

# Southern Brook barnstormer



This stunning, sustainable energy efficient rural home is inspired by local vernacular and environment.

// **words** john damant – architect

Inspired by the local vernacular of hay sheds and farm buildings, this family homestead sits comfortably in its rural landscape. Demonstrating the importance of outdoor living as an extension of the home, this design makes full use of interconnected “outdoor rooms” to provide an intermediate space between the indoors and the vast, often harsh, environment.

My clients, Greg and Joanne, had been living in Northam with their young family until purchasing a large rural block with the intention of making a “bush change” and revitalising denuded farmland into a sandalwood plantation.

They came to me wanting a home that would be as self-sufficient and sustainable as feasible, and loved the idea of a “verandah” and extensive outdoor entertaining areas that could be used year-round. And they wanted it to be able to be owner-built using local skills and expertise.

Their current heritage home in Northam had some features they liked, but was a disaster from a solar passive and energy



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My initial inspiration came from the local forms of barns and hay sheds in the region, not only for their uncomplicated forms but for their practicality, appropriateness to local skill-sets and ability to withstand extremes (which in this area includes a risk of earthquakes). I also felt that their powerful forms sat well in the vastness of the landscape and would age well with virtually no maintenance.

The house is designed in an “H” plan form to allow for maximum cross-ventilation, solar access in winter and to create sheltered “outdoor rooms” for entertaining, swimming and relaxing.

A children’s wing to the south is linked by family and media rooms to the adults/ living wing to the north. In the centre of the “H” plan is a covered swimming pool (a necessity to reduce evaporation and protect from the dust that could be blown in) linked to a large alfresco with outdoor/wet kitchen. This is positioned to provide the best views towards the dry creek beds and sandalwood trees.

The most striking feature of the home, and what gives it a

unique presence in the landscape, is the wraparound “reverse pitch verandah”. This works like a traditional verandah in providing summer shade and protection from the elements, but unlike a traditional verandah allows winter sun and abundant natural light into the home.

The ceiling of the verandah is clad in recycled jarrah floorboards, giving a warm glow to the space when combined with the natural sandstone floor. This space is not only functional and climate-sensitive, but provides a fantastic “scooter track” for the children.

The “butterfly” roof form created by the verandah is served by a metre-wide stainless steel box gutter that collects all the roof rainwater for storage in 400,000 litre rainwater tanks. It also creates a unique profile that has earned the home the nickname “the flying nun” by some of the locals!

The interiors of the home are modern and airy, giving all rooms a connection to the outside landscape. The state-of-the-art kitchen is the heart of the home with its gleaming black surfaces contrasting with the silver-flecked quartzite-tiled floors. Floor to ceiling Comfort Plus glazing in a green tint give constant views to the



changing landscape outside. A nice touch by the owners are the inspirational quotes etched on prominent walls that double as artwork and literature.

From an energy efficiency point of view, the home is performing exceptionally well in an often extreme climate.

As the owners say "the house maintains a comfortable temperature extremely well, and even though we have installed air conditioning we use it 80 to 90 % less than we did in the old house."

This can largely be put down to the careful planning of the home to utilise solar passive principles along with the adoption of energy efficient appliances and fixtures. Ceilings, roof and walls are super-insulated, windows are low-e glazing, lighting is provided by LED fixtures and fans provide supplemental cooling to all rooms.

Water conservation is also key in a largely drying climate, and the home collects rainwater run-off from its extensive roof in 400,000 litre rainwater tanks. Taps and appliances are also highly water efficient, and evaporation to the pool is reduced by being under cover and with a pool blanket.

What became evident during the course of the design and construction of this home was the incredible energy and "can-do" attitude of my clients on this project.

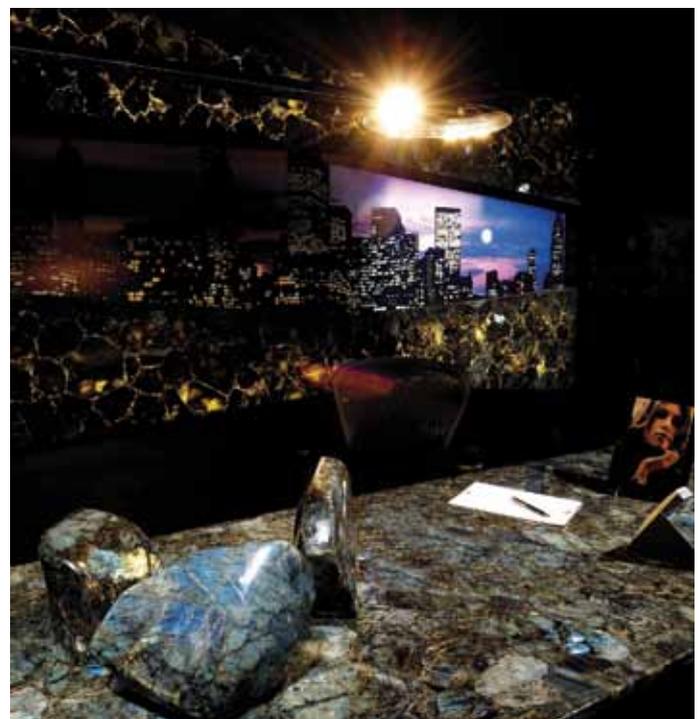
Built in only 14 months, this large and fairly detailed home has been built to a standard that would be the envy of most professional, full-time builders. The end product is testament to their determination and willingness to be open to new ideas.

And they seem as delighted as me with the end result.

In their words: "We cannot imagine living in any other home, or how any other home could possibly fit as well as this one does."

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