

# At home with the environment

An Eagle Bay residence has given designers a strong hint of future housing trends, reports

**Frank Platell**

Winner of the ecologically sustainable development category in the 2005 RAIA Awards is a significant pointer to our future in housing.

The entry from architect Garry Baverstock not only scores on sustainability but in its aesthetic appeal, blending harmoniously into the beachside at Eagle Bay.

Judges appreciated its integration into a natural site, noting the protection from existing and additional native trees and shrubs, and also the maintenance of the primary sand dunes in front. A softly curved roof reflected the mood of nature.

They assessed its significant passive-solar benefits for year-round living comfort, noting the use of the sun and breezes particular to that part of Geographe Bay.

Clerestory glazing had ensured that the whole house benefited, while also providing a high level of natural light to all areas, reducing the dependence on artificial illumination by day.

Its reverse brick veneer construction was imaginative in creating an internal masonry mass to act as a thermal bank.

It stores the heat of winter sunlight now penetrating well indoors, to radiate it back indoors at night.

Cedar weatherboards provided a lightweight skin to the exterior and are insulated to increase the overall thermal resistance to weather extremes. The durable timber also is aesthetically pleasing in the natural environment.

With the frame construction, the roof is quickly in place and the brickwork proceeds uninterrupted by rain. Also only half the number of bricks are used, reducing embodied energy in the total structure.

The openness of the plan, apart from providing for a relaxed lifestyle, also has sight lines to the beach and to the landscaped courts around the home.

This gives the feeling of being embraced by the outdoors while enjoying the comforts indoors.

The use of bright, reflective colours indoors ensures that the natural light is distributed evenly all round. The light, bright and even ambience throughout adds to the feeling of wellbeing.

Of course, it has a wide solar veranda to the north and wrapping round the east elevation.

Angled louvres allow for maximum sun penetration in winter and solid shade in summer and this alfresco area can get year-round use.

The use of limestone to angle exterior wall panels, also to curved walls in the entry, contributes to the architect's low embodied energy strategy for an environmentally sensitive area.

The investment in water heating and lighting was dictated by the lifestyle and was appropriate to the "use" factor. But the collection of rainwater run-off from the roof was important.

This goes into an 80,000-litre concrete tank that is half recessed into a hill and reads as part of the landscape for minimum visual impact. A low-energy pump provides water to the home at mains pressure.

There is an environmental septic system that allows for grey water to be discharged into the landscaped surrounds.

Mulch from local woodchips has been spread over the sand to minimise garden requirements for water.

Garry sees the house as a further development of the Millennium concept for Perth that he designed for the year 2000. While the Eagle Bay winner is not open for inspection, he is prepared to discuss details by phoning 9286 3811.



The openness of the plan, apart from providing for a relaxed lifestyle, also has sight lines to the beach and to the landscaped courts around the home.