

**Magney House. Bingie Point, NSW, Australia.**  
**Glenn Murcutt.**

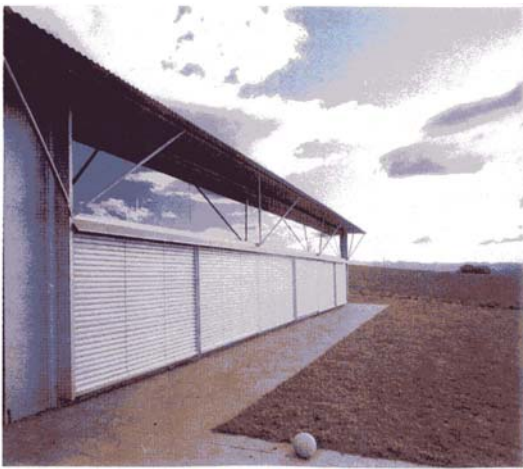
Adam Clark  
#20068840

Not only is Glenn Murcutt an advocate of Australian vernacular architecture, he is often credited with its genesis<sup>i</sup>. His distinct style has become the icon of environmentally conscious design in Australia, thanks to his ability to produce a winning aesthetic from his environmental systems. The Magney house is Murcutt at his most fundamental in regards to its design. It has been criticized as being perhaps overly simplified<sup>ii</sup>, with its simple rectangular plan and basic organization. It does however, meet all the needs of the site as well as the stringent demands Murcutt places on himself. The Magney house is the most well defined example of how to meet the general environmental needs of the Australian rural house.

Magney house is located at Bingie Point, Moruya, and approximately three hundred kilometres south of Sydney, Australia. The region's climate is hot arid in the summer and cool in the winter, with most of the precipitation accumulating in the winter and early spring, from June to September, though no season is entirely dry, nor is any season extremely wet. The sun is very intense and bright in the summer, coming from a relatively high angle, though not immediately overhead. The treatment of solar gain in the particular area therefore is similar to that in southern Ontario, with its orientations reversed to suit its location in the southern hemisphere. The prevailing winds blow in from the north from off the waterfront, providing a cooling breeze year-round, and its coastline location moderates the climactic effects that are felt further inland. The house is located at a fair distance from the nearest utility infrastructure and so it must be able to function autonomously for the most part. A hearth located between the master bedroom and the main living area, facing the latter, is able to heat the house in

the winter, when night time temperatures approach, but rarely fall below, the freezing point.

The Magney house runs east/west, with its main longitudinal façade oriented to the north. This side of the building is entirely glazed, with a span of clerestory windows above the main length of glazing below. The lower section is enclosed in an external blinding system that is manually and individually operated. In the summer months, the sweeping overhang of the roof prevents fenestration along the northern façade, while in the mornings and evenings the



blinds can be closed to reduce exposure and glare. The clerestory windows remain bare at all times, though at times when light penetrates these windows in the summer, the result is only the illumination of the opposite southern wall. By contrast, in the winter, when solar gains are desired, the northern façade lets in ample light and warmth. According to the client,

the morning winter sun illuminates the entire house, “climbing half-way up the back wall”<sup>iii</sup>. Taking advantage of all of the free solar energy, the concrete floor slab and back wall both act as heat sinks, absorbing solar heat during the winter days and reradiating it during the cool winter nights. The boldly glazed north façade also presents important views to both the nearby lake and the coast.

The large sweeping roof is the only non-rectilinear element of the structure, and is Murcutt’s defining gesture of the Magney house. It consists of two convex arcs spreading out in opposite directions from the middle of the building. The roof is one of the few departures the Magney house makes from Murcutt’s fundamental principles; his roofs are usually sloped inward toward a central gutter or outward toward drainage pipes along the side. With the Magney house however, the large curved roof bends in both directions, though its convex

nature merely hides the fact that almost all rainfall that hits the roof will still drain into the centre trough. The reason Murcutt decided against a simpler butterfly roof was to also bring in a design for better ventilation. The curved nature of the roof structure allows the breeze to come in from the water, where it follows the roofline to the very back of the house. The air current is directed down along the curve to the living space to ventilate the entire house. The large influx of fresh air from the high northern end of the house into the low southern end should pressurize the stale air back out.

Of course, being Murcutt's design trademark, the Magney house implements a highly visible, albeit simple (yet effective), water drainage/storage system. Murcutt places the same style of system in all of his homes, including even the very suburban Ken Done house in Mosman<sup>iv</sup>, and makes a Murcutt house immediately identifiable. Like the rest of the Magney house, the water

system seems to show the fundamentals of Murcutt's drainage design more than his development of it. The uncharacteristically convex aluminium roof has corrugations which run across it, draining rainwater into an off-centre drainage trough which then carries the water

along the length of the house and into one of two down pipes (which double as porticos over the two exterior entrances). The water is then fed into an underground cistern, where it is reused.

The plan of the Magney house is simplified based on Murcutt's theory that the house has, fundamentally, very simple requirements<sup>v</sup>. On the northern side,

and along the entire length of the house, are the living areas, each with sunlight exposure and views to the water. Along the southern side are the service and utility rooms, of which only the kitchen has any glazing, a comparatively small south facing window over the kitchen sink. Separating the two is the circulation space, a corridor along the entire length of the house. The sweeping roof hits a low of 2.1 metres over the hallway, but extends to over three metres on the north side, heightening the living space to more comfortable levels.

Glenn Murcutt's construction methods are carefully thought out with respect to environmental impact. In deciding on the appropriate material, Murcutt considers not only its immediate environmental impact, but he weighs the total energy consumption needed in primary and secondary processing as well as construction and maintenance<sup>vi</sup>. For example, although wood is a renewable resource, it requires a lot of energy to produce and maintain, while aluminium, though requiring large amounts of energy to refine, requires little maintenance and is recyclable. Therefore Murcutt uses a lot of metal in his buildings, constructing long lasting structures with little labour, limiting the strain on both human and natural resources.

In keeping with Murcutt's desire to intertwine the inside and outside of the home into a unified space<sup>vii</sup>; he places in the centre of the Magney house a large



exterior patio, set within the realm of the interior space. It both draws the exterior in, and pushes the interior out, creating a space not just contained within the house, but also encroaching into the natural landscape. Though the metallic home is and was designed to be confrontational with the environment, so to is the environment a rugged and confrontational

one; and so, the Magney house looks undoubtedly as though it belongs implicitly on its site.

The clients of the Magney house wanted a symbol for their love of camping on the site<sup>viii</sup>, and so Murcutt attempted to capture that feeling in his permanent structure. This becomes not the excuse, but the reason for the simplification of the plan, as the house becomes a metaphor for the basic requirements for a comfortable human existence. Camping is the perfect symbiosis of human and environment and can be taken as the driving ideal behind much of Murcutt's work, personified by the clients of the Magney house. It's a harmonious ideal that gives insight into the vernacular mind of Glenn Murcutt, who's primary axiom is that of "refuge and prospect"<sup>ix</sup>; refuge from the harsh environmental conditions of rural Australia, providing the basic habitation and comfort needs of the client, and prospect, the relationship of the building to its landscape. Following these principles, the Magney house is a success; it is Glenn Murcutt at his most fundamental and a true representation of the architect's core environmental values.

Murcutt was the 1992 winner of the prestigious Alvar Aalto Award, given by a panel of leaders in the field of sustainable design to the architect who best integrates his/her work into the environment<sup>x</sup>. His design principles sprung from his careful study of Mies Van Der Rohe, as well as his visits to California to study the early vernacular design of the coastal United States<sup>xi</sup>. He brought back with him the ideals and goals of vernacular building and set out to define exactly what the national architecture of Australia should be. He is passionate and committed to the ideas that are close to his heart and has never wavered when implementing them into the buildings that have won him fame. Even with his popularity, Murcutt never designs beyond the scope of the single-family residence, dedicating himself wholly to his well-honed skills at creating bold, environmentally conscious architecture with no exceptions.

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<sup>i</sup> Leaves Of Iron, Philip Drew, *The Law Book Company Limited*, Sydney, 1985

<sup>ii</sup> Three Houses, E.M. Farrelly, *Phaidon*, New York, 2002

<sup>iii</sup> Glenn Murcutt: Buildings and Projects, Francoise Fromonot, *Thames and Hudson*, London, 1995

<sup>iv</sup> Glenn Murcutt: Buildings and Projects, Francoise Fromonot, *Thames and Hudson*, London, 1995

<sup>v</sup> Three Houses, E.M. Farrelly, *Phaidon*, New York, 2002

<sup>vi</sup> Leaves Of Iron, Philip Drew, *The Law Book Company Limited*, Sydney, 1985

<sup>vii</sup> Leaves Of Iron, Philip Drew, *The Law Book Company Limited*, Sydney, 1985

<sup>viii</sup> Three Houses, E.M. Farrelly, *Phaidon*, New York, 2002

<sup>ix</sup> Leaves Of Iron, Philip Drew, *The Law Book Company Limited*, Sydney, 1985

<sup>x</sup> Three Houses, E.M. Farrelly, *Phaidon*, New York, 2002

<sup>xi</sup> Leaves Of Iron, Philip Drew, *The Law Book Company Limited*, Sydney, 1985

Images:

Image i Glenn Murcutt: Buildings and Projects Francoise Fromonot, *Thames and Hudson*, London, 1995

ii Three Houses, E.M. Farrelly, *Phaidon*, New York, 2002

iii Glenn Murcutt: Buildings and Projects Francoise Fromonot, *Thames and Hudson*, London, 1995

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