



TENT PITCHED

Beside the fringe of Garigal National Park, the glass and steel house architect Ed Lippmann designed for a

Sydney engineer makes a light touchdown atop its rocky site **Story by Philip Drew Photography by Willem Rethmeier**

THE QUESTION of weight or lightness is ancient. The Greek philosopher Parmenides divided the world into dualistic pairs, a system which viewed lightness as positive and weight as negative. Today, we seem to be very much in agreement with Parmenides. But was he correct? Author Milan Kundera once asked whether heaviness is truly deplorable and lightness splendid. Should our houses be heavy or light?

Surrounded by its collar of bushland, the Carfrae house proffers a suggestion. From the outside, it seems as light as a tent. Inside, it is equally free. You might consider it a fixed tent, its glass skin much the same as a Bedouin tent, measured according to the number of cloths that make up its same airy weightlessness.

Sydney's climate is benign much of the year. We do not require dwellings that double as heavy defensive structures. The arrival of modernism in Australia introduced the pavilion, a light garden structure of steel and glass, which challenged architects to experiment with the materiality of the house and pare it back to see how much of it is truly necessary in a temperate climate.

As a structural engineer, client Tristram Carfrae is continually in conversation with architects, and was uniquely placed to respond to Ed Lippmann's desire to make a minimal structure. Sited below the street, the two-storey steel frame stands directly atop sandstone ledges, a lightweight shelter under a gently inclined, mono-pitched steel roof.

On arrival, an uptilted roof salutes the visitor in counterpoint to the main roof, which yawns in the opposite direction toward the canopy of trees in adjacent Garigal National Park. External colours are generally understated with a gentle emphasis on light greys and browns to reflect the palette of surrounding angophoras and eucalypts.

From the carport, the two levels are reached by a single stair, its glass risers adding to its transparency, which steps down across the pond into the ground floor living area. Within the house, on the main day living level, the space spreads effortlessly out into the bush beyond, but remains anchored to the site. Turn around and on the high street side there is a view of rock ledges and the pond. The house orientation is slightly east of north, and in the summer sun reaches into the south face. "The site's northern boundary with the national park allowed the two floors below the street to maintain a minimal profile," Ed says.

"No excavation was required and all of the established native trees were retained."

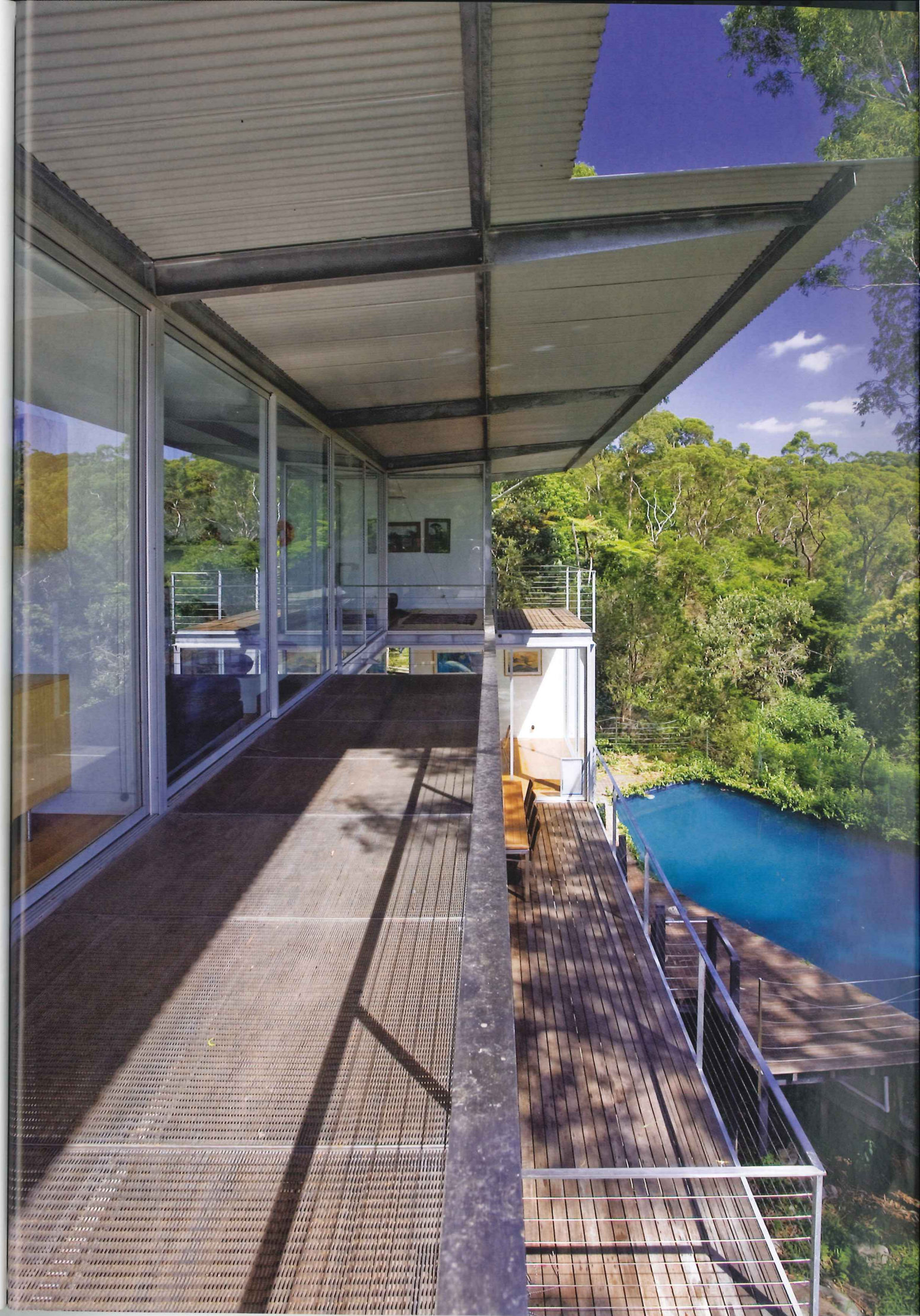
A triple-track system of sliding glass walls introduces the interior to the outside, with circulation at the back and front. Roof gutters have been eliminated; rainwater falls directly into a rock pond, over which cooling breezes pass into the house. The pond empties across the sandstone following its natural pattern into the bushland below.

Downstairs, eye-catching bright yellow cabinets put a brake on the linear movement from the open living and dining areas through to the rumpus room at the opposite end. Across the north front, a timber deck extends the interior to the outdoors. The night areas upstairs are organized differently; ensuite bathroom, linen storage and storage cabinets cluster along the south wall, leaving the north edge bedrooms and study unencumbered. A lightweight metal roof shoots forward overhead, engaging the trees and pulling back in places to admit winter sunlight or advancing to shade the foredeck extension of the living space below. "Natural daylighting is combined with compact fluorescent lighting, which has been used throughout the house," Ed explains.

Supported on particleboard sheets, the timber floors are practical and enhance acoustic isolation from the noisy day areas. An open stainless steel floor deck interposes itself lightly between the bedrooms above and the hardwood outdoor deck underneath. Tristram reduced the galvanized steel columns to be so minimal that one almost doesn't see them, in a deliberate opposition with the large ceiling planes. He recalls the pleasures of the house during summer. "When you open all these doors on a warm night, it is most glorious," Tristram recalls. "You spill onto this deck with the bush beyond and the garden behind you; these spaces are slightly delineated but not really separated. It's just brilliant."

Just how much house is really necessary? The Carfraes and their architect have achieved a lightweight refuge that touches gently upon the ground and reaches outward to the expanse of green surrounding it. Henry David Thoreau, the American nature writer, recalls the simplicity of human life in primitive ages when humans "dwelt, as it were in a tent in this world." There is a great deal of this present in the Carfrae house. It's a dwelling that leaves its inhabitants unencumbered, and able to live directly in nature, not as prisoners behind walls, but liberated and sheltered. H

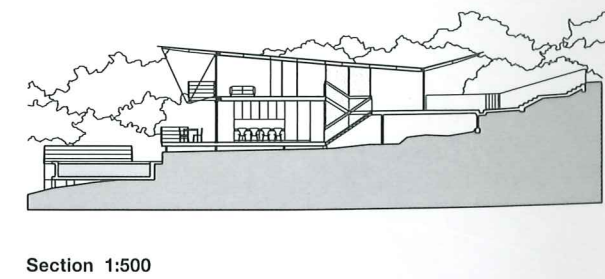
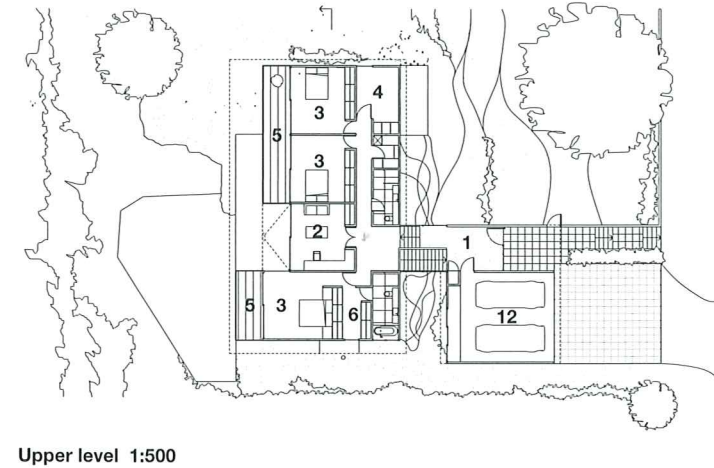
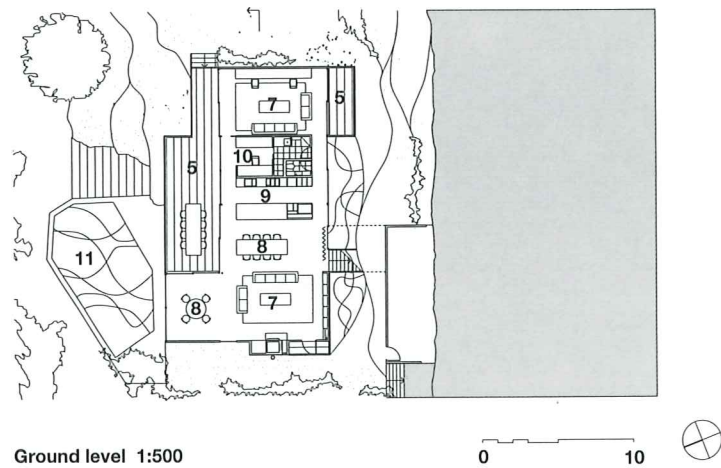
PREVIOUS PAGES: The building is akin to a tent stitched together from 4.5 metre sheets of glass and pegged to the rocky, sandstone site by steel columns. **OPPOSITE:** The existing pool, accessible from the lower deck, was central to the new design. Bedrooms run the length of the upper deck.



BELOW: Stacking doors can be pulled back like the flaps of a tent in the summer to make the house a lengthy breezeway. Bright gloss yellow joinery offers a colourful counterpoint to the subdued greys, browns and whites in the construction and the surrounding angophoras and eucalypts.



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| 1 Entry | 7 Living |
| 2 Study | 8 Dining |
| 3 Bedroom | 9 Kitchen |
| 4 Store | 10 Studio |
| 5 Deck | 11 Swimming pool |
| 6 Robe | 12 Garage |





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PRACTICE PROFILE
Practice specializing in residential, public buildings, industrial and commercial buildings and master planning.

PROJECT TEAM
Ed Lippmann, Rolf Ockert, Jason Wedesweiler

BUILDER
JF Constructions

CONSULTANTS
Engineer ARUP
Landscaping Sue Barnsley
Interiors Lippmann Partnership
Lighting Lippmann Partnership

PRODUCTS

Roofing Colorbond custom orb
External walls James Hardie expressed joint fibre cement, painted; G. James clear anodized aluminium-framed glazing
Internal walls CSR plasterboard steel-framed stud walls, painted
Windows Stacking glass, floor-to-ceiling sliding and fixed glass
Doors Aluminium frame with solid core
Flooring Structural steel with steel purlins and plywood T&G floor bands
Lighting Low-energy compact fluorescent fittings
Kitchen Amani stainless steel double fridge; St George stainless steel cooktop and wall oven; Panasonic microwave oven; Miele dishwasher; stainless steel benchtop with integrated sinks; Intamix chrome-plated gooseneck spout
Bathroom Ceramic tiles; stainless steel joinery with integrated sink; Rogerseller Logic tapware; Caroma wall-hung pan with Water Wafer in-wall cistern
External elements Blackbutt decking; galvanized steel mesh (elevated bedroom decks); stormwater pond formed into rock landscape and provided with overflow pipes to retention tanks

FLOOR AREA
240 m²

PROJECT COST
\$800,000

TIME SCHEDULE
Design, documentation 12 months
Construction 12 months

LEFT: Along the southern side of the house thrives a microclimate of native flora and ornamental carp. It's fed by roof water runoff, which flows into a sandstone escarpment, then overflows into stormwater retention tanks.