oil in my painting as a medium, and it constitutes the binder for all good oil paints themselves, it feels only fitting that the floor is sealed with this wonderful golden oil,” she says.

The sense of space that Jenny now has in her studio is also now part of the couple’s daily lives.

“After 13 years in Marrickville, barely able to see the sky, surrounded by factories and crammed up against our neighbours, the amazing views provide a great feeling

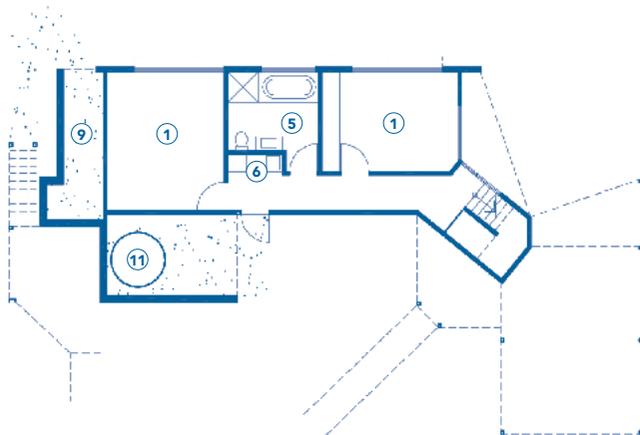
of freedom and breathing space. What I like about Hobart is that the view is democratised to a large extent. Practically everyone has a view in this town, or is within walking distance of one, unlike Sydney,” Jenny says.

The passive solar home is also so energy efficient that the couple’s first quarterly power bill was under \$50.

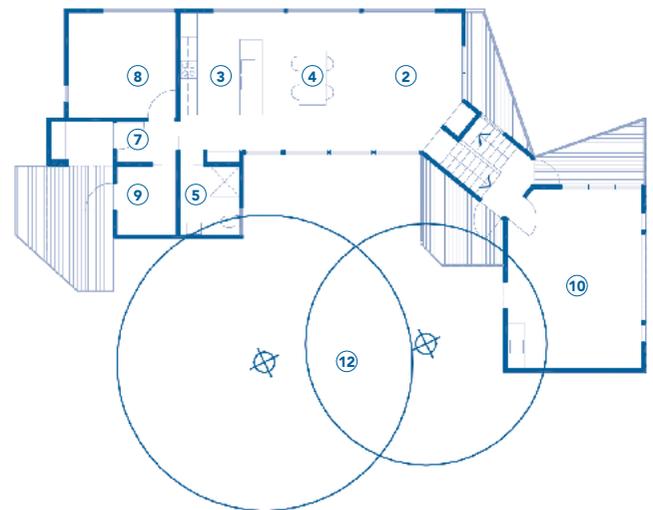
“Doug was so amazed that he rang me in disbelief as the power costs in their Hobart rental were around \$1000 a quarter,” says Uta.

In a suburb dominated by large, showy homes, maybe the approach taken by Jenny and Doug in conjunction with Green Design to plan a home for their future will allow them to go on living in their eyrie above Hobart long after many others have moved down to flatter ground. **S**

## LOWER FLOOR PLAN



## UPPER FLOOR PLAN



### LEGEND

- |            |                  |
|------------|------------------|
| ① Bedroom  | ⑦ Entry          |
| ② Living   | ⑧ Study          |
| ③ Kitchen  | ⑨ Store          |
| ④ Dining   | ⑩ Studio         |
| ⑤ Bathroom | ⑪ Water tank     |
| ⑥ Laundry  | ⑫ Existing trees |

# Hill House

## —Specifications

### Credits

#### DESIGNER

Green Design Architects

#### BUILDER

Skookom

#### PROJECT TYPE

New build

#### PROJECT LOCATION

Hobart, climate zone 7

#### SIZE

House 159 m<sup>2</sup>

Land 989 m<sup>2</sup>

#### BUILDING STAR RATING

7.5 stars

### Sustainable Features

#### HOT WATER

– Sanden heat pump, 315L tank.

#### RENEWABLE ENERGY

– 3kW grid-connect PV system: 12 panels; 6 micro-inverters.

#### WATER SAVING

– 5000L food-grade PVC-lined steel water tank used for toilet flushing, laundry, garden irrigation & bushfire fighting

– Low-flow shower heads and tapware from Methven, Dorf Viridian, Abey and Parisi

– Drip irrigation system to water-wise/native garden.

#### PASSIVE DESIGN / HEATING & COOLING

– Cross ventilation and shading devices to northern windows: a combination of awning, sliding and tilt-and-turn windows used to promote ventilation when it's needed. Honeycomb "top-down, bottom-up" blackout blinds provide shading in the kitchen, living and dining areas and were chosen for their adjustability

– Circulation spaces and rooms are zoned using sliding and hinged doors to retain heating,

cooling and privacy

– Ventilated roof cavity and permeable walls, floor and ceiling to avoid condensation

– All rooms are north facing, with generous glazing to north

– Thermal mass floors.

#### ACTIVE HEATING & COOLING

– Noirot Spot Plus electric panel heaters with timers, used in studio, bedrooms and living/dining; under-tile heating for bathroom basalt floors

– Big Ass Haiku fan in the studio for convection, uses efficient 0.019HP single-phase motor.

#### BUILDING MATERIALS

– Laminated veneer lumber (LVL) studs, beams and joists

– Cladding: Terracade tiles; Shou sugi-ban charred timber shiplapped cladding (Macrocarpa aka cypress; note: Shou sugi-ban is typically mistranslated as "burnt cedar" but the accurate translation is "burnt cypress"; shiplapped jarrah at front entrance

– Insulation: bulk polyester R3.0 in walls; R6.0 batts + R1.3 blanket in roof space; R5.0 batts on exposed

underfloor of house and studio

– Colorbond custom orb roofing

– Hoop pine plywood ceiling in kitchen, living and dining area

– Rammed earth floor in studio by Unique Earth

– Concrete benches in the kitchen with hoop pine plywood joinery

– Permeable membrane to walls and roof.

#### WINDOWS & GLAZING

– Double-glazed uPVC, argon-filled windows, supplied by Titane.

#### PAINTS, FINISHES & FLOOR COVERINGS

– Interior: zero-VOC Dulux paints

– Jarrah cladding stained with Cutek

– Basalt tiles on compressed cement sheet.

#### OTHER ESD FEATURES

– All trees on the site were retained, the house was designed around them

– Landscaping: local native plants

– Walking distance to city centre

– Designed with ageing in place and future adaptability in mind, including wider doorways, no thresholds, large bathroom, bedroom, and living/kitchen on entrance floor level, entrance ramps, stairs wide enough to be fitted with stair lift, shower stalls are 1m<sup>2</sup>

– North-facing roof design optimal for solar PV placement

– House not connected to gas, but 2 x 9kg gas bottles supply the cooktop.



The *Shou sugi-ban* burnt cypress shiplap cladding is made using local *Macrocarpa*, a species typically used as a windbreak on Tasmanian farms. The finish is low maintenance and strikingly beautiful.

