



# SEASONED APPEAL

DESIGNING FOR CLIMATE ISN'T JUST ABOUT CHASING THE SUN. NOR IS IT JUST ABOUT DESIGNING BETTER ENERGY SOLUTIONS. IT'S ABOUT CHANGING THE WAY WE ACTUALLY LIVE IN OUR HOMES, AND AS THESE ARCHITECTS AND DESIGNERS DEMONSTRATE, DESIGNING AROUND THE SEASONS CAN WORK BEAUTIFULLY.

**text** Annie Reid

*(inside)*



**SUMMER** In her work, principal architect Fiona Winzar enjoys exploring masculine and feminine elements, with a focus on environmental sustainability. Her award-winning Victoria Road project in Melbourne marries both, showcasing her client's gentle love of 'Indian bling' in a rear extension comprising a semi-circular shaped living and kitchen zone, with Ruby Red Viridian highlight windows, a patterned ply ceiling and brass finishes.

Facing north-east, floor-to-ceiling panels of double-glazed Viridian glass provide a seamless connection to the swimming pool and backyard. Pushing the sustainable envelope, all of the north-east window panels feature fully automated blinds, which enable the owners to fully control the sun's penetration.

"It's rare for people to have that degree of flexibility and control," says Winzar. "If they want to shut right down when it's super-hot, or want the sun to flood in during winter, they can. It covers every aspect." The pink highlight windows also contribute to the family's living environment. Initially designed to ensure privacy and provide a joyful alternative to blue sky, they offer a different quality. "It's like a soft pink sunset," Winzar laughs. "And the clients love the way it changes over the day and seasons."



**AUTUMN** As the weather cools and winds pick up, cross ventilation and insulation become vital. Based in Victoria, ArchiBlox houses are designed with this in mind, using affordable, standardised modules that celebrate sustainable philosophies.

With an end-to-end timeline of around six months, the company designs 8 star prefabricated houses that can shut down, open up and vent out depending on the client’s wishes, for around \$2000 per square metre. “The houses become alive,” says director and architect, Bill McCorkell, who operates the business with builder, Dave Martin. “I’m a massive fan of layering, so wintertime, springtime, summertime or autumn time, there are all these different times of the day when you should make use of the house in different ways.”

A bespoke example is Meanderrri Drive, Inverloch, which ArchiBlox designed using three modules, featuring three streams of cross ventilation to capture prevailing winds that flush the house after extended hot spells. Low windows are designed to the south, while high windows are on the north, allowing natural convection and cooling of the thermal mass. “Having ventilation to all rooms works really well from a solar access point,” McCorkell explains. “The owners absolutely love it.”

With five completed houses, and 10 under construction, ArchiBlox is only four years old and McCorkell is passionate about its future. “Everyone should be able to enjoy an architecturally designed home.”



**TOP**—DOUBLE GLAZING, A CONCRETE FLOOR FOR THERMAL MASS AND NORTH-FACING LIVING AREAS PROVIDE SOUND PASSIVE DESIGN FEATURES / **BOTTOM**—MEANDERRI DRIVE’S ELEGANT BATHROOM / **PHOTOGRAPHY** DAN SMITH



**TOP**—RED HILL HOUSE'S EXPOSED CONCRETE SLAB FLOORING PROVIDES EXTENSIVE THERMAL MASS / **BOTTOM**—THE BATHROOM'S LARGE WINDOWS LET IN AMPLE LIGHT / **PHOTOGRAPHY** AXIOM PHOTOGRAPHY

**WINTER** For Ken Charles, co-director of Centrum Architects, passive ESD has always been at the forefront of his practice. So when clients suggested a geothermal system for their new home in Red Hill on Victoria's Mornington Peninsula, he was happy to oblige.

Using the trenching method, eight 90-metre runs of 25-millimetre poly GHS heat collector piping were installed in four trenches in the front yard, at a depth of 1500 millimetres across a large expanse of 2400 millimetres. Water is pumped through the piping into a heat pump and then heated or cooled through the hydronic underfloor piping. "It does take up a fair amount of space, but it is integrated within the landscape design and you don't see any evidence of it," says Charles.

With extensive thermal mass provided by the vast amount of exposed concrete slab flooring – also part of the brief – the system easily meets its heating and cooling requirements at a minimal cost. "It's very user friendly," Charles continues. "It doesn't cause irritation and it's a soft, warm effect, with heat that gently rises and warms the floor."

Furthermore, he says it wears differently to a timber or carpet. "The concrete slab eases in with you, and its thermal effect is so comfortable the grandkids play on the floor." In the absence of a slab upstairs, a ceiling mounted fan convector with ducted outlets provides heating, with the entire effect a smart energy substitute. "It also localises the energy system instead of drawing power from the grid," says Charles.



**SPRING** While green roofs are nothing new – there are plenty around Australia – living green walls have become especially popular, with sustainable benefits including improved air quality, amenity, extra insulation and screening from the sun.

Mark Paul, director of The Greenwall Company, has recently completed a green wall for a client's beachfront house in Sydney's Mosman, one of a number of green projects on the property. "It's in a loggia underneath their swimming pool," says Paul. "They wanted it to be lush, green and peaceful."

Facing north-east and just a few metres from the saltwater, the green wall features a cross-section of native and exotic plants, and was constructed off-site in Paul's greenhouse. Without borders or symmetrical elements, it was designed to fit into the large, floating sandstone rocks that form part of the rear wall in the loggia. "Now it looks as though it is part of the rock face," Paul says. It attracts the morning sun, as well as a few unwelcome visitors. "We had to alter and change the edible parts of the plantings, and move the possums on," Paul laughs.

The family now has an entertaining area that fulfils their brief, where they can enjoy a barbecue or push their boat out, in an area that was previously neither inviting nor functional.

**TOP**—THE GREEN WALL IS VISIBLE IN A LOGGIA BENEATH THE MOSMAN HOUSE'S SWIMMING POOL / **BOTTOM**—THE VIEW FROM THE LOGGIA OUT TOWARDS THE BAY / **PHOTOGRAPHY** CHRISTOPHE SACHS

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