

MODERN GREEN HOMES Sanctuary

INSIDE ISSUE 23 115+ green products & design tips; Design Workshop – design for cold climates; Renos & retrofits – kitchens & bathrooms profiled; Using recycled materials

RENOS & RETROFITS

KITCHENS, BATHROOMS
& SMALL PROJECTS

Eco cubbies
Good design on a budget
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WIN
A solar power system
from Delta Energy

*Offer open to Australian residents only.

NSW & QLD
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Passive solar design principles are at the heart of the planning and design of this renovation. The house has been orientated for maximum solar gain. The pergola and screens provide protection in summer and let winter sun in. Cross ventilation has also been carefully considered.

Small & striking

WORDS Fiona Negrin
PHOTOGRAPHY Peter Bennetts

FLEXIBILITY AND ADAPTABILITY ARE KEY TO MAKE Architecture's clever extension of an inner-city house on a tight block. By designing rooms that support multiple uses, the clients (a small family) gained the extra space they needed without building bigger.

An outdoor deck doubles as an extension to the dining room when entertaining guests, simply by removing retractable doors that divides the space. In summer the family pivot the TV in the lounge room to face the deck, and sit outside to watch the cricket. A desk in the kitchen allows the kids to complete homework while dinner is prepared, and built-in daybeds, seats and furniture save space and provide genial places to relax and storage space.

"By designing smaller spaces that work smarter,

the homeowners saved on building costs and reduced their carbon footprint," explains architect Melissa Bright.

Judicious placement of screens, movable walls and retractable doors allow the family to define spaces according to their requirements. The house is oriented to receive sun in winter and exclude it in summer, but like all truly passive houses this house requires active management. The family close the external screens in summer to shelter the house on a hot day, but leave the screens open in winter to let in the low sun. High-level louvred windows can be opened on summer nights, helping to vent warm air from the house and keep the ambient temperature comfortable. Reverse-direction fans help circulate cool air in summer and warm air in winter. ☺



A series of reduction strategies were incorporated into the design of this alteration to reduce its size and environmental impact. One was to maximise efficiency with the use of joinery and built in furniture, including day beds, seats and desks.

House reduction

—Specifications

Credits

DESIGN

MAKE Architecture

BUILDER

4AD Construction

PROJECT TYPE

Alteration

PROJECT LOCATION

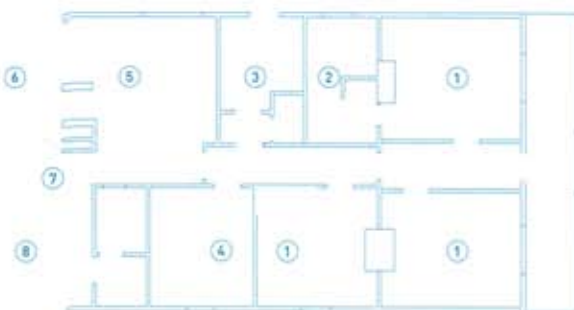
Collingwood, VIC

Features

- Passive solar design
- Multifunctional spaces, retractable and/or moving walls and screens provide flexible and adaptable spaces
- Water collected, stored in tanks and reused in the laundry and WC
- High-level louvres vent warm air from the house in summer
- Cinni ceiling fans and evaporative cooling
- Pergola made using ModWood, a recycled wood and plastic composite product
- FSC certified timber used throughout, including messmate flooring and painted Design Pine for the retractable screen. Recycled hardwood used for benches in the bathrooms.
- LED lighting throughout
- The existing house's insulation was upgraded throughout.

"We see the move towards smaller, more flexible houses as an essential response to conserve resources and reduce carbon footprints," says architect **Melissa Bright**.

FLOOR PLAN



LEGEND

- ① Bedroom
- ② Bathroom
- ③ Bathroom/laundry
- ④ Media room
- ⑤ Living
- ⑥ Outdoor living
- ⑦ Dining
- ⑧ Kitchen