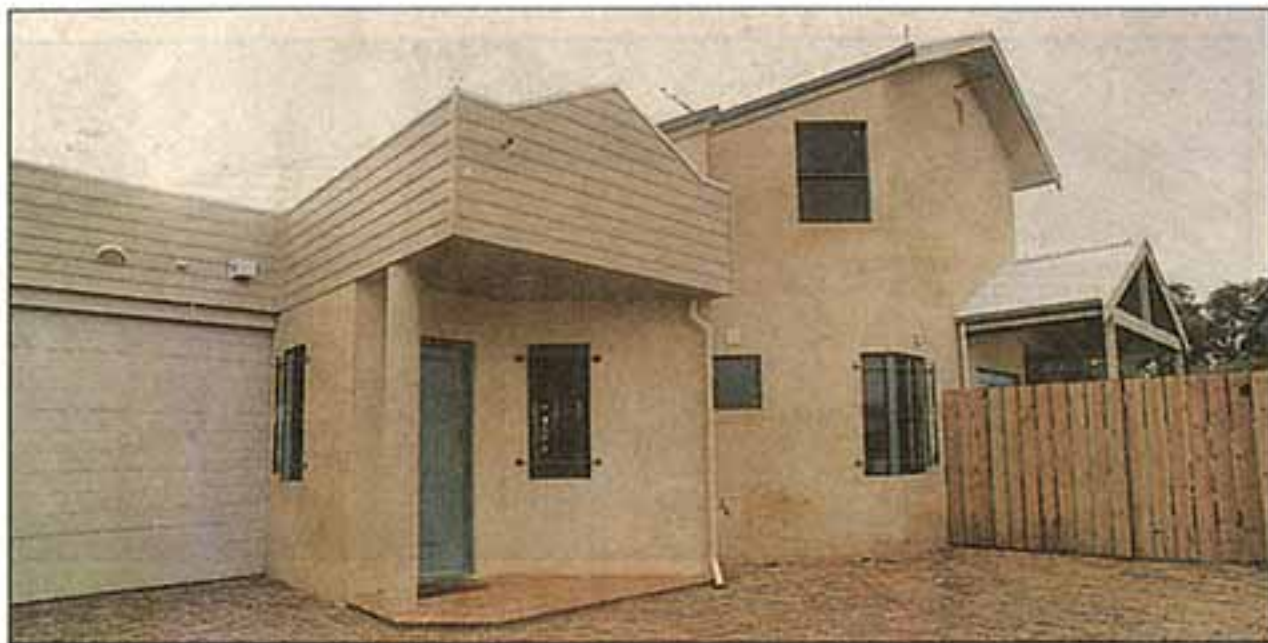
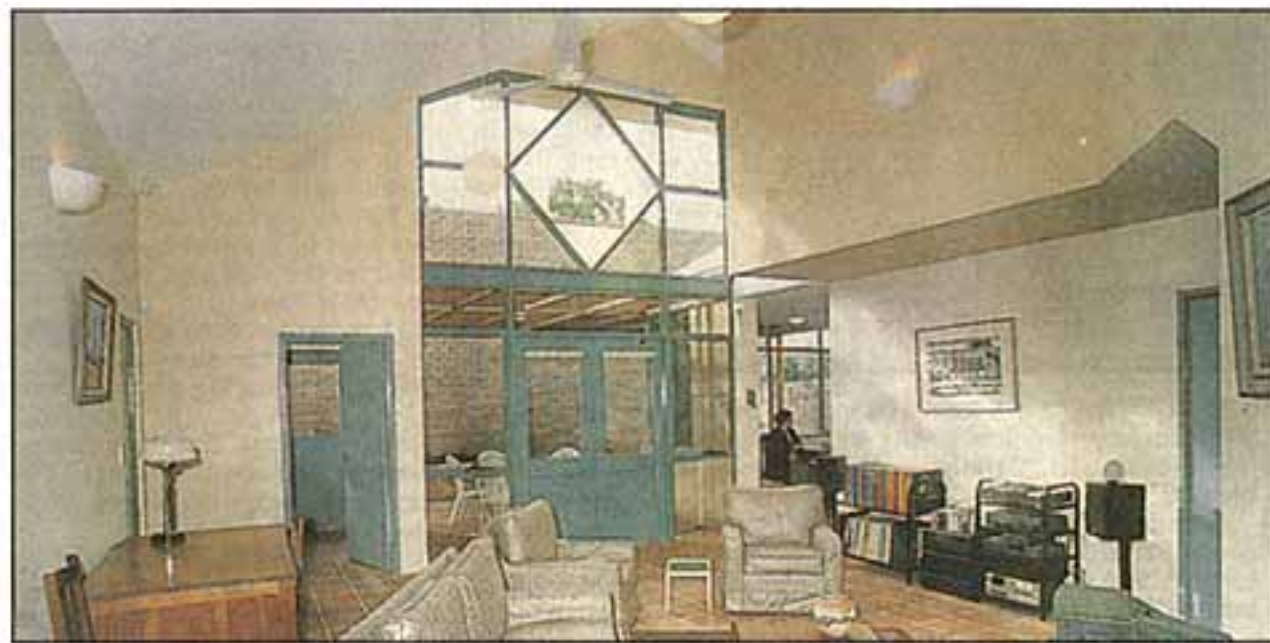


Solar design a singular success



◆ The roof overhang is part of the secret of the design's success.



◆ The main living area is angled and has a cantilevered upper floor.

On Display Fremantle

- ◆ **Price:** on application
- ◆ **Address:** South Street
- ◆ **Agent:** Baverstock Murphy and Assoc.
Phone 9474 2770
- ◆ **Open:** by appointment

TIGHT block, tight budget and adverse conditions such as a 6m-high wall to the north and sewerage easements — and it was not an easy task for a passive solar home at Fremantle.

But in a classic case of doing the best with what you have and working with enthusiastic clients, the result is quite stunning.

It all comes as a big surprise behind the modest facade, shaped to be in harmony with old Fremantle, but reflecting a lifestyle into the next millennium. It is such an expansive living area, where big volumes have been used to exploit upper-level windows needed for solar radiation in the winter months.

The main living space is enlivened with angles, a cantilevered upper floor and those clerestory windows, a room moulded to enable the tight spaces to work efficiently. Overall

this multi-purpose living area is about 8m by 7m and seems almost double that with the integrated private rear court.

The separate meals area for all occasions has been strategically placed to capture the early morning winter sun while excluding the summer sun. This exploits the 56-degree variation in the angle of the morning sun, between the shortest and longest days.

Because of the partial overshadowing from the 6m-high wall to the north, the glass area has been increased above the recommended formula to ensure adequate sun collection in the winter months. Even in July, our bleakest month, this input can be significant, with Perth then averaging five hours of sunshine daily.

Summer protection is assured with the roof overhang two storeys up and the louvred timber pergola at first floor level. This protection has been further enhanced by translucent reflective blinds.

Owners Ian and Olga Sheppard were tired of houses that were stiflingly hot in summer and freezing in winter. Ian, being an engineer, was convinced that there had to be something better.

Their research led them to the passive solar concept and their ideas firmed after hearing a presentation by Garry Baverstock, chairman of the environment committee, WA

chapter of the Royal Australian Institute of Architects. They gave him their brief for their battleaxe site, and he flinched a little on seeing the block, realising that it would be difficult to get an efficient design within budget. But the purse string was loosened to achieve maximum value for money.

The owners have now been in residence long enough to appreciate the winter warmth and positively glow when friends come in from the cold and ask if they have the heater on. It is so comfortably warm indoors.

They respond also to the open, airy ambience of the main space which relies on its sculptured shape for visual interest. There is no supplementary heating or air conditioning, which translates to significant energy savings over the life of the home.

"We only had vague ideas of what we wanted, leaving it to the architect to gain an insight into our requirements," said Olga. "It was indeed a thrill to see our vague thoughts translated into this exciting formula."

"It fulfils our dreams. Life here is still very much a discovery process as we appreciate the inherent benefits of the concept."

It is virtually a case of living on the whole of the 300sqm block with a residence of about 200sqm overall. The only garden areas are in planter boxes to the perimeter of front and rear private courts and there is no lawn.

It is self-contained for owners downstairs with all the living spaces, main bedroom suite and double garage. Upstairs are two more bedrooms for visitors.

The facade makes a play on gables and angles and there are strategically-placed small breeze of summer blowing virtually direct in off the sea.

Interest has been added here with the wrought-iron security grilles.

A portico with shiplap boarding to the gable identifies the main entry which is into a hall space complete with hat and umbrella stands.

The expansive living area extends off this, where the family spends most of its time indoors.

Adjoining is a cosy meals area for all occasions, and the table setting can be expanded to suit eight or 10 people.

The related kitchen has a generous work space with polished granite to all benches and tasmanian ash to the cupboards.

The main suite has a wall of wardrobes and a dual-access bathroom for the en suite effect.

Not so obvious is the sunken cellar and its wine racks under the stairway.

The house can only be seen by appointment with Baverstock Murphy and Associates.

Frank Platell