

architecture

Michael Bradley

Beyond double-brick

Much of our housing is old-fashioned and inefficient, but it can be improved.

STYLE has always been more important to Australian home builders than design and this phenomenon has resulted in us having 150 years of dwellings which need to be turned around, turned inside out, or – at least partially – torn down.

This is the belief of local architect Tone Wheeler, who will be a speaker at the Sustainable Housing Moving to Mainstream seminar being held in Sydney next week. While the concept of sustainable housing and energy efficiency is being increasingly promoted by developers and local councils, Wheeler's architectural practice is primarily focused on the improvement of existing homes.



"For a variety of reasons, we have, in the past, built very badly. Almost everything built in the last 150 years is an unsustainable building. They're poorly sited, poorly designed, poorly insulated, they don't relate to the climate, and they consume very large amounts of water and energy," he says.

"It wouldn't matter where you were in Australia, the street pattern has been made arbitrarily and you have buildings which face east, west, and south, as much as they do north. Simply the street layout mitigates against any climatic design."

The rise of fashion and the promotion of style over planning is also identified by Wheeler as being a significant problem. "Australian houses have always had the living areas at the front of the house and most project houses still do. But Australia's lifestyle is a backyard lifestyle, so unless you can get a huge forklift to turn the house 180 degrees, you're turning the house inside-out."

Wheeler says much of the alteration work done by his company transforms former living areas into

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bedrooms, while the backs of houses are torn down and new living areas built, to make use of space, light and breeze.

Figures provided by industry economists BIS Shrapnell show that since 1992 the amount of money Australians have spent on alterations and additions has been increasing faster than the amount spent on new homes. Last year the value of alterations and additions was \$22 billion, and the total for new constructions was \$28 billion.

Wheeler says this represents an opportunity to improve upon the poor designs of the past. "The rate at which we're replacing our houses, even though we're in the middle of a housing boom, is only about 2 per cent each year. This means that if we started making every single new house totally environ-

1 An inner-city Sydney home renovated by Tone Wheeler to adapt it to Australian conditions.

2 The Balgowlah house built by Caroline Pidcock, after a 1960s brick house was demolished.

3 and 4 Outdoor living space used in Pidcock's design.

5 The Balgowlah home takes advantage of the views.

6 The dining area of a new home in the Whitsundays designed by Wheeler.



mentally sustainable and a five-star house in terms of its energy ratings, it would take 35 years before half of our housing reached that standard."

Another architect who will address the seminar is Caroline Pidcock, who will discuss a house she was recently commissioned to design, after the owners knocked down a 1960s brick home.

"What I'm most happy about with the new house is that through working creatively with environmental aspects such as the path of the sun, the direction of the breezes, and the orientation of the block, we've created a house which the clients really love and which will be valued and lived in for a really long time," says Pidcock. "I think it will have a lifetime of a couple of hundred years and I think this is major part of what makes a house sustainable. It's got to last a long time."

Pidcock says her talk will emphasise how concepts of passive design, working with the natural breezes and

Photos: SIMART and Caroline Pidcock Architects



with the sunshine, should be seen as a more positive alternative than active design techniques such as air-conditioning and heating. While she acknowledges that many aspects of sustainable housing, such as photovoltaics to collect energy from the sun, water tanks, better use of insulation, or double-glazed windows, have high costs up-front, she believes their long term cost compares very favourably.

"If you look at the whole life cycle of a house, these aspects have different pay-back periods. At the moment in Australia our energy and water is cheap and a lot of those items don't have reasonable pay-back periods. But in true environmental terms, if our electricity and our water wasn't subsidised the way it is, these pay-back periods would be much more realistic."

Sustainable Housing: Moving to Mainstream. A national seminar tour on innovative solutions and practical ideas. Monday, February 18 at Sydney University, Eastern Avenue Auditorium: 6:30pm - 8:30pm. International Guest Speakers: Brenda and Robert Vale. Tickets: \$27.50. Ph 9241 2955