

Coastal gem

Artists Tamzen and Sam Brewster imagined a low-energy creative sanctuary in the idyllic surrounds of Tasmania's famed Freycinet National Park. The understated result appears almost of the landscape itself, even its name borrowed from the ground below.



The high-performing Aplite House borrows from its captivating surrounds, without detracting from it. Owners Sam and Tamzen did extensive research to ensure the home, which serves as a creative sanctuary, family retreat and guest house, would have minimal impact on the environment, both in terms of materials used and operational energy use.





1 Inside, furnishings were carefully chosen by the creative couple to support local artists. The ceramic light fittings were handmade by Sharan Elran. The insulated concrete slab floor is 160 millimetres-thick on the northern side to minimise the lag or loss of heat overnight.

WORDS Gabi Mocatta

PHOTOGRAPHY Tamzen Brewster

IF EVERY NEW HOME RESPONDED TO its site as well as Tamzen and Sam Brewster's, the built environment would be much more attractive and far less damaging. The off-grid guesthouse, set remotely on some 200 acres of bushland at Friendly Beaches on Tasmania's east coast, while striking, has the modesty to blend in quietly to its pristine surrounds thanks to the owner-builders' strong artistic sense and commitment to low-impact design.

Aplite House – named after a quartz-based rock found on the Freycinet Peninsula where the house is situated – has been built both as a family retreat and a guesthouse. The couple are also planning an annual artist-in-residence program for national and international artists with a

focus on the wild environment.

"For us as a family, the house needed to have a sense of homely comfort, and a good passive solar design. For visitors, we wanted it to be an experience," says Sam. "We wanted people to be able to retreat, unwind, to enjoy the remoteness of the natural surroundings, and also to be able to come from anywhere in the world and feel comfortable in this setting." They also wanted the house to be educational. "In terms of living off-grid, this is an example of what great things can be done," says Sam.

The couple had two architects submit briefs for the design. There was no set house site and the owners and prospective architects walked the property extensively to find the right location. Architect Stephen



1 The kitchen benches and table were handcrafted by Sam from a single Tasmanian myrtle, milled and dried in north-west Tasmania close to where it was harvested from a friend's property (it was dying and needed to be removed). The timber was quarter-sawn to minimise radial movement from the timber grain.

Geason's design for a site with western views over the Moulting Lagoon wetlands won them over. "One of the specific challenges of the site was to take in the water views to the west, and still allow solar gain from the north," says Sam.

Stephen set about designing two near-parallel, adjoined pavilions that would create an assorted mix of experiences and connections to the landscape. "The idea was that the house should be a 'corridor' to the outside," as he puts it, "but also offer internal retreat, security and shelter." The architect designed a kitchen, dining and living pavilion with extensive glazing on three sides, with sliding doors onto multiple decks that experience different sun and wind conditions. Three steps

lead up to a cozy den, which doubles as the thoroughfare to the sleeping pavilion. Sunlight floods the living area at different angles throughout the day, warming the burnished concrete slab and keeping the interior at a comfortable 17 degrees in winter, while wide openings allow good cross ventilation on summer days.

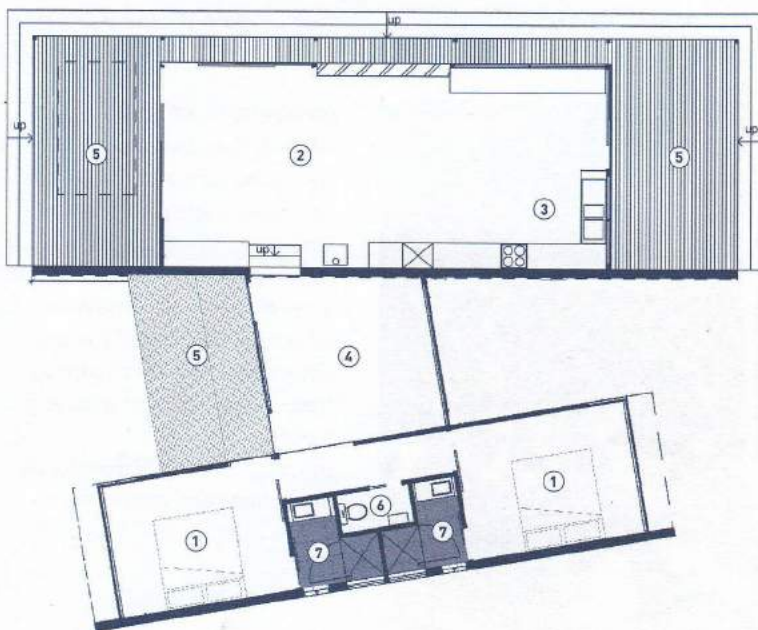
To achieve such standards of comfort and energy efficiency, Sam, who has a masters degree in environmental design, was adamant about insulation. "I went over the top," he says. Double-glazed throughout, the home has high-density polystyrene under the entire slab, R2.7 glass wool insulation in the exterior walls – with double this on the southern wall – and R6 in the ceiling. Although hydronic piping for heating has been incorporated into the slab, the house maintains temperature so well that these have never been used, and it is rarely necessary to light the wood-burning stove, even on the coldest winter nights. Twelve 200 watt solar panels and 12 900-amp hour batteries provide power, and the house collects all its own rainwater, meaning that the customary appliances of a

conventionally powered and plumbed home (microwave, coffee machine, dishwasher, flat screen TV, hairdryer, and ample showers) need not be spared.

Sam built the house himself, mostly single-handed, and his perfectionism is evident in every aspect: the exactly aligned nails on the exterior timber and decks, the thoughtfully hidden power supply set-up, the seamless skirting boards and recessed window frames inside. Sam also crafted most of the furniture himself from the deep red timber of a single, ethically sourced myrtle. And Sam and Tamzen's keen eye – they are both professional artists – shows in the understated decoration and deftly selected artwork.

"I think Sam has done an exquisite job of interpreting the design intent," says the house's architect. "Aplite House really does embrace the landscape." While it embraces the landscape it doesn't take from it; this house is a fine example of how off-grid living can be effortlessly comfortable, beautiful to look at and environmentally sound. **S**

FLOOR PLAN



LEGEND

- ① Bedrooms
- ② Living/Dining
- ③ Kitchen
- ④ Lounge
- ⑤ Deck
- ⑥ Bathroom
- ⑦ Robe

Aplite house

—Specifications

Credits

DESIGN

Cykle Architecture,
Stephen Geason

BUILDER

Owner/builder

PROJECT TYPE

New build

PROJECT LOCATION

Freycinet, Tasmania

COST

\$450,000 to \$500,000
(incl. professional fees)

SIZE

House 107 sqm,
covered deck 38 sqm,
land 80ha

Sustainable Features

HOT WATER

– Bosch Highflow 21e gas hot water system.

RENEWABLE ENERGY

– 12 x 200W solar panels with 3kW Outback inverter charger, 12 Sonnenschein batteries, (2 volt, 900 amp hour), 8kVA Honda backup generator by MPower, designed and installed by Leigh Knowles of LK Services.

WATER SAVING

– Rainwater collected into two, 23,000L tanks.

PASSIVE DESIGN

– Living areas oriented to the north for passive solar gain, using the concrete slab as thermal mass
– Eaves on the north of the house allow the low winter sun to warm the concrete slab and shade against the higher summer sun
– Awning windows for cross ventilation and cooling breezes east to west in winter and north to south in summer.

ACTIVE HEATING & COOLING

– Rehau hydronic pipe heating with two layers of reinforcing mesh in the floor slabs, has not been connected as yet as hasn't been needed
– Nectre Mk2 wood heater in the lounge area for winter atmosphere and additional warmth if required. The 80-ha property provides ample firewood from cleaning up around the building zone.

BUILDING MATERIALS

– Insulation: RMax high density foam, 50mm, to concrete slabs and edges; Knauff Ecobatt to walls, R5.4 to southern wall, R2.7 to others, R6 and R12 in ceiling
– The house cladding and decking is locally milled and sourced Tasmanian eucalyptus from Kelly's Timber in Dunalley
– Exposed concrete slab floor for thermal mass and also texture. The northern slab is 160mm thick to minimise the lag or loss of heat overnight

– Furniture handmade by Sam from a single Tasmanian myrtle, which was dying and had to be removed from a friend's property, quarter-sawn to minimise radial movement from the timber grain.

WINDOWS & GLAZING

– Double-glazed windows throughout by Clark Windows with thermally broken, aluminium frames
– Internal blinds to bedrooms by Beautiful Blinds, Hobart.

LIGHTING

– Most of the light fittings are handmade, some collected by the owners while travelling, others by a ceramic artist Sharan Elran.
– LED lighting throughout.

PAINTS, FINISHES & FLOOR COVERINGS

– Concrete slab burnished and oiled with low-VOC oil from Livos
– Timber furniture has been finished with Whittle Wax hard wax oil.

OTHER ESD FEATURES

– All materials used were measured accurately to minimise waste from leftover materials. All offcuts from materials were kept in piles according to length and reused where possible. Small amount of excess concrete was framed in timber rectangles for steps and pavers
– Minimal clearing of trees for the access road and house site.



A key challenge for architect Stephen Geason was to find a way to take in the views from the west over the lagoon, while maximising solar gain and minimising unwanted heat loss. He achieved this through the creation of two near-parallel, adjoined pavilions, with the bedroom section set higher than the living to allow the sun's warmth into both, while creating a non-linear form that borrows from the distant landscape.

