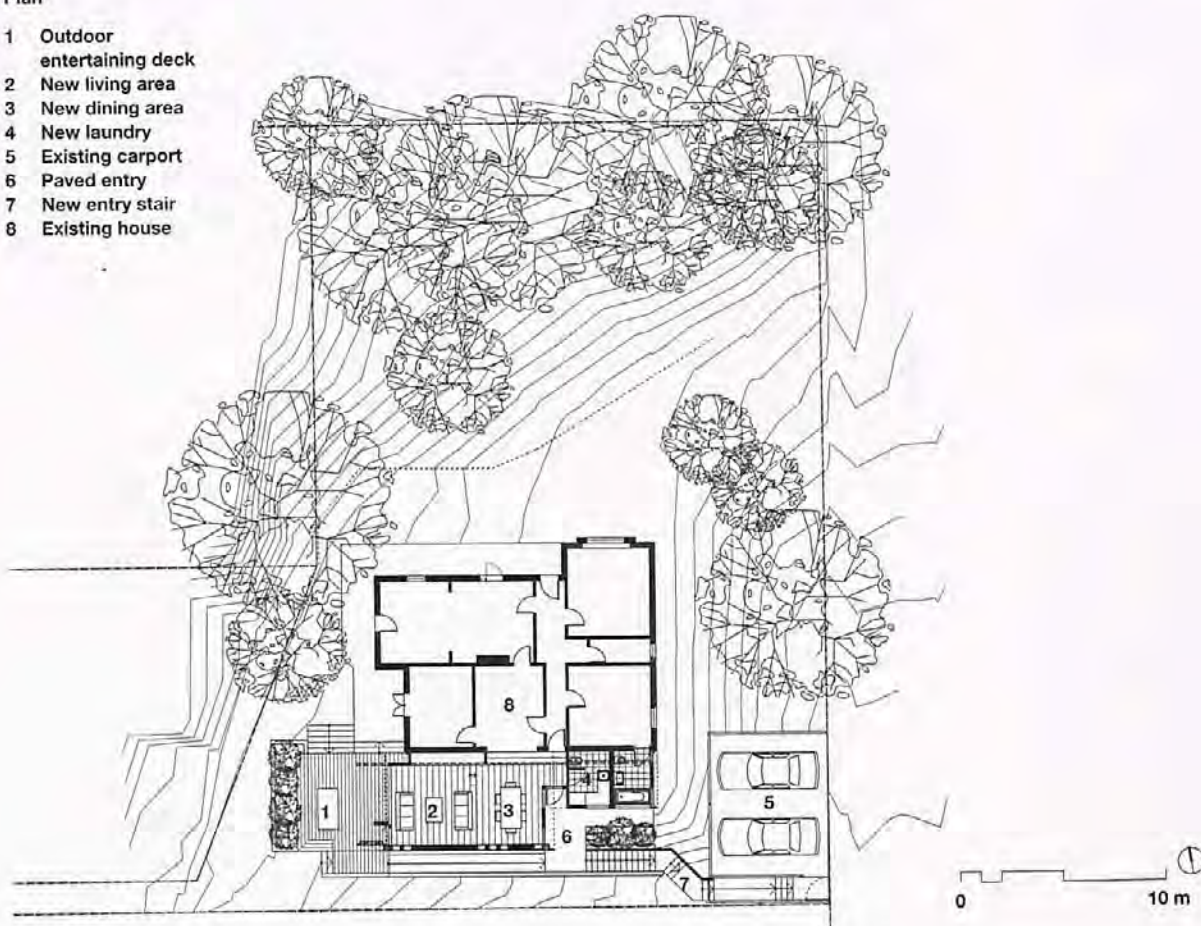


FOLDED ADDITION

Beneath an arcing roof form, this neat extension by Sam Crawford Architects combines contemporary living with the existing house's pre-Federation history. **Story by Mark Scruby Photography by Brett Boardman**

Plan

- 1 Outdoor entertaining deck
- 2 New living area
- 3 New dining area
- 4 New laundry
- 5 Existing carport
- 6 Paved entry
- 7 New entry stair
- 8 Existing house









PREVIOUS PAGE: Additions to the house were confined to the southern portion of the steep site, maintaining the integrity of the pre-Victorian building.
THESE PAGES: The overhanging roof provides shade in summer. Its folded form minimizes visual disruption to neighbours and maximizes light penetration.

ARCHITECT SAM CRAWFORD describes the genesis of the Wave House as a “back-of-an-envelope moment” – a flicker of inspiration that delivered a fully formed concept for an addition to a pre-Federation house in Sydney’s city-within-a-city, Chatswood. “It wasn’t literally on the back of an envelope,” he says, “but as soon as I got back to the office from the site, I sketched the idea on some yellow trace. Then I simply slapped a date/title block stamp on it and ran it through the scanner for our first design meeting.”

The simplicity of this approach is reflected in the simplicity of the design itself – a curling wave, breaking to the north to channel sunlight into an open living and dining space. This uncomplicated approach can be attributed, in part, to the clients and their brief. The original brick house was dark inside with verandahs to the north and west that prevented winter sun from warming the interior. A ramshackle bunch of fibro additions, built with scant regard for either form or function, had accumulated at the rear of the house, and the clients wanted a sunny family room and general living space to take their place. The only other requirements were a combined laundry and toilet, and an ensuite for the master bedroom. “It was a great client brief,” says Sam. “The clients were modest about what they wanted. They didn’t need a lot so they didn’t ask for a lot. As a result, we could focus on meeting their objectives without being distracted by unnecessary complexity.”

As idyllic as all this sounds, the path from initial brief to project handover wasn’t exactly straight and narrow. As you can see in some of the photographs published here, this is not a quarter-acre block in the suburbs. To be kind, we could call the site idiosyncratic; to be more honest, we should diagnose it with multiple personality disorder. To the east, the nondescript office towers and apartment buildings of Chatswood’s business district shoot skywards; to the north and west, the land falls away in a lovely mess of eucalypts and looks out toward a heavily forested valley and distant mountains; and to the south, there’s a neighbouring house standing at close quarters. What’s more, through a quirk of planning and development, the house has no real street frontage – access is gained via a laneway along the eastern boundary. And because of the sloping topography, the laneway is roughly at the same level as the house’s roof. Suddenly, in this strangely urban/suburban/rural context, Sam’s back-of-an-envelope moment seems all the more impressive.

In the initial sketches, the wave was expressed as a true curve, but the cost of construction exceeded the clients’ budget. As a result, the roof gained an angular geometry comprising three flat planes which, to my eyes, transform the wave into a curled hand. In many ways, this provides a better analogy for the extension: the hand scoops natural light into the living area, shields unsightly views of tall buildings and gently cups its occupants. It’s a nurturing mitt, not a crashing wall of salty water.

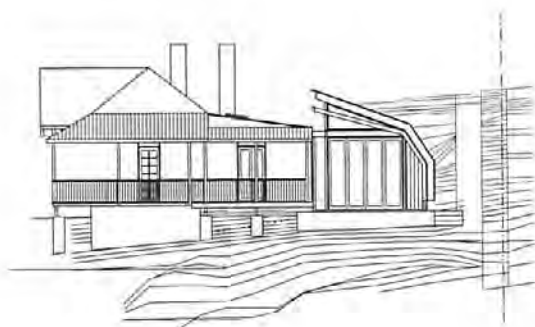
Whichever metaphor we use, the distinctive form of the extension serves multiple architectural strategies. Most obviously, it lifts up to the north to catch sunlight beaming in over the roof of the existing house. Sunlight penetrates the living space through expansive clerestory windows and bounces off white walls and pale bamboo flooring. The folded form is also friendly to the neighbours, as it limits the visual impact of the new structure and minimizes overshadowing.

Because access to the site was difficult, materials had to be craned in from the laneway, which added an extra layer to the overall cost. As a result, no masonry was used in the construction of the walls and a relatively modest material palette was specified. The wave is expressed primarily by its steel framing. This, combined with the perfectly balanced scale of the addition, creates the impression of a building that makes a gentle connection with the original house and its landscape. The addition is unquestionably stunning, but it doesn’t dominate its surroundings.

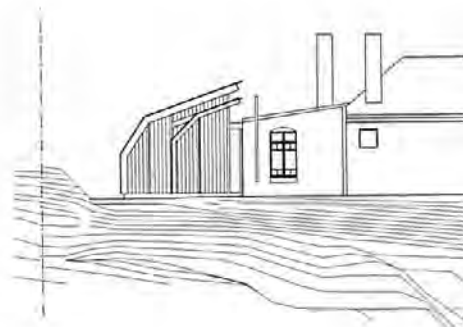
The eastern end of the wave is sealed with polycarbonate sheeting that admits light by day and glows like a lantern by night. To the west, the living area opens out onto a large outdoor entertaining deck and looks out to the bushy terrain beyond. Of course, a western orientation, with its summertime implications of blinding afternoon sun, isn’t on every architect’s alt-and-add wish list, but Sam’s solution of bifold doors and an external blind mitigates the light and heat with aplomb. When the blind is extended and the bifolds are open, the internal climate is regulated by cooling breezes and shielded from scorching rays. With the living area in this protected mode, the sheer fabric still affords scenic outward views and, as afternoon drifts into early evening, nearby trees cast animated shadows against the blind, transforming it into a kind of projection screen.

Some of the challenges on this project could have been negated by placing the addition on the northern side of the residence, but Sam balked at the idea – it would have defaced the original house and destroyed its historic connection with the landscape. Now, if I had a dollar for every time I’ve heard an architect or their client express frustration at being limited by a heritage overlay, I’d have enough money for a twelve-month subscription to *Houses* – easily. So I was a little surprised to hear this architect say, “The existing house isn’t heritage-listed, but we feel that it probably should be.”

On reflection, I think this says more about Sam than about the house. One of his previous projects – the transformation of a convict-built stable into a twenty-first-century home – strikes a similar balance between contemporary design and respect for a building’s history (see *Houses* 64 for details). In both projects, the design is in unswerving service of the clients, of the site and of the existing house. It’s this unpretentious approach to architecture that makes the Wave House so successful. H



West elevation

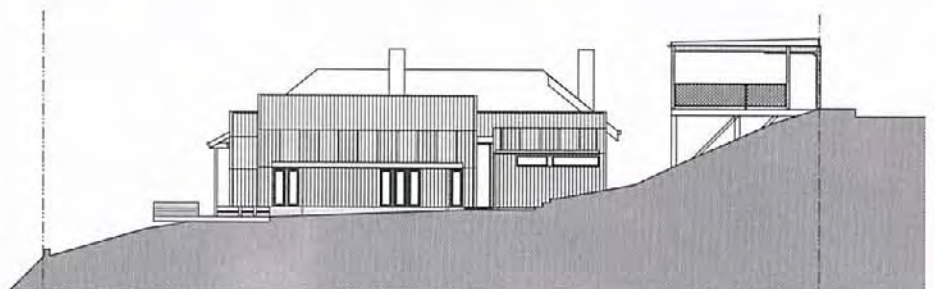


East elevation





South elevation



THIS PAGE: The compact addition contains a dining and living space, laundry and master ensuite. Folded Colorbond steel frames the elevation, and spotted gum decking flows from the new building to the old building, linking the two volumes. Sustainable and hard-wearing bamboo flooring clads the concrete floor.



ARCHITECT

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PRACTICE PROFILE

An emerging practice working on residential projects and, more recently, small public buildings and community projects. The practice also specializes in heritage conservation, interiors and furniture design.

PROJECT TEAM

Sam Crawford, Nic Tang, Miles Heine, Cressida Beale

BUILDER

Latitude Constructions

CONSULTANTS

Engineer O'Hearn Consulting
Quantity surveyor QS Plus

PRODUCTS

Roofing Lysaght Custom Orb, Colorbond 'Shale Grey' and 'Windspray'; Boral glasswool insulation and sarking **External walls** Lysaght Custom Orb, Colorbond 'Shale Grey' and 'Windspray'; Zincalume; compressed fibre cement; Lexan Thermoclear twin-wall polycarbonate sheeting **Internal walls** Lexan Thermoclear twin wall polycarbonate sheeting; Zincalume; plasterboard **Windows** Timber windows and Breezway louvres; Madinoz hardware **Doors** Centor hardware; Madinoz handles **Flooring** Eco Flooring BT Bamboo **Lighting** Artemide Surf wall light; Inlite pendants; Sylvania Slimite T5 **Bathroom** Duravit toilet and Vero basin; Engelfield bath; Brodware tapware; Better Tiles tiles **Climate control** Natural ventilation **External elements** CSR concrete block; Eco Concepts pavers; Australian Architectural Hardwoods spotted gum decking; Issey Vertiroll roller blind **Other** Bhola rug and cushions; Pierre & Charlotte coffee table and lamp; Hafele joinery hardware; Madinoz joinery handles

FLOOR AREA

169 m²

PROJECT COST

\$330,000

TIME SCHEDULE

Design, documentation 6 months
Construction 8 months

THIS PAGE: Winter sun penetrates the southern rooms through elevated glass louvres. Light filtered through polycarbonate wall panels supplements direct illumination from the windows and bifold doors.