OBJET D'ANOUR

Architect Colin Brown's green renovation was planned down to the last detail. Open for Sustainable House Day, it's a model for inner-city fit outs.

WORDS SIOBHAN O'BRIEN PHOTOGRAPHY TIM WHEELER







FASHION IS A FICKLE THING. THE OBJET D'AMOUR IS HOT,

then it's not – but wait a decade or so and suddenly it's back in vogue. And that applies to everything. Musicians, holiday destinations, even dog breeds have their fifteen minutes of fame.

Suburbs are not impervious to such a phenomenon. Take Sydney's Dulwich Hill. It used to be the neglected 'burb in this city's inner west. It wasn't as luxurious as Leichardt or as heritage as Haberfield. Now, it's almost impossible to buy in. Colin Brown, architect and director of Arena Design Architects, was one of the lucky ones.

Says Colin, "We looked at the block in 2007. It was a typical Federation style property with lots of character and many original features such as decorative ceilings that remained intact. It had good bones for a contemporary overlay. It ticked all the boxes for us: four bedrooms, a garden and close proximity to public transport and local schools. We jumped at it!"

Colin's house will be open to the public for viewing on Sustainable House Day, Sunday September 12. Being an architect, Colin is excited by the opportunity to raise awareness of green design through the event, which gives people the opportunity to look inside homes that have been designed, built or fitted out with the environment in mind. "It's a great opportunity for members of the public to talk to home owners and architects and exchange ideas about how they can make their own homes greener."

One of the best features of this double-fronted property, Colin explains, is its northerly aspect, which "allows for more flexible, adaptable layouts". To make the most of its orientation, old structures were removed during the renovation and a selection of internal walls reconfigured to allow for the infiltration of natural light.

Many of the features of the existing house, such as decorative ceilings, cornices and doors, were retained; while most of the cupboards in the kitchen were recycled. Similarly, a door with a lead-light feature located in the western facade was retained with solar control glass added above it for sun mitigation.

The rooms were also given a reshuffle. The fourth bedroom morphed into a multi-function space for study/music/guest accommodation. It now features an internal sliding door and is Colin's favourite room: "Our lifestyle is busy and chaotic, as we both work and juggle the kids. Weekends revolve around the garden, with friends and family around to enjoy the terrace and trampoline. We're all into music, so this multifunction space is well used. It has an interesting spatial quality, with the ability to be part of the main spaces or secluded as required. It's an interesting and successful mix of old and new."

Another space that gets a lot of attention is the terrace and adjacent BBQ area. This zone is designed and oriented to catch winter sun and create summer shade. A feature is a sizeable umbrella, which can be relocated and adjusted to suit the seasons. In-ground sockets located in different positions in the garden mean that the umbrella can be shifted on the whim of the weather.



Colin installed recycled rimu flooring to match existing timber. The skylight to the living room has integral sunshading blinds and electronic control. Furniture in the house is a practical mix of long-held classic 1950s inspired Scandinavian pieces such as the Swan Chair and Fritz Hansen 3107 dining chairs, teamed with IKEA sofas and accessories. 









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A favourite feature is the ability to use the fourth bedroom, with its sliding door, as a multi-function room for guest accommodation/study/ music practice. "We're all into music, so this multi-function space is well used. It has an interesting spatial quality, with the ability to be part of the main spaces or secluded as required."



GROUND FLOOR PLAN Front Garder Verandah Bedroom ' 03 04 Bedroom 2 05 Bedroom 3 06 Bathroom 07 Study 08 Living Room 09 Laundry 10 Bathroom 11 **Dining Room** 12 Kitchen 13 Cabana 14 Patio 15 Backvard

As Colin explains, "I conducted computergenerated solar studies to ascertain the most effective placement for these sockets. It's little things like this that really pay off in the long term and make the difference between a space really working or not."

Passive heating and cooling techniques abound through the house: the northern facade opens up with sliding glass doors; flyscreen doors, windows and glass louvres were installed throughout for effective (and attractive) cross ventilation; while a centrally located opening skylight allows hot air to escape when required.

Active heating and cooling in the house is kept to a minimum. Ceiling fans and a gas-fired hydronic heating system effectively heat and cool the house, and these are greatly assisted by further passive elements such as suspended timber floors, laminated glazing, and insulated ceilings and walls. Existing windows were weather-stripped with draft strips.

The building materials used for the project were all selected for their environmental qualities. The outdoor cabana features Australian spotted gum hardwood, while plantation pine plywood was used for its cladding. In close proximity, recycled bricks were used in the construction of a stormwater channel. Inside, Colin employed sustainable birch plywood joinery and recycled rimu flooring to match the existing timber.

Sustainable timber online

If you're wondering which species are sourced sustainably, which are so-so and which are "on the nose", Greenpeace has an easy-to-follow guide to sustainable timber species at www. goodwoodguide.org.au.

For nitty-gritty specifying, environmental architects and designers favour www. ecospecifier.org. It's a one-stop-shop for a vast range of environmentally sound building products, including timber products.

Many (the list is not exhaustive) of Australia's sustainable timber product suppliers can be found in Forestry Stewardship Council's small but growing guide to FSCcertified Australian timber products at www. fscaustralia.org. Look under "Green Building Sector".

Paints, finishes and floor coverings include a plethora of non-toxic sealants, natural oil finishes and floor coverings. Colin explains, "We were living in house with young children through the renovation, so low-VOC paints and finishes were a must".

And Colin isn't finished yet. "This house, like many others, is a real work in progress. I've made provision for hooking up a rainwater tank, additional sunshade devices and the regeneration of the garden is ongoing."

An architect's home has to be many things, a display home, an advertisement and a space for his family to grow. It's a difficult balance but Colin thinks he's got it right. "As an architect you are always keen to have something really special for your own family and produce something that also has architectural merit, is built well and will be a calling card. I drove my wife mad with options and updates but we are in no doubt that we now have a fabulous home that works well for us as a family."

SUSTAINABLE HOUSE DAY

Sustainable House Day will be held on Sunday 12 September 2010. Some 250 homes around Australia will be open on the day. Go to **www.sustainablehouseday.com** for more information.



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The terrace is carefully designed and orientated to catch winter sun and summer shade via a relocatable adjustable umbrella; various in-ground locations determined by computer modelling of shadows avoid the need for a clumsy counterweight base.



"We were living in house with young children through the renovation, so low-VOC paints and finishes were a must."

> The cabana, which abutts the rear wall of the house, is a favourite retreat for family members.

Dulwich Hill Residence

Designer

Colin Brown, Arena Design Architects

Website www.arenadesignarchitects.com.au

Builder Hamwood Constructions

Project type Renovation

Project location Dulwich Hill, Sydney, NSW

Cost

\$240,000

Size Land 324 sqm; house 130 sqm

SUSTAINABLE FEATURES

Water Saving

Grohe low-flow showerheads and kitchen tap aerator. www.grohe.com.au

Passive heating & cooling

- Northern facade opened up with sliding glass doors
- Good cross ventilation via sliding flyscreened doors and louvres, with through ventilation from doors and windows at front and side of house

Active heating & cooling

- Gas-fired hydronic heating system using Ferroli boiler and Brugman radiators with zonal control, replacing inefficient electric oil-filled heaters. Where practical radiators are situated against internal masonry walls to use thermal mass. Installed by T&D Engineering. www.tdeng.com.au
- Hunter Pacific ceiling fans retrofitted with remote control capability via existing light switches.

Windows & glazing

- Western red cedar framed sliding doors and windows from Windoor (www.windoor. com.au), with Solect Grey solar control laminated glass from G James Glass.
- www.gjames.com.au
- Existing windows fully weather-stripped with Raven draft strips. www.raven.com.au
- Velux skylight with integral sunshading blinds and electronic control. www.velux.com.au

Insulation

R3.0 Tontine polyester fibre insulation to ceilings and new rear facade walls

Building materials

- Spotted gum Australian hardwood from Nash Timber (www.nashtimbers.com.au) to cabana addition, with Carter Holt Harvey Shadowclad EcoPly for cladding
- www.chhwoodproducts.com.au
- Recycled rimu flooring to match existing timber from Ironwood P/L
 www.ironwood.com.au
- Birch plywood joinery from sustainably managed sources, supplied by DMK Forest Products (www.dmkforestproducts .com.au), fabricated by Rage Design

Paints, finishes & floor coverings

- Oikos low-VOC paint in selected colours for feature walls in bedrooms
- Dulux Enviro2 low-VOC paint for general walls www.dulux.com.au
- Meta Creme low-VOC non-toxic sealants to internal floor tiling in new bathroom by Dry Treat Australia www.drytreat.com
- Natural oil finishes from Natural Paint Place www.energyandwatersolutions.com.au
- Livos countertop sealer (linseed oil based) with Gleivo Beeswax top coats
 www.livos.com.au
- Bio Natural Timber Oil (linseed oil based) on cabana hardwood frame www.bionatural.com.au
- Bona Traffic low VOC, non-toxic satin finish to timber floors from Ezifloor www.ezifloor.com.au

Lighting

- Sombra 20W infra-red coating halogen dichroic lamps in all recessed ceiling fittings. These bulbs use a special coating that helps produce the same amount of light with approximately 30% less energy than a standard halogen downlight. Colin: "Upon expiring, the lamps will be replaced with new technology Philips MR16 4W LED lamps, equivalent to 35W dichroics".
- Proprietary switching system to enable lights to be independently controlled in zones as appropriate

SUSTAINABLE PRODUCTS

Breezway glass louvres

Breezway Altair louvre windows have the ventilation benefits but significantly less draught than traditional louvres. For more information see Products, p91. www.breezway.com.au

