FOLIO

THE ELEMENTS OF DESIGN ● A MAGAZINE BY **BRICKWORKS**

Welcome

Welcome to the second edition of **F●LI●**, where we explore how materials help to both inspire and create great architecture. A magazine by Brickworks Building Products, each issue of **F●LI●** sets out to unpick the design thinking behind a selection of exceptional buildings to understand how and why a specific material – be it brick, concrete, timber or tile – was used.

As with our previous issue, the editorial emphasis in the pages that follow is on architectural ideas and, importantly, how those ideas are made real through materials and construction. Accordingly, each project feature boasts not only inspiring photography and explanations by expert architectural writers, but also a carefully chosen selection of drawings that describe key construction details.

Whether you're in the business of architecture, looking to commission an architect, or just passionate about good design, **F●LI●** should prove to be both a source of inspiration and an invaluable reference tool. We hope you enjoy the issue.

— *Lindsay Partridge*

MANAGING DIRECTOR,
BRICKWORKS BUILDING PRODUCTS

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profile

Article Alice Blackwood
Portrait Tom Ross

Material mavericks A chance meeting between two ambitious young designers, Ryan Russell and Byron George, led to the founding of *Russell & George*, a design studio that's become synonymous with exciting, edgy design inspired by experimental material use.

Russell & George

P.06 Ryan Russell (left) and Byron George (right).

P.07 The Millipede Sofa designed by Russell & George for Grazia & Co. Image—Lauren Bamford

***Ryan Russell* and *Byron George* are what you might describe as quiet revolutionaries. We come to them on the cusp of a new era in their seven-years-young business. Patience and persistence are paying off with the establishment of a new studio space for their team, in North Melbourne. The significance of this space, however, reaches far beyond a new office to call home. 'It's a 390-square-metre warehouse which will house our vision of future practice,' says Russell.**

Flexible and hard working in nature, they've designed the space to accommodate everything from early morning yoga classes to a fully operational research and development workshop, where new products can be produced, and materials and processes explored. 'We're looking to build a different model for architects and designers to work within, that's far more collaborative,' George adds. 'While most practices are quite reactionary and service-based, we're exploring a retail model for the industry.

'We're seeing a trend away from small- to medium-sized practices with larger businesses absorbing them. And Australia is not a big market. Those bigger guys are establishing global presences and we expect their Australian operations will, in five years' time, account for less than 30 percent of their revenue. We don't want to compete with that, but we see a gap of opportunity. So we're changing the competition and the way we operate.'

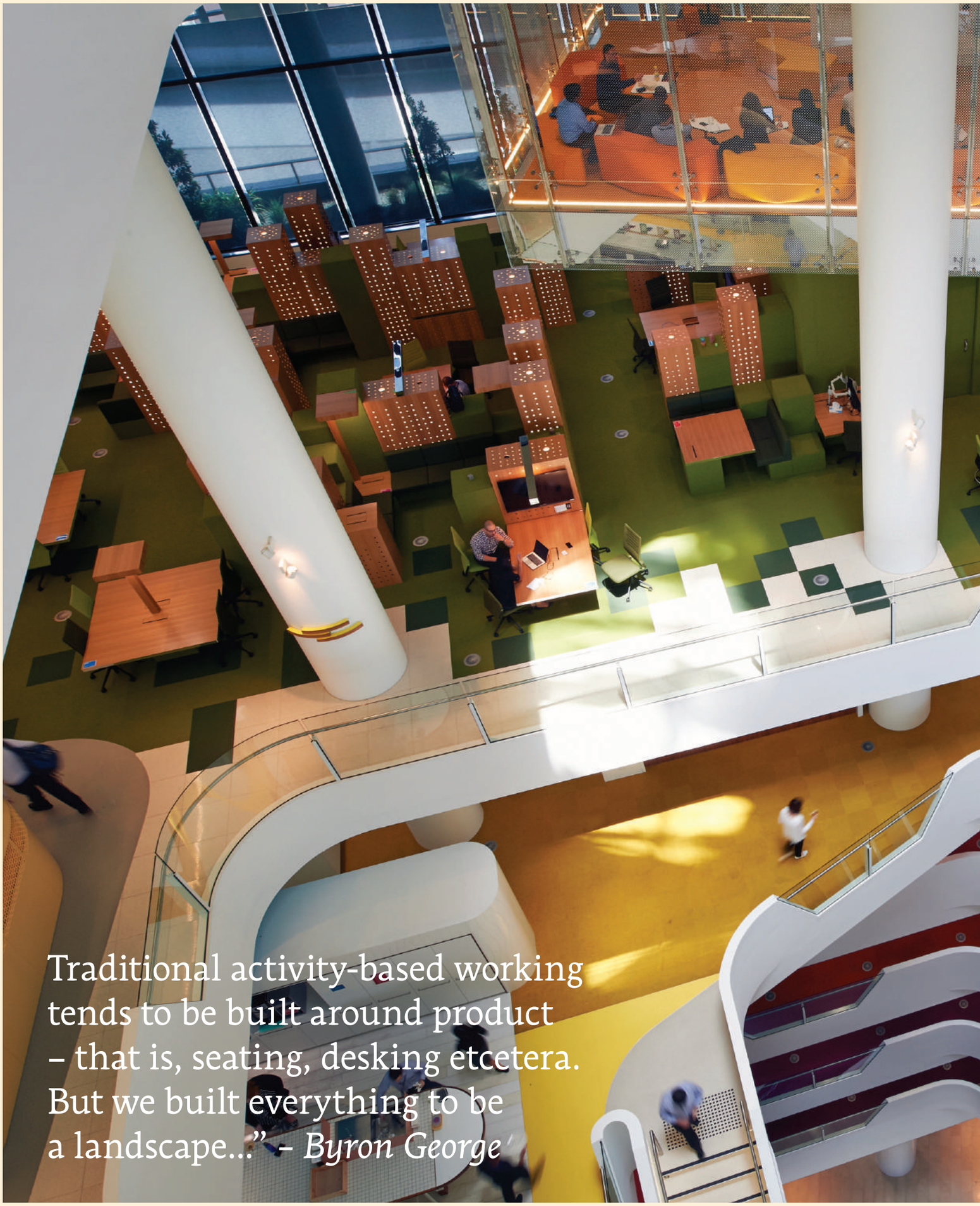
Russell and George are both keen observers, lateral thinkers and, above all else, they love to play. People, places and processes inform a highly conceptual approach that manifests in inventive takes on materiality and structural space. Both architecturally trained, but perhaps better known for their interior work, the two designers were once neck-and-neck in the race for most outstanding emerging design practice in Australia. In pooling their resources and joining forces, they got an edge on the competition and found like-minded synergies in experimentation, as well as 'where we felt the industry should go and how we wanted to run a business'.

'We're looking to invigorate the design process, to engage people in the industry that you may not normally go to,' Russell says – that is, to bring disparate skills and forces together to achieve unexpected results.

Their new North Melbourne space is purpose-built to facilitate this, in that 'it's our own workshop, with an artisan/fabricator as part of our team, so we're able to do R&D on site, explore things clients wouldn't necessarily let us do, or that we may normally outsource. Here we can design for a client, test our ideas and produce products in-house. We can literally walk from our desks to the workshop to get something made.'

Years ago, Russell and George put their big picture vision into play, opening a satellite office in Rome, Italy. It allowed them to service clients in neighbouring countries, as well as dip their toes into the flourishing Italian manufacturing and design scene. 'It gave us full access to a whole range of artisans across steelworks, fabric, Murano glass and more. And that informed the work we were doing back in Australia. We used it as research and development and hopefully in the future it will flip into something more substantial.'

P.09—1 The 2008 original interior of Aesop, Doncaster by Russell & George. Image—Dianna Snape
—2 The 2016 renewed Aesop Doncaster interior. Image—Trevor Mein



Traditional activity-based working tends to be built around product – that is, seating, desking etcetera. But we built everything to be a landscape…” – *Byron George*

The idea of ‘flipping’ is a common thread across their work. Particularly when it comes to experimenting with materials and interior structures. One of Russell’s original solo projects, an Aesop retail fit-out in Melbourne’s Doncaster retail precinct, offered up an exciting investigation for the team, when it came time to refurbish the space.

At the centre of the fit-out is a set of green Italian pool tiles. The quality inherent in their craftsmanship – not to mention their expert installation by an Italian tiler – had endured beyond the punishing five-year retail cycle. So, rather than do away with the tiles, Russell and George decided to retain them. Bringing new life and a reinvigorated brand message to the Aesop store, it also introduced a central curvilinear stainless steel counter to house sinks, seating, storage and visual merchandising.

Swathed in green tiles, the stainless steel structure sheds its hygienic, hard-surface character, instead appearing as a soft, sinuous mass. Light ricochets off the tiled walls and steel, creating whimsical, watery reflections on walls and surfaces. For customers and staff alike, it’s as if they are immersed in a pool.

It’s a great example of how the duo turn ideas and materials on their heads. Pushing the boundaries, finding new affordances and making them do something unexpected.

The direct relationship between materiality and structure comes into play in a recently completed Medibank commission. Invited to conceive an agile ‘workscape’ within Medibank’s new Melbourne CBD headquarters, Russell and George drew on their experience of working and living in Rome to develop a self-governing and democratic ‘landscape’.

‘Traditional activity-based working tends to be built around product – that is, seating, desking etcetera. But we built everything to be a landscape, rather than a model,’ says George.

Importantly their concept caters to both the extrovert – naturally at home in activity based working spaces – as well as the introvert. ‘We ourselves are fundamental introverts, so we understand the importance of having a favourite space or spaces you feel comfortable working within.’

Carpet tiles in varying shades of green offer acoustic relief while also creating the impression of a ‘pixelated’ landscape. Juxtaposed against perforated timber veneer panels, a city skyline emerges. Here among the abstracted Roman ruins workers can gather to collaborate on projects, while the introvert may seek out a cosy hidey-hole between broken-down colonnades.

Russell and George are defined by their ambitious ideas and willingness to experiment. Having risen from what they describe as humble beginnings – where once they alternated working days between each other’s lounge rooms, their shared conviction now pays off. New research and development is already underway and seven in-house designed products spanning residential, workplace, lighting and fabrics are set to be released in the next six months. Watch this space. ●

P.10 The ‘workscape’, top left, designed by Russell & George for Medibank’s headquarters in Melbourne. Image—Earl Carter
P.12 Emporium Food Court, Melbourne. Image—Dianna Snape

Set in concrete

[14]

INVERDON HOUSE
Architects Chloe Naughton
Type of project Residential
Location Bowen, Queensland, Australia
Year of completion 2016

Article Tim Ross
Photography Ben Hosking

P.14 Deep eaves and ample natural ventilation combine with simplicity and modesty to create a house well suited to its setting in rural Far North Queensland.

This modernist-inspired, relaxed residence by Brisbane-based architect *Chloe Naughton* combines the humble concrete block with the best of mid-century tropical design, to create a building perfectly calibrated to its Far North Queensland context.

P.16 In a nod to North Queensland's buildings of old, blockwork is the big signature of this project. **P.17** 'A verandah in disguise': expansive glass sliding doors connect the living area to the outdoors.

The last time I'd been to Bowen, located halfway between Townsville and Mackay in North Queensland, was in the early 1990s. I'd spent what felt like a month there one weekend while I waited for a wrecker to open so I could get a spare part for my recalcitrant Toyota HiAce van.

Almost thirty years later, the home of the Big Mango still has blokes in singlets and shorts propping up the bar, downing cold XXXX's while they flick skin cancer scabs on the ground. Now it's a place that also sports a coffee shop with $4.90 lattés and freshly minted replica chairs, though; where farmers believe in climate change, yet tourism folks deny coral bleaching.

This is regional Queensland, grappling with the old and the new.

I'm here to visit Inverdon House, the debut commission for Brisbane-based architect Chloe Naughton. Naughton is an ex-Bowenite and her clients here were her mum and stepdad. They gave her a relatively open brief, the only stipulation being that it had to be a flexible home that could accommodate their needs later in life and potentially a full-time carer.

The design, then, is influenced by an understandable fear of living in a nursing home.

With this in mind, Naughton designed and managed the build of a humble, modernist-inspired, two-bedroom residence on the site of her former family home. The existing building was split in two and half of it found a new home a mere 100km up the road.

This part of Queensland used to be known for homes with natural ventilation; residents knew how to hide under the verandah and let the breezes do all the heavy lifting. Then Mr Harvey Norman and Co. came along with a split system revolution, and Queenslanders turned their backs on the past and embraced the power of air conditioning. Friends still pop by for a cup of tea and a pumpkin scone (maybe a Tim Tam these days), but they no longer sit in the shade and listen to the rustle of the cane fields.

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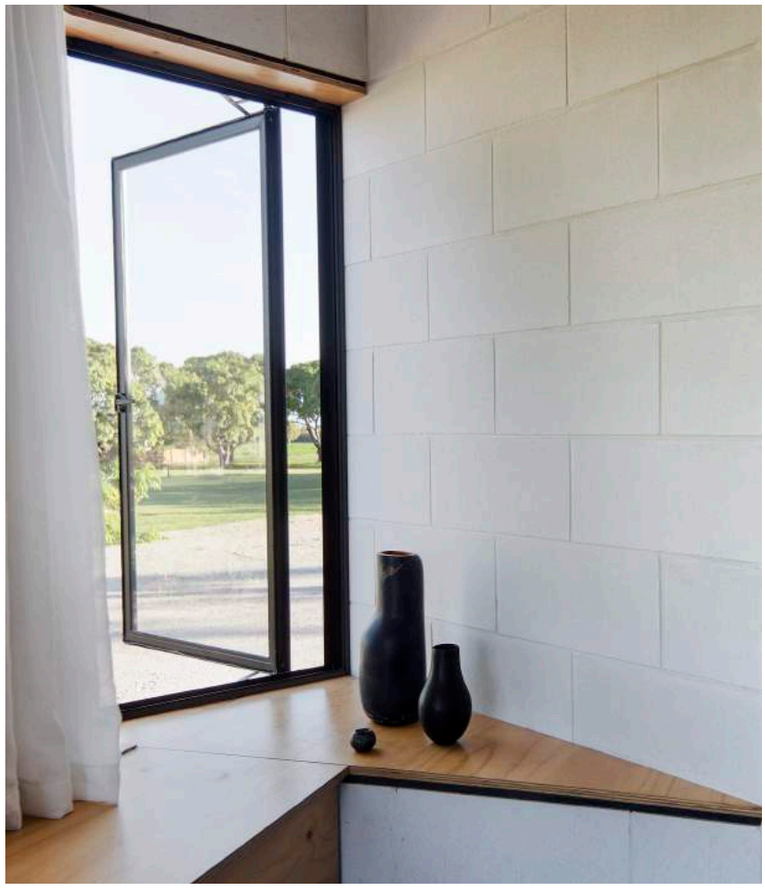
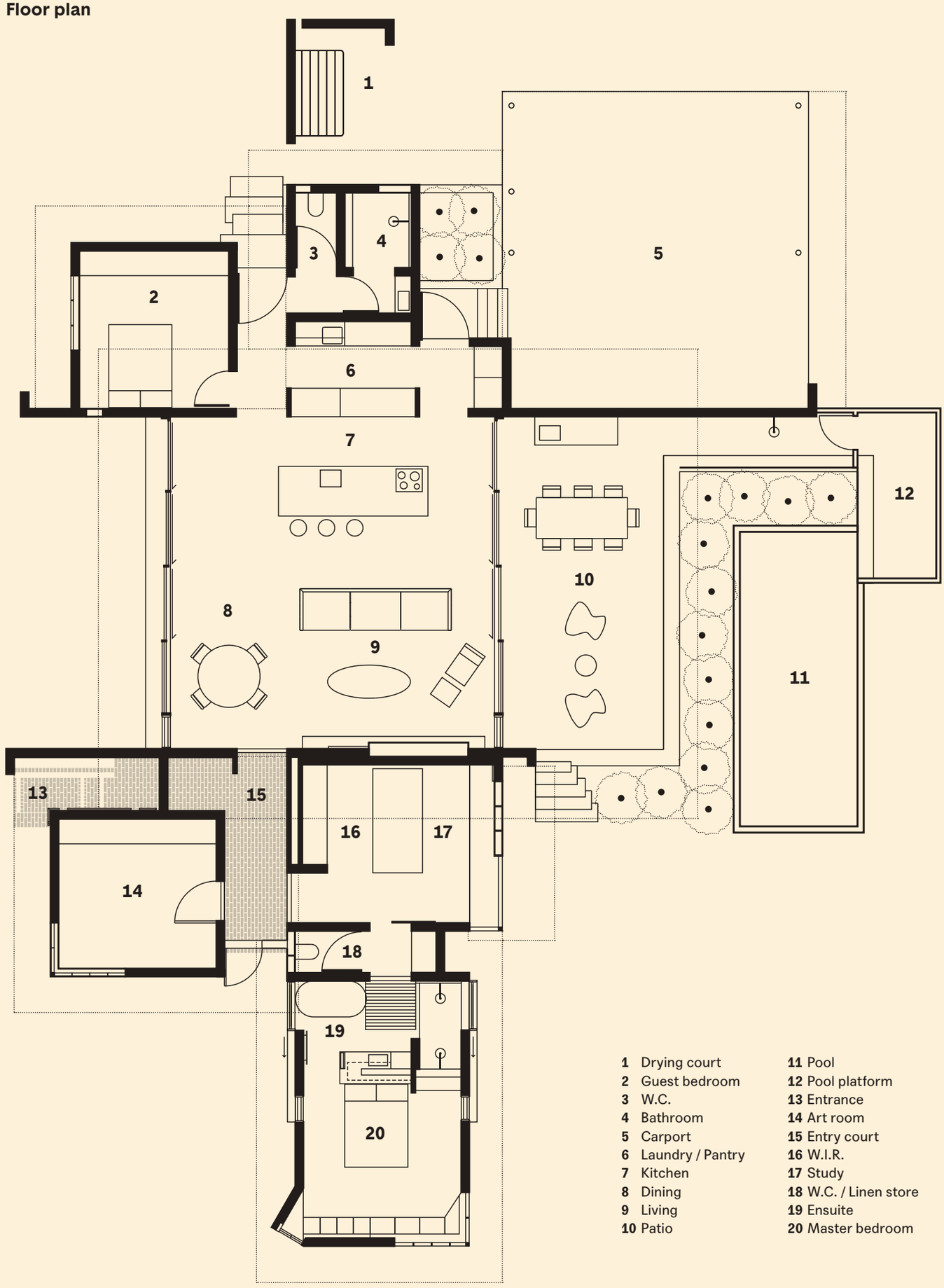
P.18—1 The house's single story, relatively open plan is flexible enough to accommodate its occupants' desires to age in place. **—2** The house is designed to be naturally cool when opened up, limiting the need for air conditioning.
P.19 The Inverdon house plan.



Floor plan



1	Drying court	**11**	Pool
2	Guest bedroom	**12**	Pool platform
3	W.C.	**13**	Entrance
4	Bathroom	**14**	Art room
5	Carport	**15**	Entry court
6	Laundry / Pantry	**16**	W.I.R.
7	Kitchen	**17**	Study
8	Dining	**18**	W.C. / Linen store
9	Living	**19**	Ensuite
10	Patio	**20**	Master bedroom

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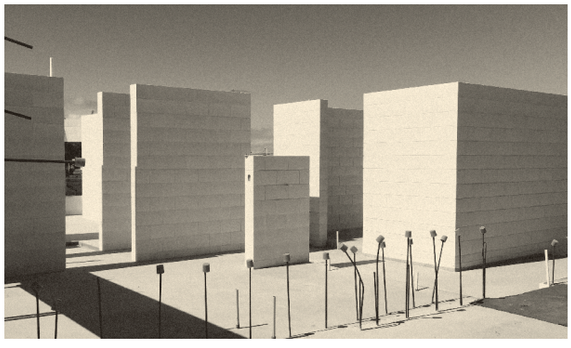
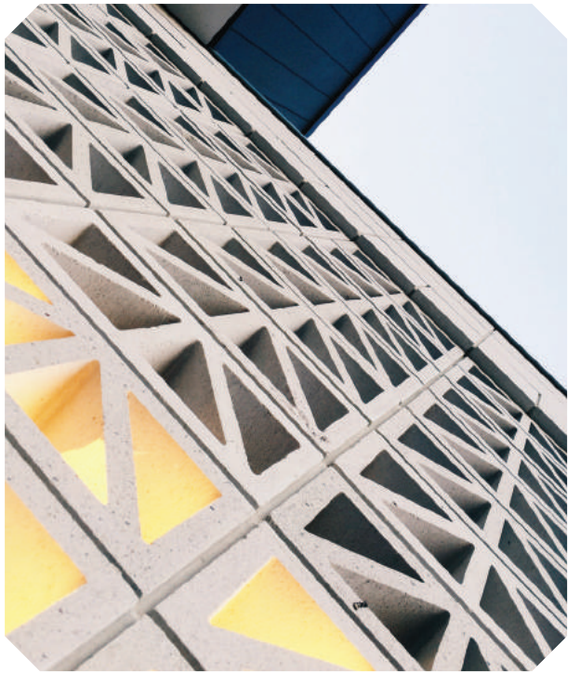
- Breeze block and block work are the big signatures of this project and, as a result, it's a significant nod to the North Queensland buildings of old.





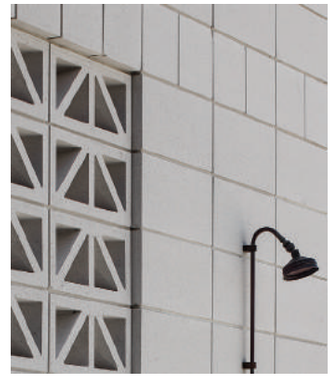
Rather, they sit inside static 21 degree homes with smart tellies rumbling for ambience. Suddenly, the houses in this part of the world stopped trying to work with the climate and they lost their regional style. This is something that this young architect is trying to address.

On the approach to Inverdon House, you snake through mango trees to park in a two-car carport that has a breeze block back wall. Breeze block and block work are the big signatures of this project and, as a result, it's a significant nod to the North Queensland buildings of old. Inverdon House echoes the caravan park shower blocks with tatty towels wedged into breeze block walls, the old Scout halls with outdated graffiti and the simple, economical homes of the mid-century.

The house revolves around an open plan kitchen/living/dining room, which is flanked by expansive glass sliding doors on either side. One opens up to the front garden and the country road, the other to an outdoor eating and sitting area shaded by a large flat roof. This may look like a swanky-style outdoor room, but make no mistake it is a well-executed, damn good-looking verandah in disguise. Although both bedrooms are air conditioned, the rest of the house remains naturally cool when opened up and, because of this, it's an extremely pleasant building to be in.

The craftsmanship throughout the house is exceptional and Naughton has nothing but praise for her builder and his attention to detail. One of the biggest surprises of the build was the handiwork of her grandfather. When bespoke steel work was called for and then quickly dismissed due to the high cost, the old bushman put his hand up. Using skills he gained from years of mucking around making boats, he crafted aluminium to fashion a front door, decorative railings and the surround of the poured concrete kitchen bar. Not ready to down tools, he even knocked up the frame for the outdoor table, which is probably the most used piece of furniture in the house.

Much to her folks' dismay, their beloved Jason recliners had to be put away for the photo shoot. Nothing could be done, though, about the two large chest freezers sitting in front of the carport's breeze block wall. Both played havoc with the aesthetics of the house, as far as the young architect was concerned. To me, the chest freezers full of mango cheeks and a couple of cut-up cows help cement the house in its place. This is a rural home and its simplicity, modesty and considered design is utterly appropriate to its setting.



The clients for Inverdon House wanted a home they could easily maintain in retirement. To this end, architect Chloe Naughton specified a single, low maintenance material for much of the building's structure and finish, inside and out: Austral Masonry's GB range of concrete blocks. Naughton opted for the elegant tones of the GB Honed and Smooth Blocks in Porcelain, while the distinctive geometry of the GB Breeze Block adds personality to the exterior, but also assists with shade and ventilation. **For more information on the GB range, see page 93.**

P.20 The craftsmanship throughout the house is exceptional. As Tim Ross writes, the architect, Chloe Naughton, has nothing but praise for her builder and his attention to detail.


EVE

Making history

Article Trisha Croaker
Photography Peter Clarke

EVE APARTMENTS
Architects DKO Architecture
Type of project Residential
Location Erskineville, Sydney
Year of completion 2016

P.22 The Eve apartment complex spans an entire block in the Sydney suburb of Erskineville. It employs a number of formal and material strategies to respond respectfully to its context.

In an old Sydney suburb undergoing rapid change and densification, Eve Apartments by ***DKO Architecture*** has crafted a curvaceous, respectful nod to the city's past.

P.24 The double-vaulted brickwork entry on the south-western corner is used to celebrate arrival and procession in a manner more common to major public buildings.

Few Sydney suburbs, whatever their enduring charms and assets, can lay claim to a nickname. Erskineville, or Erko as it's more affectionately and commonly known, is one of the rare exceptions.

It's a moniker that underlines the old inner-city suburb's powerfully ingrained, long-held sense of Australian-ness, and its unique identity. Well established by the 1880s as a true-blue working class community, it was home to small Victorian workers' cottages and narrow-fronted row houses, accommodating brick makers, tanners and market gardeners, sitting cheek-by-jowl with industry, brick pits and tanneries.

[26]

Unflinchingly robust and proudly unpretentious for generations, it now faces change on an unprecedented scale. Within the coming decade, the suburb's 17-hectare Ashmore Precinct – one of the largest designated urban renewal sites in NSW – will become home to an additional 6000 residents. Few of the more recent additions to the area accommodate Erko's rich village character and history as thoughtfully as the distinctive Eve Apartments by DKO Architecture and developers Fridcorp.

Like much of the regeneration zone, Eve is set on almost-level land, sitting in a one-in-100-year flood affected area 7.5 metres above sea level (presenting considerable challenges for basement parking).

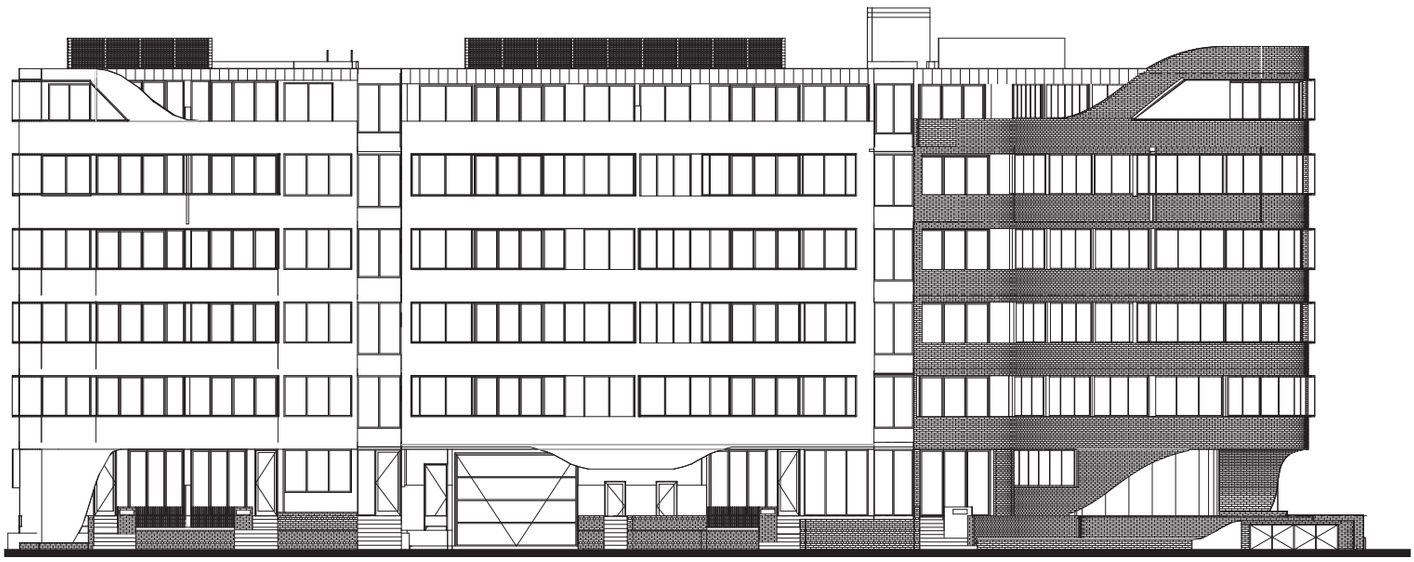
Occupying an entire block, it comes edged by three streets (including busy MacDonald Street) and a smaller laneway to the north, sitting within a transitional area divided by the train line and rail overpass – industrial areas one side, finer grain small-lot residential areas the other, along with existing new and under-construction multi-residential developments on every elevation.

Immediately apparent is the designers' commitment to respond intelligently and sensitively to this challenging location and urban context. The building's separated and staggered form, its sinuously curved 'front door', the use on all elevations of New York-style stoops to activate the public domain, and joyous highlighting of brickwork and other industrial materials all speak articulately and respectfully of the area's history, while presenting a unique offering for contemporary living.

DKO has used two L-shaped forms raised above street level (mitigating any flood-related issues) wrapped around a central courtyard to accommodate 197 one-, two- and three-bedroom apartments. One six-level form hugs the south and west-facing street frontages and accommodates the grand entrance, the other the north- and east-facing sides.

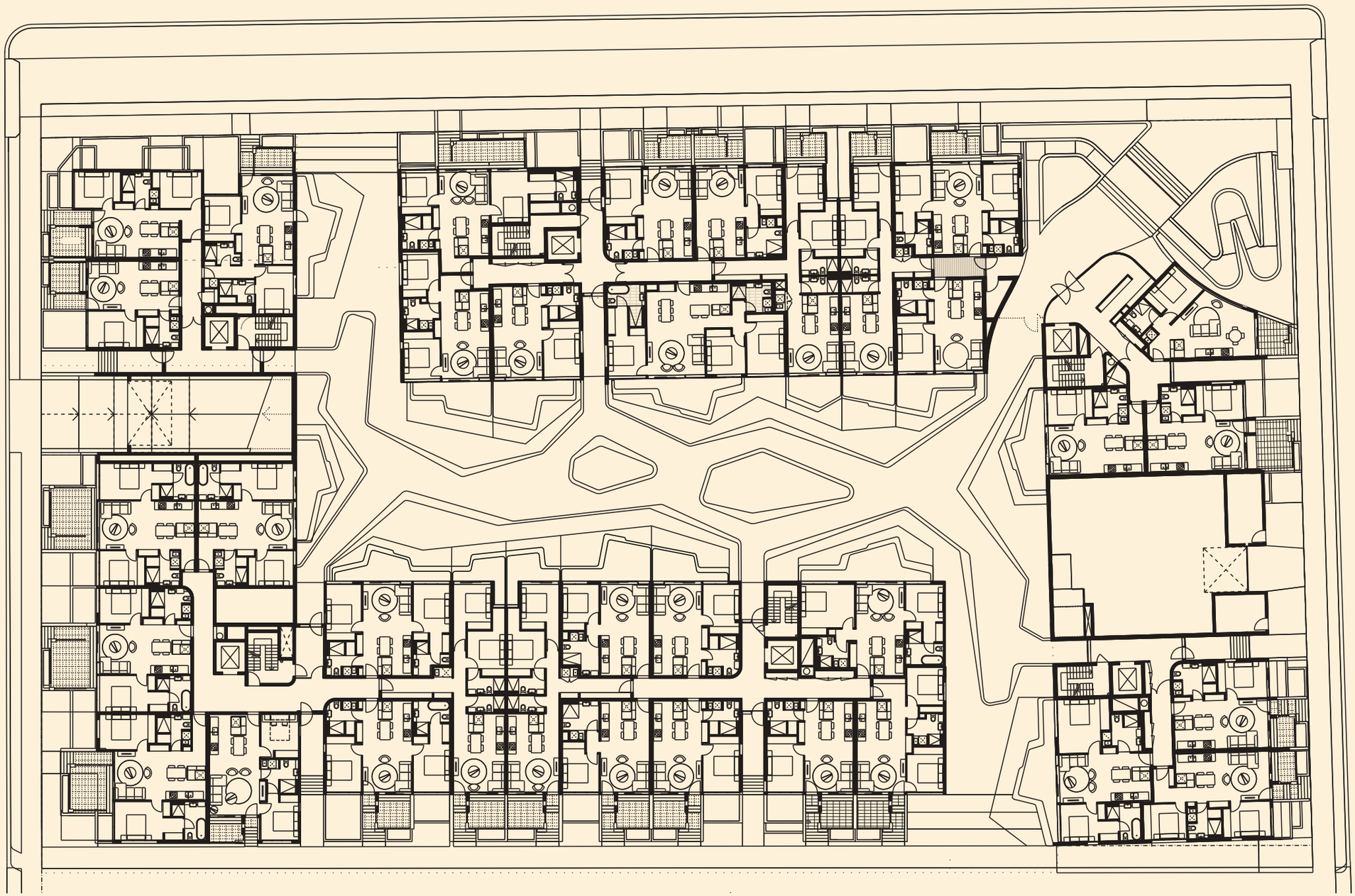
Separating both are two visual and physical breaks to the north and south – creating transparency, street activation and a reduction in the buildings' mass. Seven glass-sided lift cores are strategically positioned to the same effect.

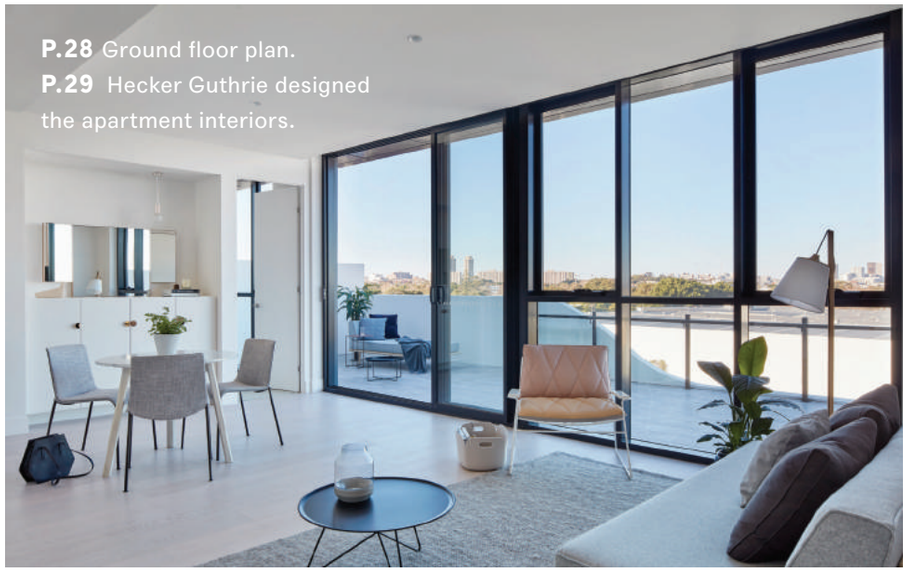
The north-facing block (topped with a lush accessible rooftop garden and deck courtesy of 360 Degrees Landscape Architects) is kept sympathetically to three levels, maximising solar penetration to all apartments and a central courtyard while providing a resort-style fifth facade for the enjoyment of residents.



The joyous highlighting of brickwork and other industrial materials speaks articulately and respectfully of the area's history.

P.26 The building's southern elevation, with the vaulted 'front door' described at right.
P.27 New York-style stoops help activate the public areas of the development, while raising the dwellings above a one-in-100-year floodline.





P.28 Ground floor plan.
P.29 Hecker Guthrie designed the apartment interiors.

Externally, DKO has used a simple palette of materials to celebrate the industrial iconography of the area's past – Bowral Blue bricks to anchor the building and define its perimeter, a cream Spanish brick to elevate it, copper for highlights, and pre-cast concrete in-between – all materials offering a good contextual fit, durability and a sense of urbanity.

Most striking of all is the delightful use of brickwork at key moments, particularly on the building's corners and the gracefully curved six-level sculptural entrance facing Eve and MacDonald Streets – the complex's celebrated facade and defining feature.

This south-western corner is used to celebrate arrival and procession in a manner more common to major public buildings, without any loss of residential intimacy. Arrival is via a wide set of stairs into a generous entry foyer defined by dramatically swooping curves and double-height, double-vaulted brickwork arches, curved glass and brick columns.

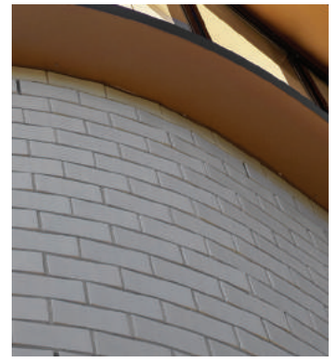
Both bricks and curves are used in a powerfully contemporary way to speak evocatively and unequivocally of Erskineville's past – of its simple yet beautiful railway arches and viaduct-like railway bridges (located a mere block away), the nearby iconic Sydney Park brick pit chimneys and kilns and the architecture of many of the area's well-established old hotels.

Internally, design practice Hecker Guthrie has used a simple palette of high-end materials in keeping with Fridcorp's commitment to 'luxury amenity': Corian benchtops and baths, American oak floors, rose gold tapware, and bespoke mirrors in all apartments.

Landscaping has been carefully integrated to create a sense of a green retreat in the heart of the city. The central courtyard draws landscape into the buildings both vertically and horizontally. Vertical gardens push skyward from one courtyard-facing cantilevered balcony to the next, with all courtyard-facing elevations eventually becoming one large hanging garden. Externally, all stoops feature plantings and spaces for solo or communal gathering, with trees planted to further green the public domain.

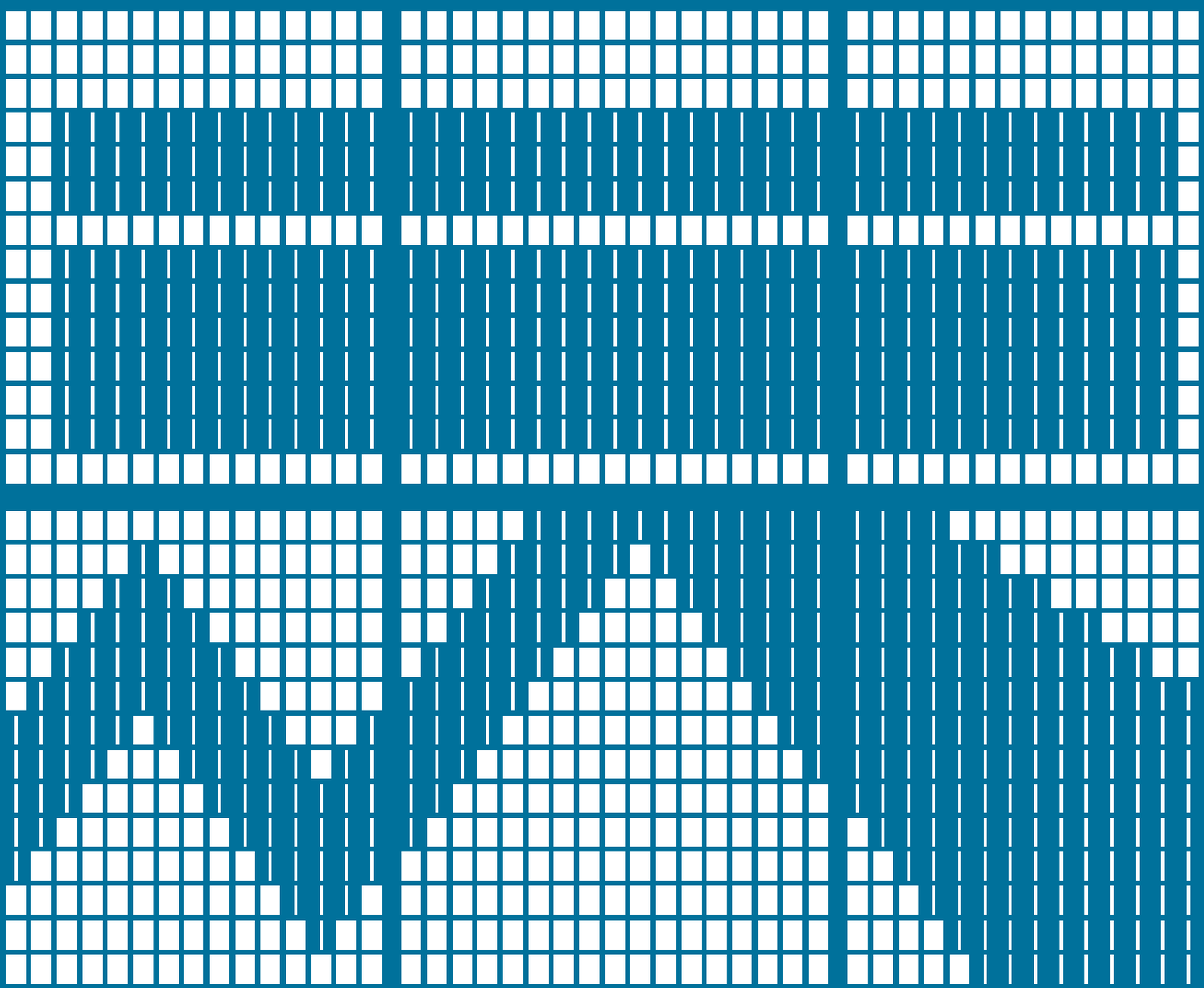
To paraphrase the designers' words, through judicious material selection and well considered form, this building has preserved those qualities that give identity to Erskineville, while deftly responding to the needs of a new generation.

In a nod to Erskineville's industrial heritage and its former brick pits, DKO Architecture made extensive use of brickwork in Bowral Blue and La Paloma bricks throughout the Eve apartment complex. Key moments of expressive brick use include the building's corners and the gracefully curved six-level sculptural entrance facing Eve and MacDonald Streets. **For more information on Austral Bricks' La Paloma or Bowral ranges see pages 91-92.**



Artful preservation

Article Veronica Ng
Photography H. Lin Ho



CLAY ROOF HOUSE
Architects DRTAN LM Architect
Type of project Residential
Location Petaling Jaya, Malaysia
Year of completion 2015

P.30 A lattice of hit-and-miss clay brickwork on an exterior wall brings an expressive, crafted quality to the building's exterior.

DRTAN LM Architect finds a striking and ingenious application for the humble roof tile that saves on waste, reduces building costs and staves off excessive air-conditioning.

Dr Tan Loke Mun, principal for DRTAN LM Architect, has an affinity for vintage materials, which is clear in his Clay Roof House in Section 11, a mature suburb in Petaling Jaya, Malaysia. A three-storey cube wrapped in a *brise soleil* (sunscreen) of repurposed terracotta clay tiles, the house turns material that might otherwise have been discarded into what its owner describes as 'a work of art'.

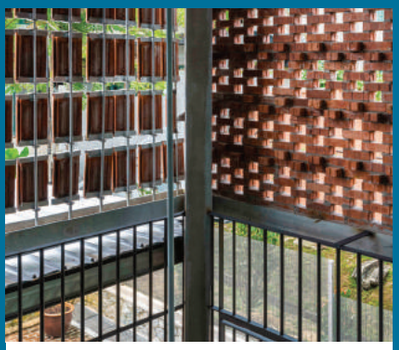
The Clay Roof House has a simple cubic form, but, as Tan says, it is the product of many constraints. The client's brief called for a bright and airy dwelling for a small family of three. The design pushes beyond simply satisfying this requirement, though, to achieve a synergy between the green architecture principles of recycling and passive cooling, and a modernist ethos.

One of the design challenges for the Clay Roof House was its west-facing entrance, which required shading from the evening sun and heat. Besides a heavily insulated roof to reduce heat gain, an initial idea for metal louvres as a screening device was not feasible due to constraints in budget.

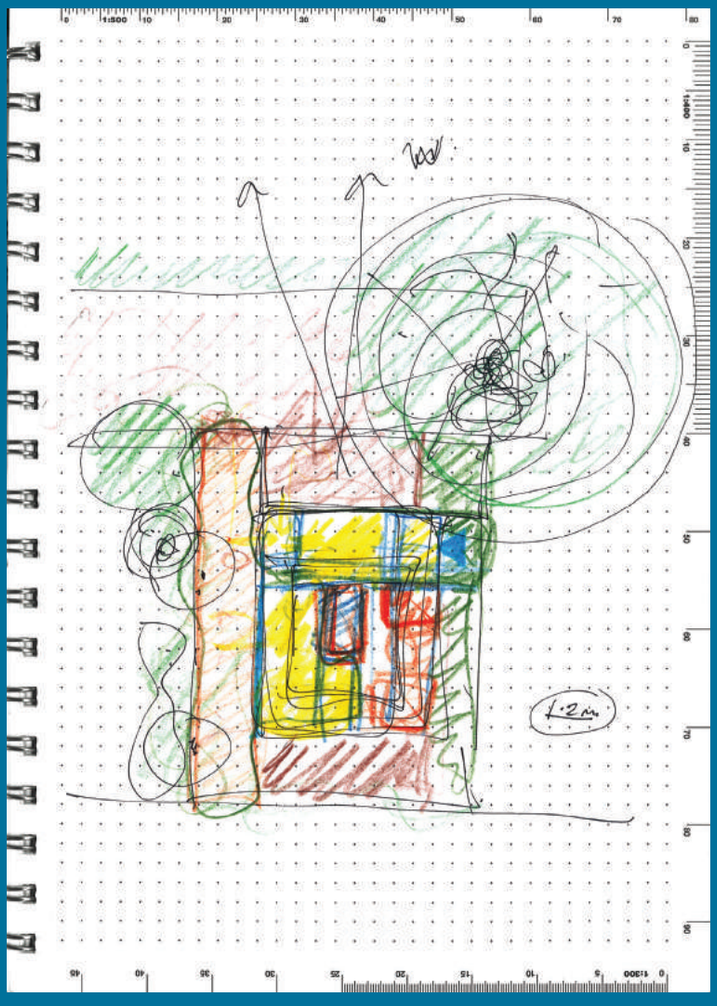
Fortunately, Tan was enamoured by the beauty and patina of the terracotta clay tiles on the roof of the original house. The tiles were removed and stored when the house was demolished. Using common construction principles, Tan then designed a screen made of the strung clay tiles clamped to steel rods. The rods were lifted and hooked on a supporting I-beam, giving them new life as a sunshade.

This terracotta tile *brise soleil* also acts as a 'living' screen, wherein each tile can be pivoted to channel prevailing wind. The gap between the tile screen and the glazing at the west-facing frontage allows heat gain to be mitigated. The design provides for a comfortable temperature and diffused and filtered light internally, and a sense of mystery and curiosity externally.

The north, south and east facades are composed of lattice clay brick work and glazing, and the interplay between these elements and the tiles creates a container for privacy, as well as openness. While the west is screened from the street, both the northwest and south facades open to existing mature vegetation, providing a strong visual connection to the outside. The south facade, adjacent to the dining space, looks out on tropical fruit trees that line the side of the house. As the building footprint has maximised the requisite boundary setback of 10 feet, this opens up an otherwise tight side path. A patio is set into the southwest corner, which faces a Neem tree at the exterior, adorned with a triangular-shaped fishpond.

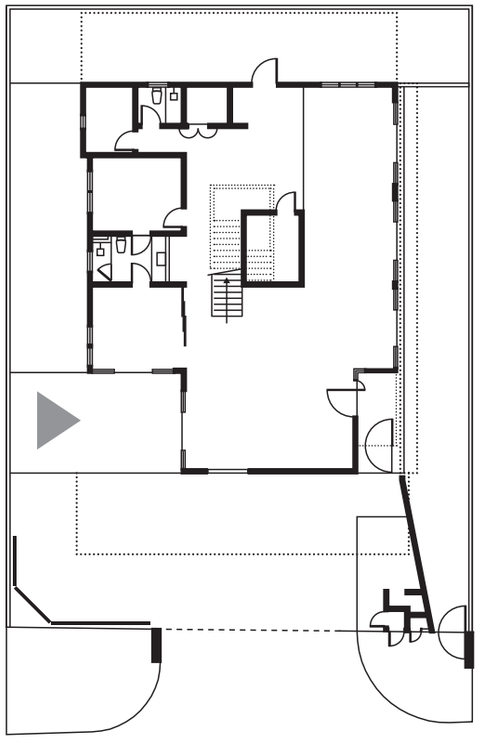


P.32 The western elevation of the house is graced by an operable screen of recycled roof tiles, which provides solar protection while allowing light to enter the building.
P.33 The gap between the tile screen and the glazing on the west-facing frontage allows heat gain from the sun to be mitigated.

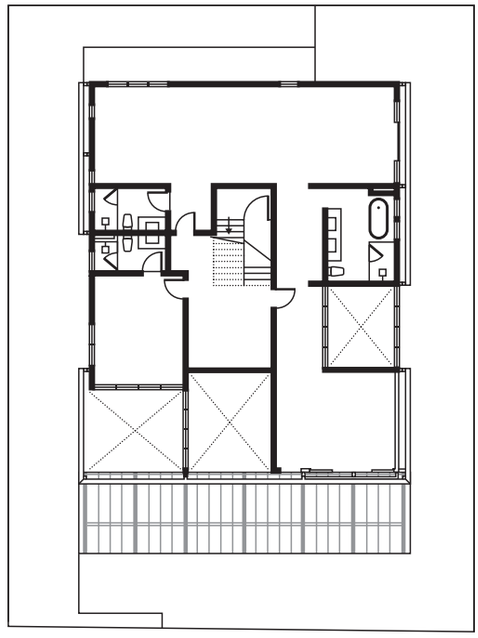


P.34—1 The stairwell forms a kind of chimney: fans above the stairwell help draw heat out of the building **—2** The hit-and-miss brickwork. allows for both privacy and porosity. **—3** Conceptual sketch, describing the building's spatial strategy in plan.

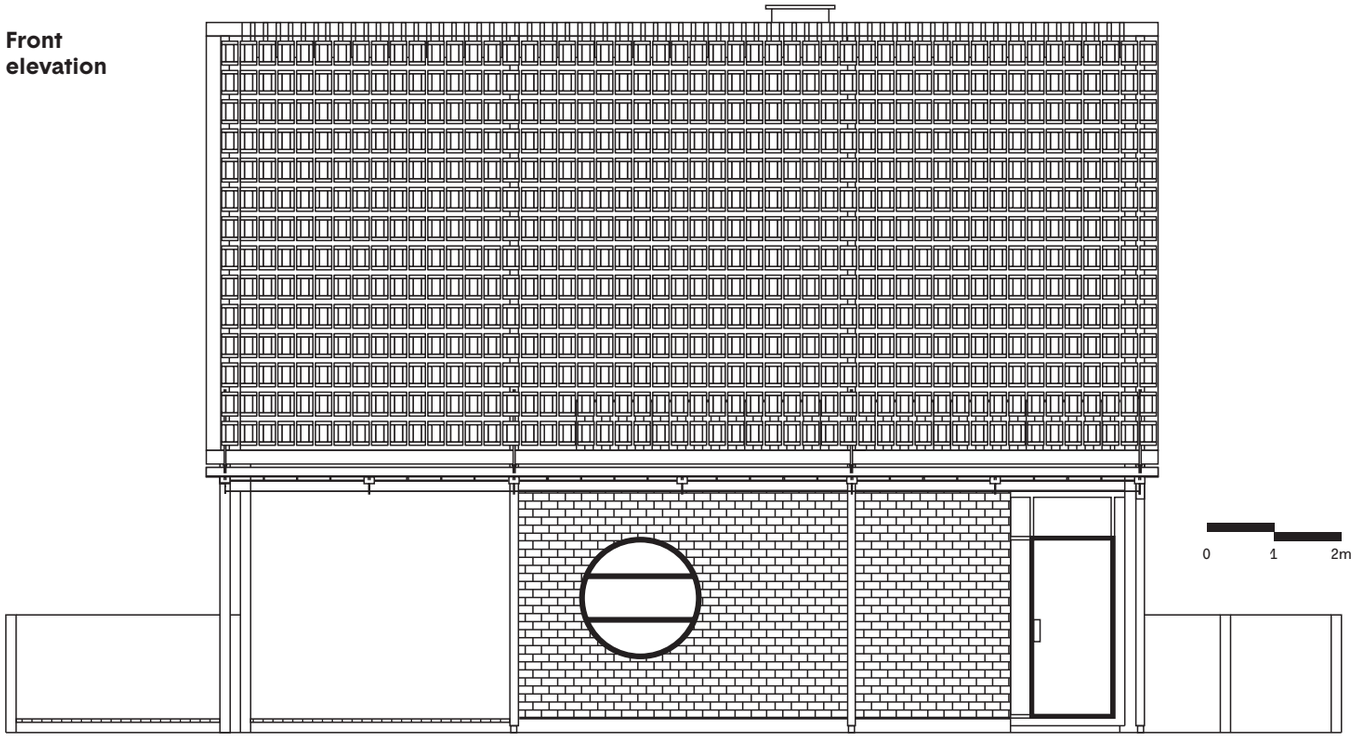
Ground floor



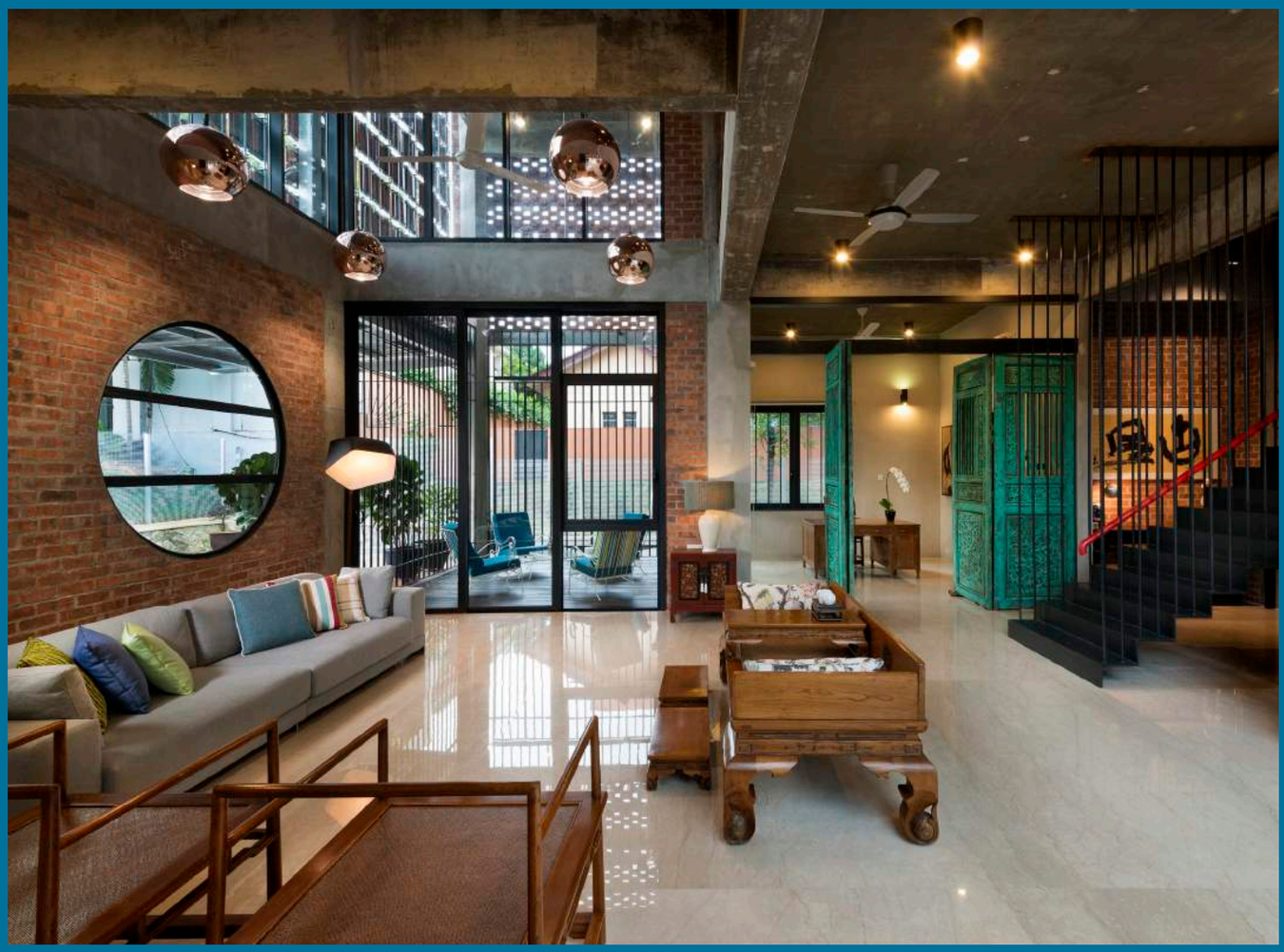
First floor



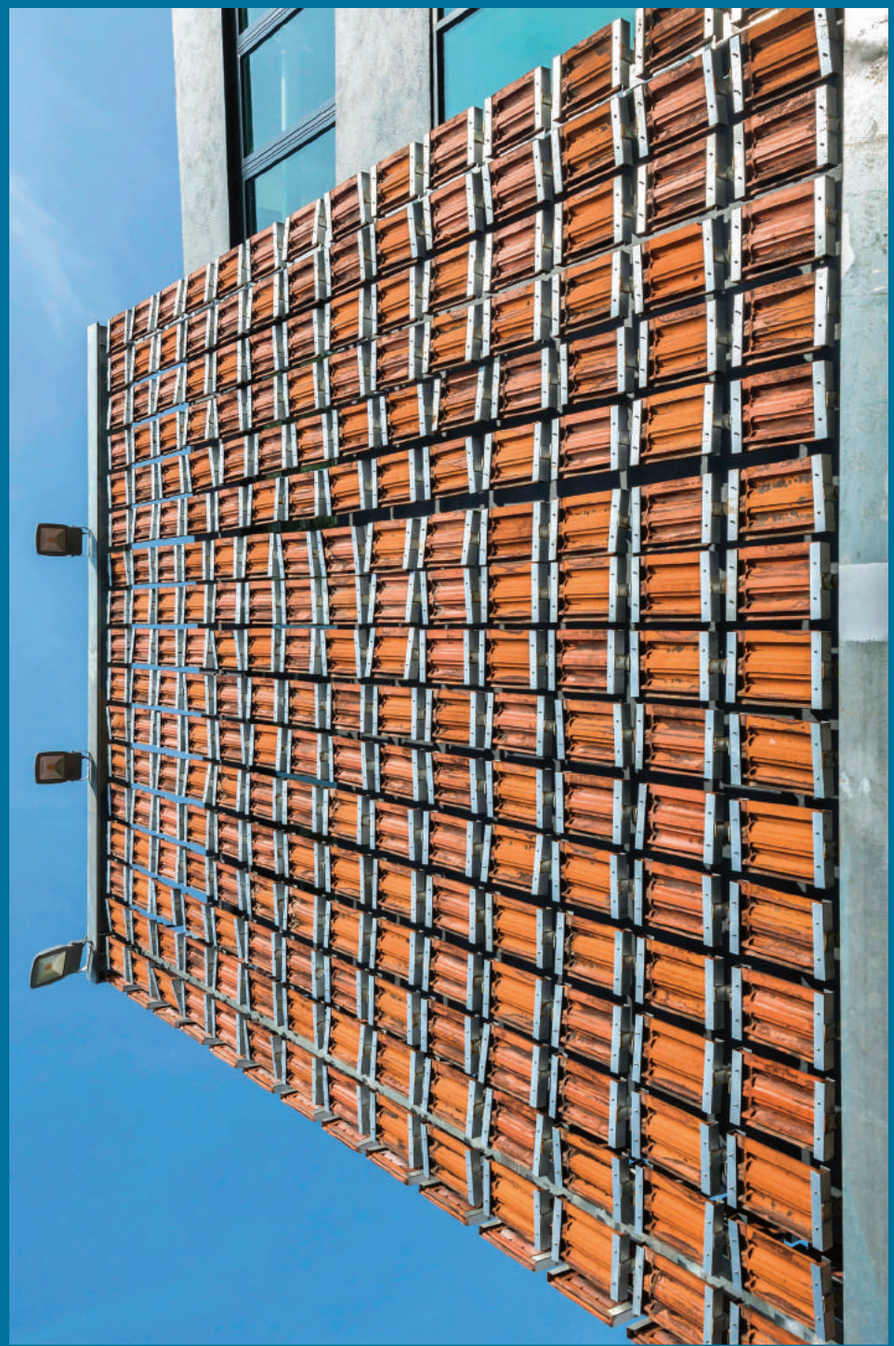
Front elevation

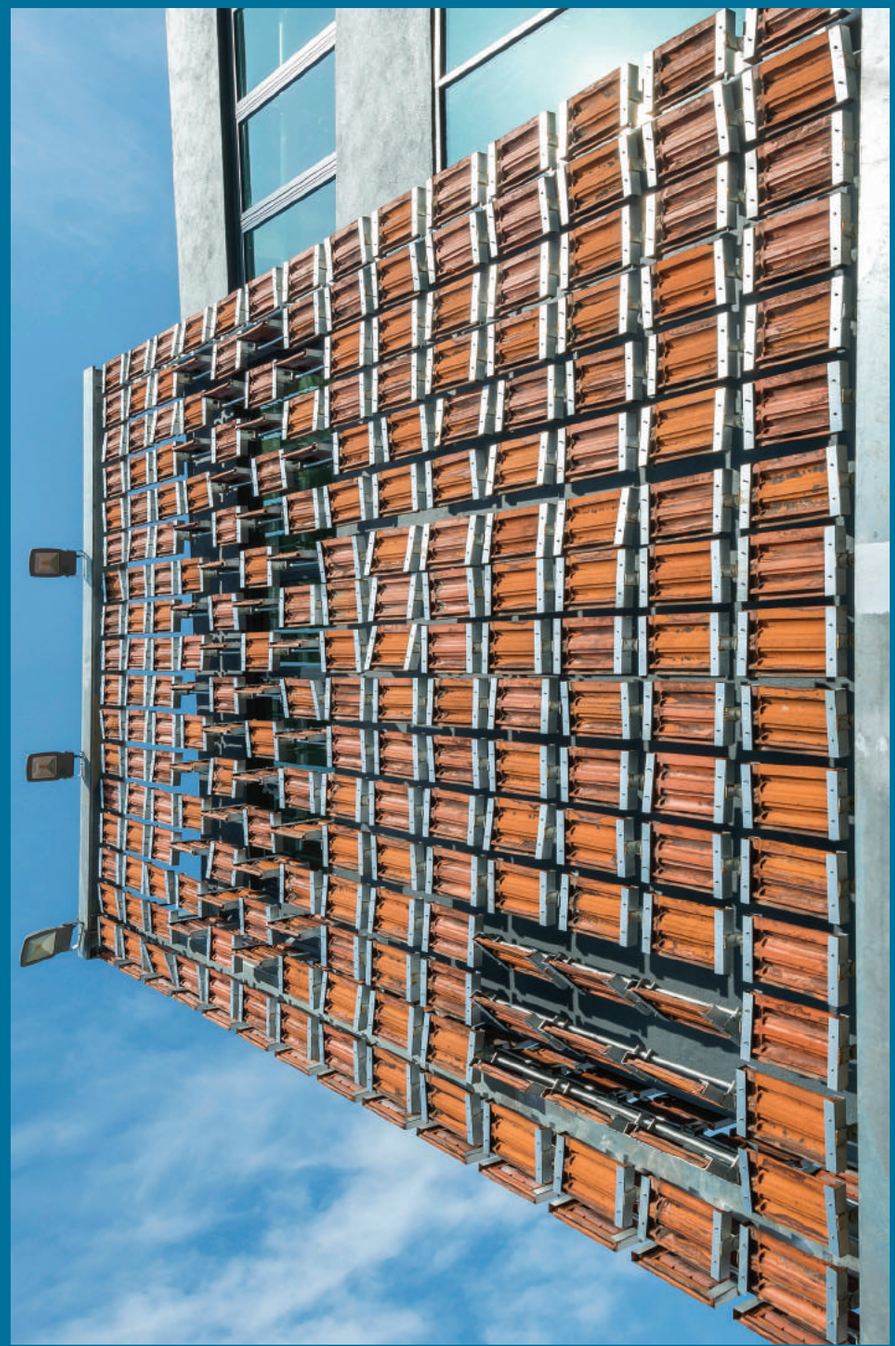


- The house both redefines our understanding of what a tropical house can be and reimagines the standard contemporary residential cube.



P.36 The south facade looks out on tropical fruit trees that line the side of the house. As the building footprint has maximised the requisite boundary setback of 10 feet, this opens up an otherwise tight space. **P.37—1** A suspended stairway is visible through a circular opening at the western entry, drawing the eye into the interior. **—2** An expansive space spanning the dining, living and patio areas showcases an eclectic mix of mid-century furniture, raw materials, vast apertures and simple geometric forms.





P.22 The tiles of the sunscreen can be pivoted to channel the prevailing wind. **P.23** The architect recycled the terracotta clay roof tiles of the original house for the sunscreen.

● ● ●

While the building wears an unusual, albeit purposeful, clay tile screen on its exterior, the spatial configuration of the house is simple. The front of the house is screened from the street, with an unassuming entrance. The foyer opens to an expansive space, spanning dining, living and patio areas. It showcases an eclectic mix of mid-century furniture, raw materials, vast apertures and the use of simple geometric forms.

A suspended stairway is visible through a circular opening that pierces the wall, drawing the eye into the interior with an intriguing glimpse of this central feature of the house. Vertically, the stairwell forms a kind of chimney, drawing heat out of the building through extractor fans positioned above it.

The stairway is suspended and positioned in the middle of the house to reduce circulation space, with spaces wrapped around it. The stairs link the bedrooms on the first floor and an open-plan second floor that is used to store rainwater harvesting tanks.

The Clay Roof House both redefines our understanding of what a tropical house can be and reimagines the standard contemporary residential cube. While DRTAN LM Architect should be commended for taking a different path, the client's faith in the design process should also be acknowledged. It takes a particular mindset to recognise the potential of 1970s clay tiles for this unusual application and with their brave client's support DRTAN LM Architect has repurposed this otherwise unassuming material into something truly extraordinary. ●

When DRTAN LM Architect's initial plan to protect this building from western sun with a screen of metal louvres proved too costly, the practice hit upon an ingenious alternative. Struck by the beauty of the terracotta tiles on the roof of the previous building on site, they saved them from demolition and designed a screen made of the clay tiles clamped to steel rods. The rods were then lifted and hooked on a supporting I-beam, giving them new life as a sun-shade. **Bristile Roofing's La Escandella range has been manufactured and tested to withstand and protect against diverse weather conditions. For more information, see page 95.**

Urban edge

Article Stuart Harrison
Photography
Salty Wings, Douglas Mark Black Photography

CITY BEACH SURF LIFE SAVING CLUB
Architects Christou
Type of project Surf life saving club
Location Perth, Western Australia
Year of completion 2016

P.40 Architects Christou used carefully detailed precast concrete to create a surf life-saving building with a grand civic presence for Perth's City Beach.

Christou Architects bring the grand public architecture and generous civic spaces of the city to the beach in a new surf lifesaving club in Perth.

P.42 The lookout, a moment of verticality in an otherwise largely horizontal building, recalls clocktowers in traditional public squares.
P.43 Publicly accessible, the lookout allows people to enjoy sweeping views out to the water and up the seemingly endless beach.

Perth's beaches are places of stark colour – big blue skies, endless light sand. Making a sincere public architecture here isn't easy, as most urban strategies don't apply. Building on the beach doesn't even happen that often. City Beach Lifesaving Club re-states the publicness of this kind of building. It also takes a material often used in generic situations, simple pre-cast concrete, and, through careful consideration and detailing, elevates it to an appropriately significant expression for this location.

City Beach has seen some adventures in concrete before. Toilet and change rooms designed by Forbes and Fitzhardinge back in 1970 still nestle into the bright sand of this expansive beach. Made with fluid in-situ concrete walls (now oddly painted) these 70s classics sit only metres away from the beach's new Surf Life-saving Club designed by local architects, Christou.

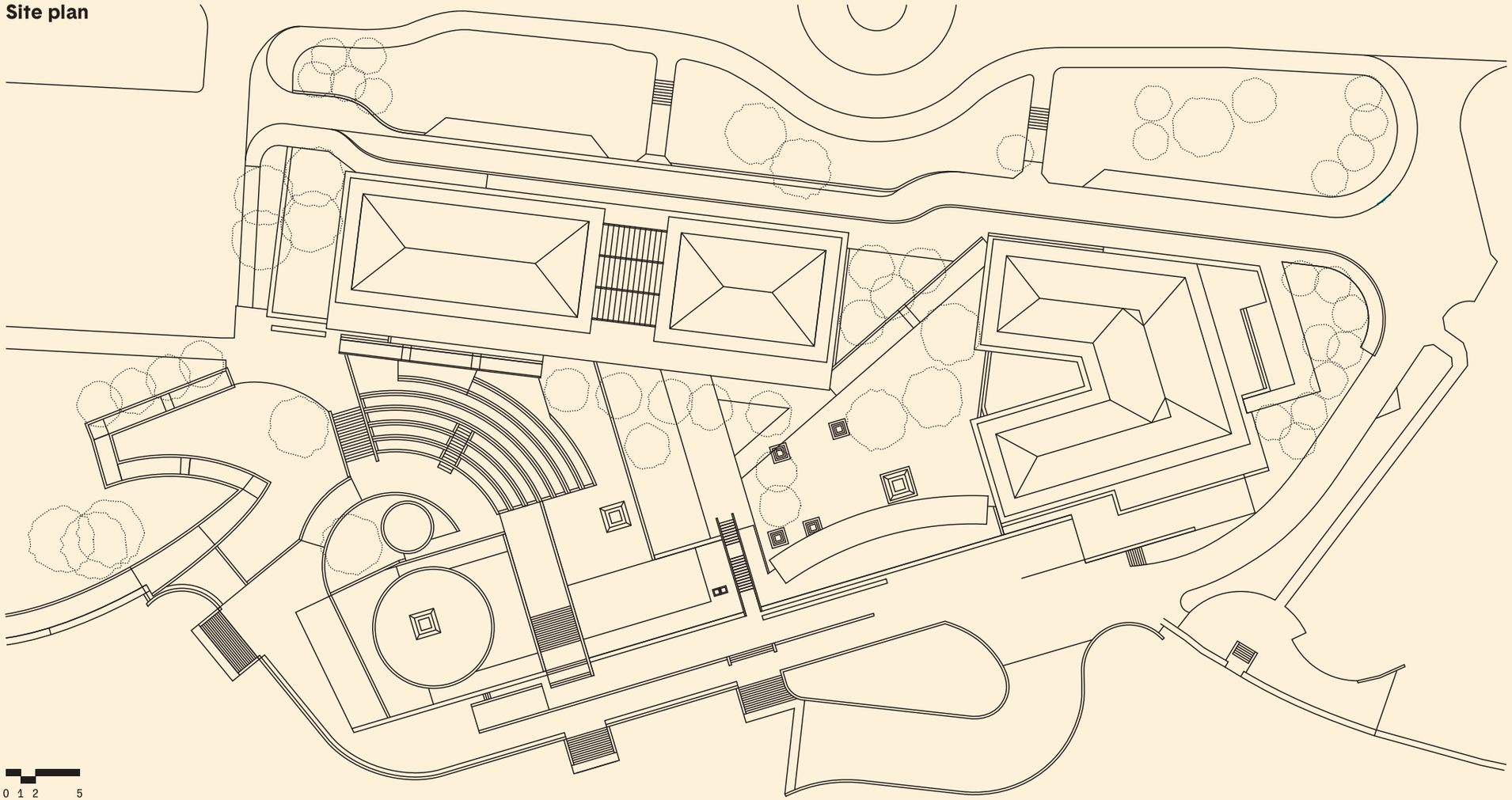
The new building is an essay in precast concrete – big panels used to create simple, robust and monumental public architecture that recalls practice founder James Christou's earliest public work, the City of Bayswater Offices (Christou and Vuko 1982). Both the new City Beach Lifesaving Club and the Bayswater Offices use abstracted forms and large glazed portal ends to make a strong resonant public architecture – one located in the legacy of modernity.

Here at City Beach, the big portal glazed end is set at a well-considered angle so it is viewable from the northern approach and from the beach itself, which, as always over here, sits to the west.

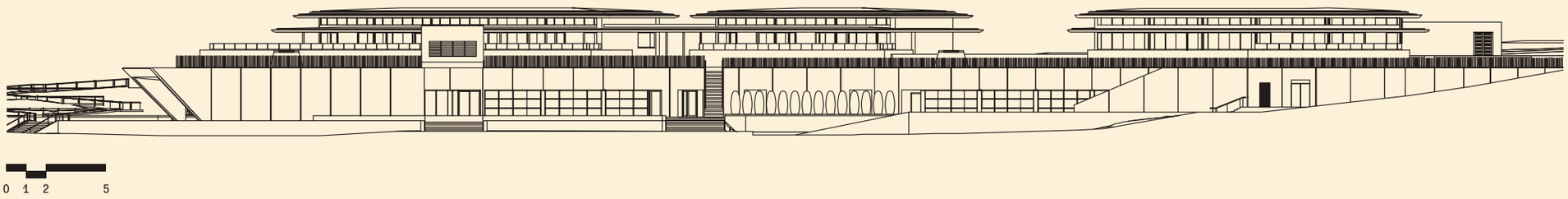
There are two main types of buildings – the white concrete surf lifesaving club at beach level (with a function space in it) and commercial buildings for mainly food and beverage retail along the eastern edge, slightly above the club building. These two types splay out in plan towards the northern end to create an amphitheatre between them, but merge on the southern edge, one sitting above the other.

The architectural language of the two buildings is clearly different – the singular, white, raking forms of the club sit against the articulated stone and glazed pavilion aesthetic of the commercial offerings. This is a type of material inversion – instead of the public building being clad in stone while the retail building is built in painted precast, as you might have expected, it's the other way around. The singularity of the surf lifesaving club's monumental form is made possible through the use of white joints between the large, white precast panels, making the individual panels harder to pick.

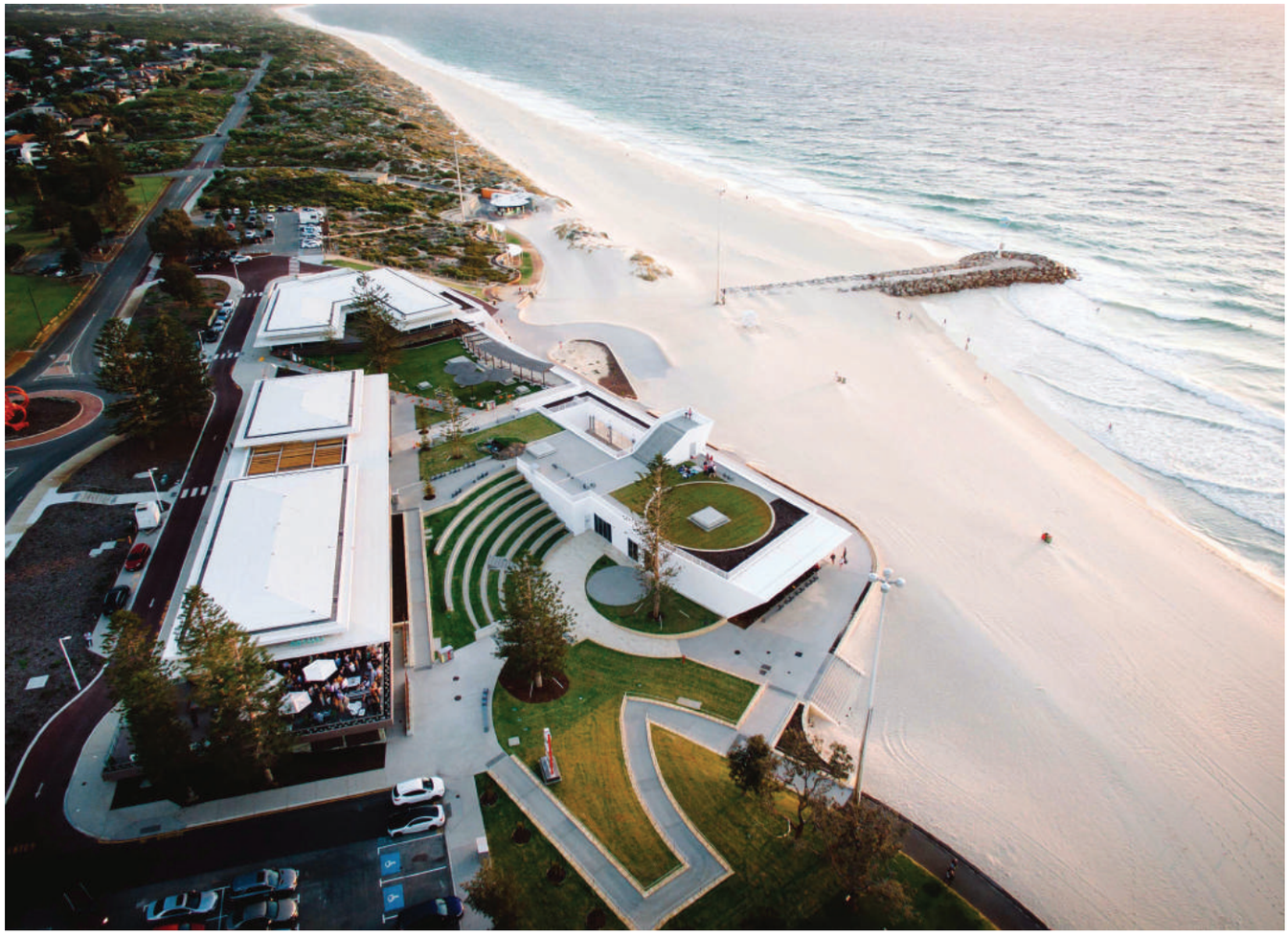
Site plan



Western elevation



The new building is an essay in precast concrete – big panels used to create simple, robust and monumental public architecture...



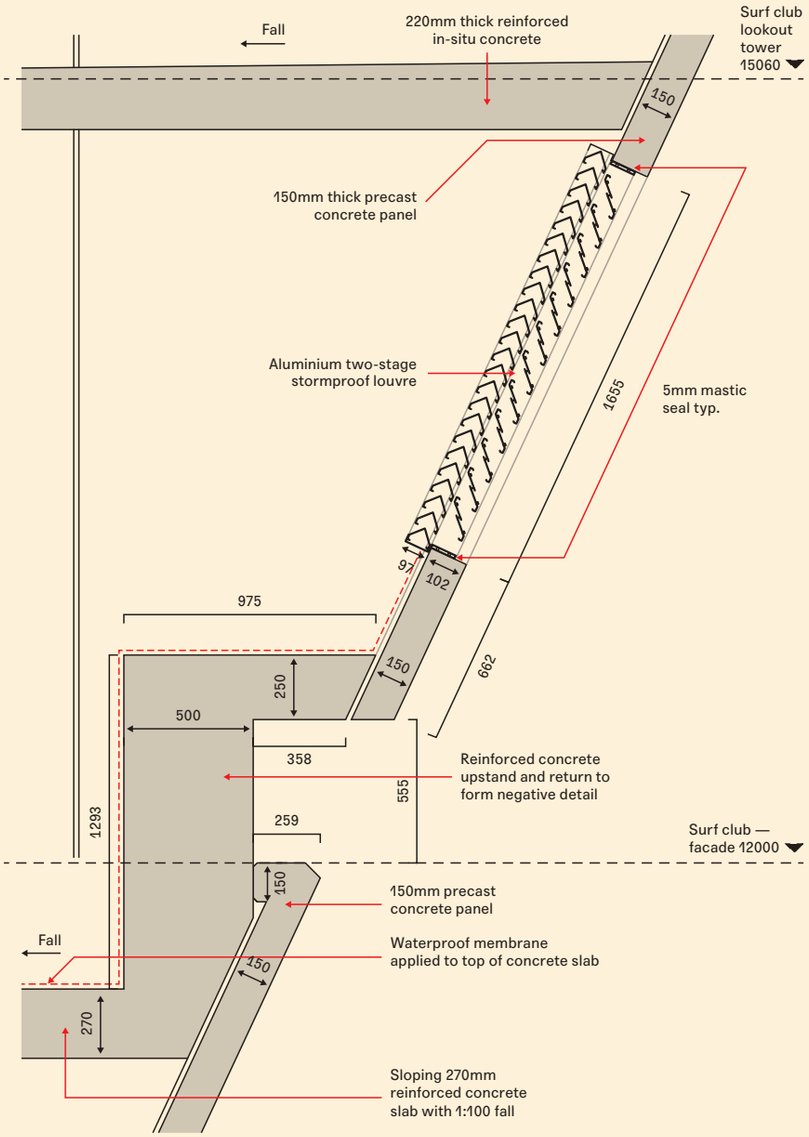
On approach from the east, however, the new club building is mostly invisible – acting in part as a giant retaining wall filled with program. Here, the open stone and glass commercial pavilions feature gaps between them, to encourage movement toward and ultimately through (or onto) the surf live saving club proper. Stone clad steps form a wide, generous link to the club, semi-covered in timber beams, a journey across the site from high level to the sand, ultimately passing through a narrow set of stone steps that cut through the white form.

Sitting atop the club is a public plaza. With grass, trees and paving, it's a plateau for public use. It's hard not to be reminded of Parliament House, Canberra, where the public used to be able to walk all over the building – a right lost in a more paranoid and less public-minded times. Here at City Beach, the plaza features another, smaller, amphitheatre – a set of steps onto a viewing platform to take in the expanse of Perth's endless beach. This viewing platform is a little tower that hides a mechanical plant room.

P.44 Site plan and elevation.
P.45 Sitting atop the club is a public plaza, with grass, trees and paving.

P.46—1 A huge glazed portal end is set so it is viewable from the northern approach, allowing views into the building from the beach and vice versa.
—2 The building volumes splay out towards the northern end to create a sheltered amphitheatre.

Section detail — Tower

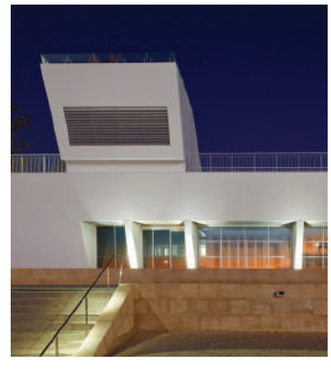


Christou designed the City Beach Surf Life Saving Club to read as a monumental raking form from the beach. The beachside building is predominantly made from Austral's Solid Wall precast concrete panels in white. The singularity of the surf lifesaving club's form is made possible by using white joints, which make the individual panels harder to pick. The panels are a hardwearing material perfectly suited to the exposed beach environment and can be used as both structure and façade. **For more information on Austral's Solid Wall panel, see page 92.**

On the beach side, the tower leans out over the front of the raking facade. Like a clock tower on a classical building, this is a moment of verticality in a generally horizontal building, a memory of public architecture in a different context.

Surrounding the elevated areas is a white painted steel balustrade – this feathers the building's edge, a far better solution than a solid balustrade would have been. It's these kind of decisions in detailing, along with the gutsy raking walls, that elevate the precast concrete into a suitably civic material. Under the roof within the club building are a series of rooms, opening occasionally onto the beach. The main uses of the lifesaving club building are (running north to south), a public gym, function room, toilets and change areas and the club's room for equipment and boats.

The club building's singularity is strong enough to have bits subtracted from it. On the main, raking western facade the changing rooms entries make a series of these subtractions, forming a loggia. Behind the changing rooms is a wind protected courtyard – a space for events, parties and the like to spill from inside out, framing a view of the endless beach.



Shadow play

WINFIELD ROAD
Architects Matyas Architects
Type of project Residential
Location Balwyn North, Victoria, Australia
Year of completion 2016

Article Ben G Morgan
Photography Tatjana Plitt

P.49 The architects developed a geometric brick pattern that would add depth, light and shade to the front façade.

Matyas Architects sets light and shade against one another, in an intricate, finely crafted exploration of brick's expressive potential.

The brief to *Matyas Architects*' was simple: design a four-bedroom home for a young family of three in Balwyn North. As it turned out, though, the site for this seemingly straightforward commission offered more than enough challenge and opportunity to keep things interesting for the practice.

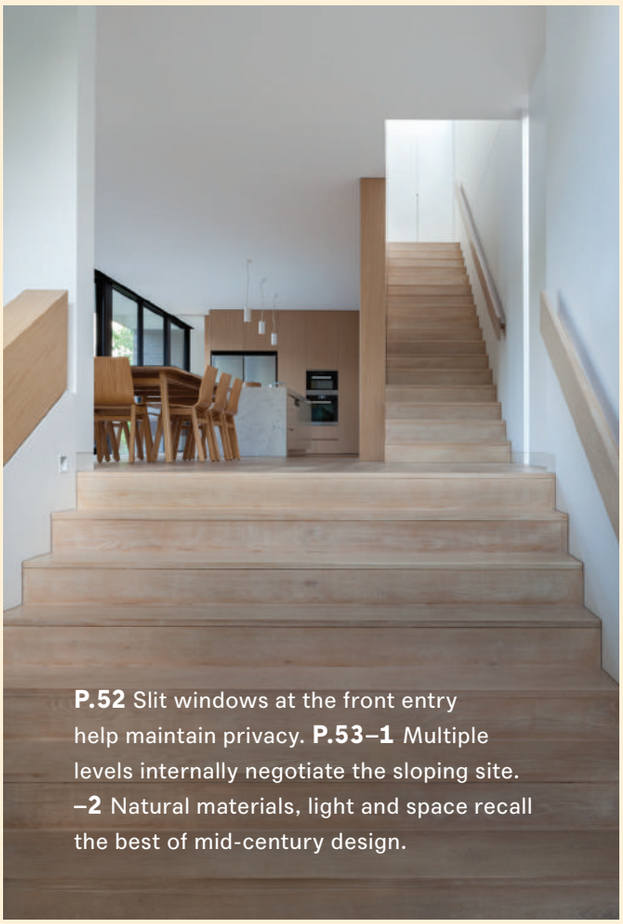
'We were approached to design a practical, well-functioning family home on a smaller-than-average block, at 445-square-metres,' John Matyas, the practice director, explains. The clients were also fans of mid-century modern design and were looking to capture something similar in the house. 'I took this to mean that they wanted plenty of natural light, a sense of openness and clean lines.'

This sensible but fairly standard design solution soon came up against some tricky site conditions, though. As the last vacant site on the street, it was already surrounded by large, two-storey brick villas. 'There were overlooking issues on three sides of the site, it was also an east-west orientation, which was less than ideal and the block had a relatively steep incline sloping from front to back', Matyas says.

These restrictions called for a more inventive approach, including the creation of a sub-basement level (with garage and rumpus room), screening, strategic window placement and planting to solve the privacy issues. Matyas oriented the indoor and outdoor spaces to the north by using a system of portal frames that support mesh screening for green planting. The green screening would provide privacy, while maintaining access to northern light and sun. To make a user-friendly outdoor space that coped with the slope of the land, Matyas then added a large elevated deck.

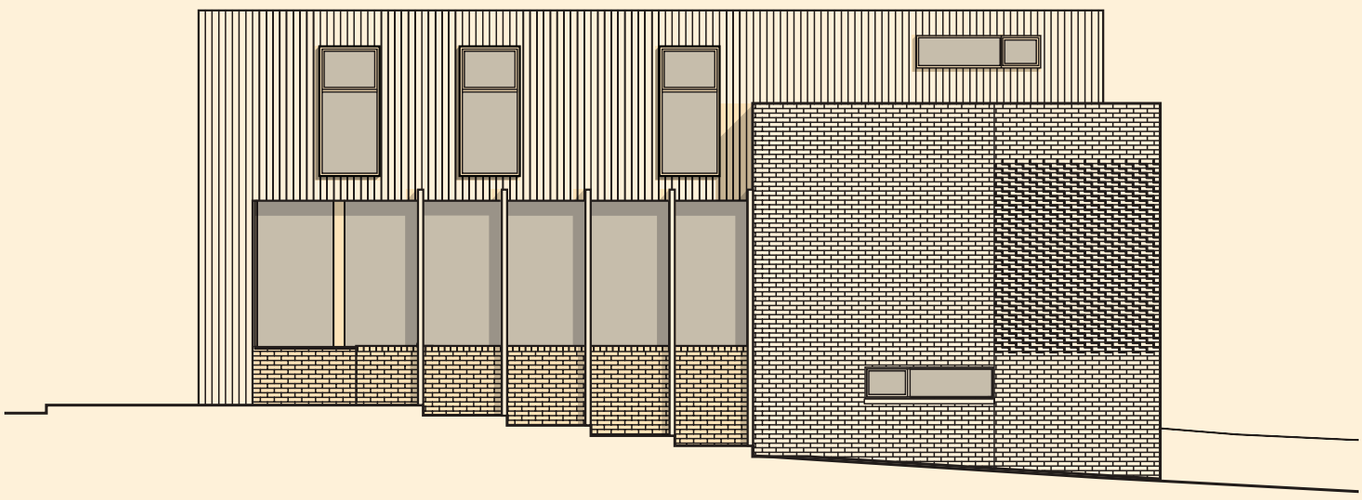
While the house has a modest scale relative to its context, these solutions have given it a certain monumentality. Matyas wanted the building to have both presence and personality. In the documentation stage, Matyas developed a geometric pattern for a section of bricks on the front façade, folding around the side of the building. 'We wanted a textured surface with the brickwork,' he explains. 'We explored various patterns of bricklaying to achieve depth, light and shade.'

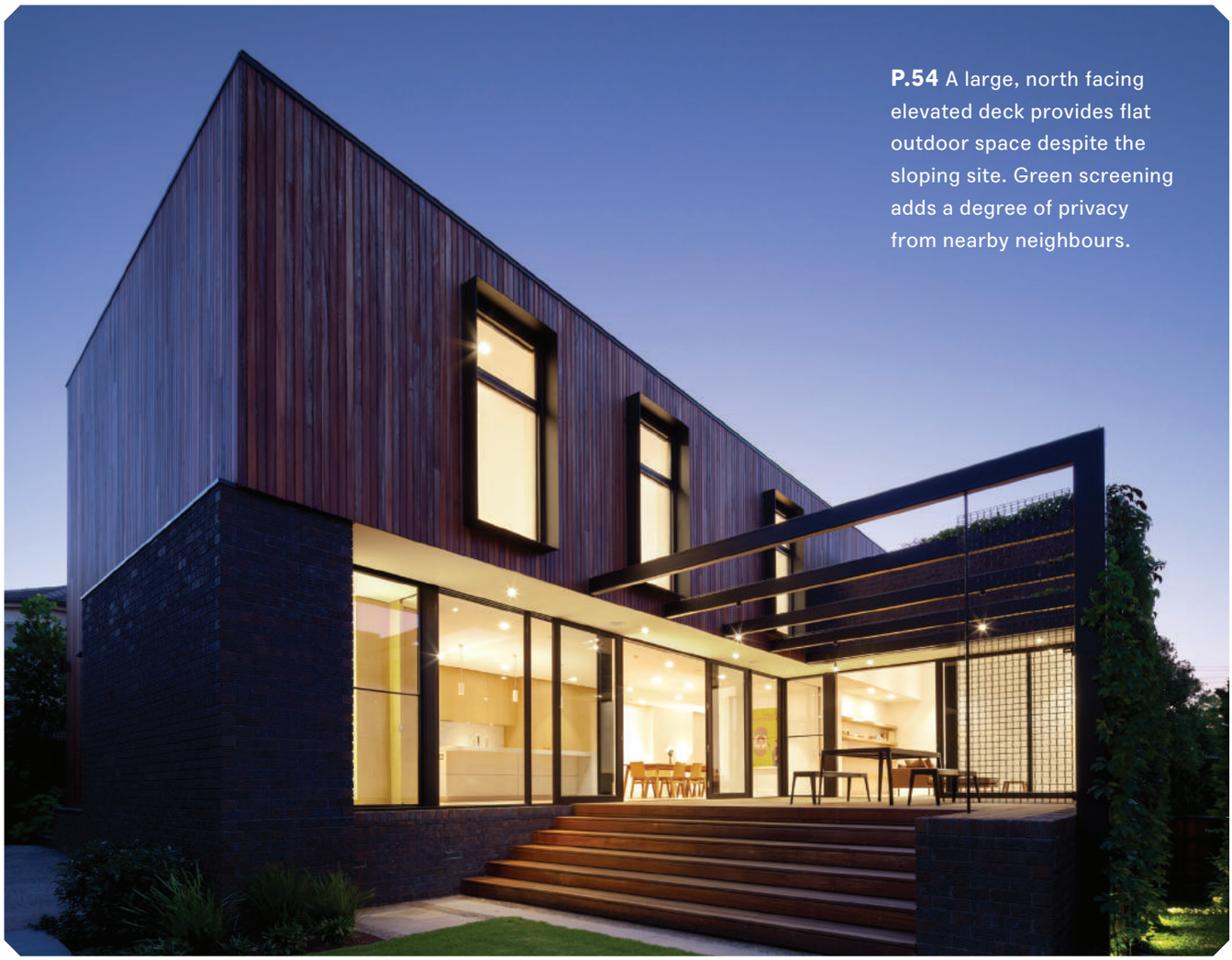
P.50 An oversized entryway is in keeping with the building's monumental street presence. **P.51** The architects minimised window openings at the front of the building for privacy, but a tall, thin window was added to frame views to nearby tree canopies.



P.52 Slit windows at the front entry help maintain privacy. **P.53–1** Multiple levels internally negotiate the sloping site. **–2** Natural materials, light and space recall the best of mid-century design.

The combination of a difficult site, a love of mid-century design and the creative use of brick has resulted in a light, bright, functional family home.





P.54 A large, north facing elevated deck provides flat outdoor space despite the sloping site. Green screening adds a degree of privacy from nearby neighbours.

The home features a selection of bricks that blend with the tones of the other brick housing in the street. Matyas chose brick for its durability, robustness and timeless qualities and the opportunity it gives to add crafts-manship to the architecture. 'That's what you can do with brick that's hard to do with other materials', Matyas says. While the pattern was devised in the design stages, the bricklayer worked closely with the architects to develop proto-types for the precise configuration. The aim was to get the best profile and shadows while maintaining the structural integrity of the wall; it needed to be both decorative and functional. The final design also had to deal with the 'turn' around the corner. Again, the bricklayer worked on-site with Matyas to develop the best solution.

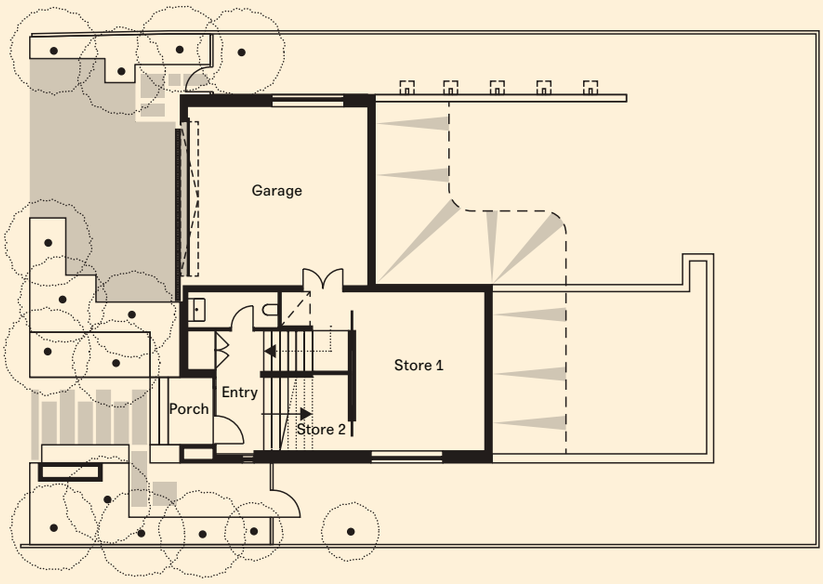
Being relatively exposed to the street and on a bend, the architects needed to minimise window openings at the front of the building. One tall, thin window was added between the patterned brick to frame views to nearby tree canopies, while preventing passing headlights from casting into the room. Frame hoods were also added to other windows, providing shade from the western sun, as well as more privacy from the neighbours.

Matyas added an oversized entryway on the street elevation, to match the building's street presence. 'It was raised to elevate it above the street, to clearly identify the entry,' Matyas explains.

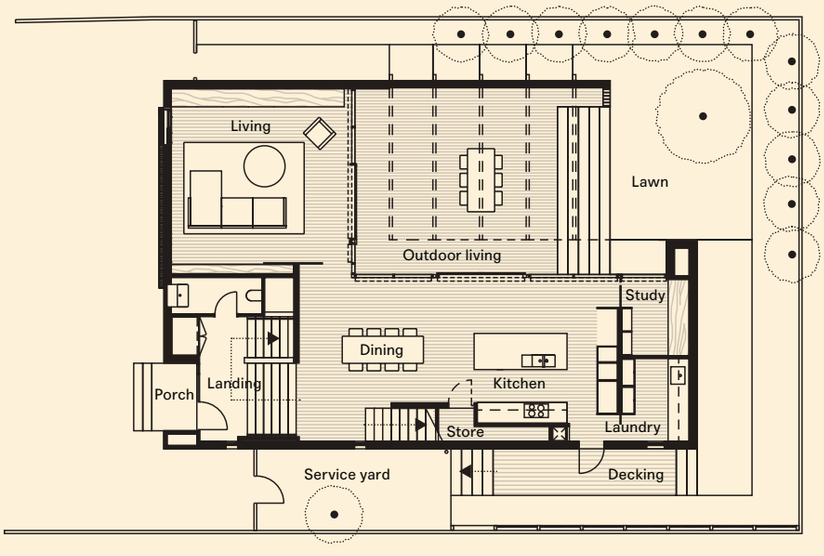
'We've also exaggerated the height, it's really one and a half levels.' This height allowed the architects to borrow a framed view of an adjacent established tree, which you can see from inside the living area. The front yard remains generously open to the neighbourhood, with planting used to define the public/private threshold instead of the stark separation of a fence line.

The combination of a difficult site, a love of mid-century design and the creative use of brick has resulted in a light, bright, functional family home that is contextualised by its materials and scale, while still commanding a presence in its suburban neighbourhood.

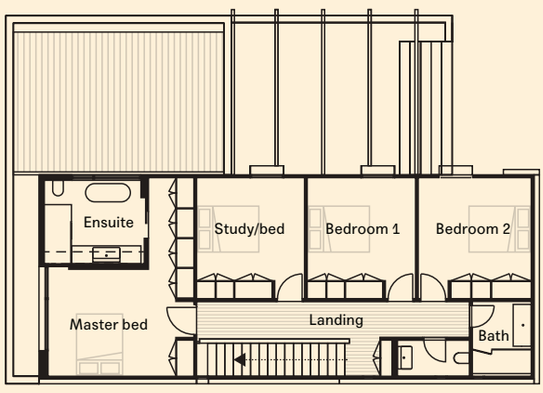
Lower ground



Upper level



Second level



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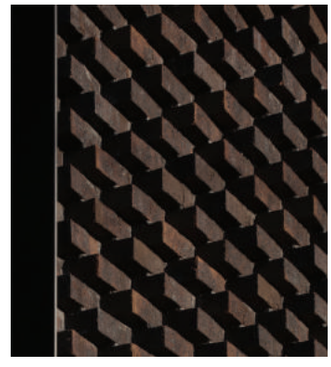
To help contextualise the Balwyn North House, Matyas Architects chose to use Daniel Robertson's Hawthorn bricks for their subtle variation in colouring, which reflected the tones of the other brick buildings in the neighbourhood. The choice of brick offered more than just a contextual response, but the opportunity to invest the building with crafts-manship. The geometric brick pattern of the street elevation, plays with depth, light and shade.

For more information on Daniel Robertson's Hawthorn bricks, see page 90.



Street performer

KENSINGTON STREET
Architect Turf Design Studio
in collaboration with Jeppe Aagaard Andersen
Type of project Public space
Location Chippendale, Sydney, New South Wales
Year of completion 2015

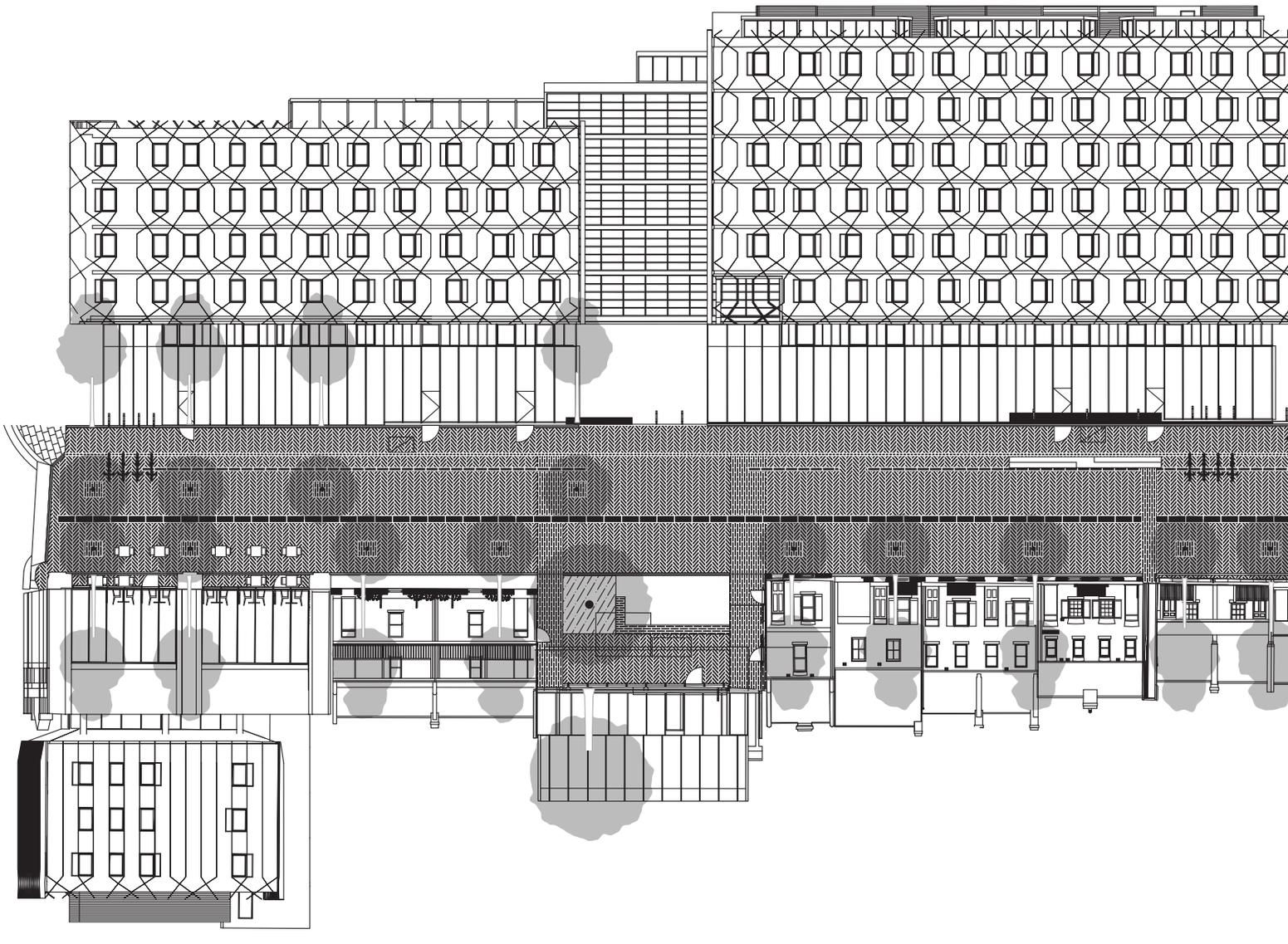
Article Peter Salhani
Photography Simon Wood

P.56 Once a back lane of the Carlton United Brewery site, Kensington Street is now a hub for the Chippendale Creative Precinct thanks to what is arguably Sydney's best urban renewal project in decades.

[58]

Sydney has a new off-Broadway cultural venue. It's not strictly speaking a theatre, but it's about the theatre of street life.

P.58—1 The project is built around the adaptation of heritage buildings and connects Broadway to Regent Street. **—2** Diagram showing the street in relation to building facades.



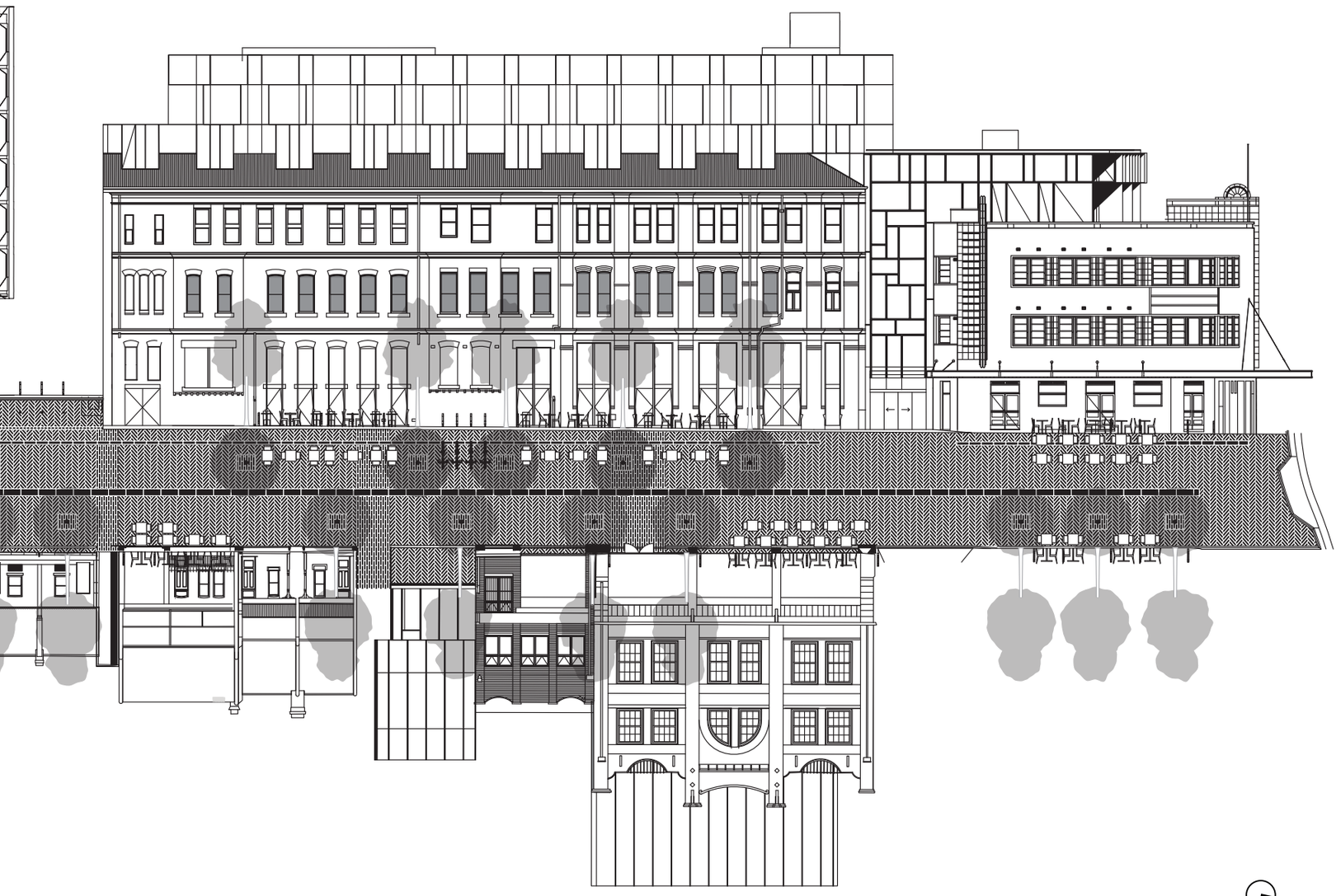
Not many streets in Sydney have their own creative director, but Kensington Street in Chippendale is exceptional. Once a back lane of the Carlton United Brewery site, today it's a hub for the Chippendale Creative Precinct (CCP) — a nuanced ecosystem of galleries, creative businesses, restaurants and bars and the jostling, fragrant eat street of Spice Alley.

It's built around the brilliant adaptation of heritage warehouses and The Old Clare Hotel and connects Broadway to Regent Street. Curated by Nicky Ginsberg (CCP founder), the calendar of events — from the BEAMS Arts Festival, Kensington Street Spring Delights and the Food, Alfresco Art and Design showcase, to Chinese New Year and the Lunar Feast — reflects inner-Sydney's shifting demographic.

Kensington Street opened to the public in September 2015 and won a string of urban design awards in 2016, including Think Brick's Bruce Mackenzie Landscape Award. The judges were unanimous in their praise of the brick-paved ground plane — a complex tapestry that's both beautiful and purposeful.

This streetscape is the work of Turf Design Studio and their long-time Danish collaborator Jeppe Aagaard Andersen, in close collaboration with Tonkin Zulaikha Greer Architects (TZG), who adapted The Old Clare Hotel. The heritage warehouses and terraces along this small strip make it an absolutely pivotal piece of Central Park — arguably Sydney's best urban renewal project in decades.

'Our brief was to make a public space that would weave together the new and adapted buildings on the eastern side, the reborn Old Clare Hotel on the west, Spice Alley and its terraces, and to use through-site links to Carlton Street to stitch it all back into the fabric of Chippendale via Central Park,' says Turf director, Mike Horne.



P.60—1 Brick defines the public areas of the project. Here, a low brick wall serves as both seating and courtyard boundary. **—2** Through-site links to Central Park are demarcated in a stretcher bond pattern. **—3** The landscape architects used a single material, brick, to pull together an eclectic mix of buildings. **P.61** Spice Alley, the project's 'eat street', uses brick pavers in a herringbone pattern.

‘Given the street’s heritage and scale, we wanted to make a very specific and special laneway experience here — quite distinct from Central Park, which we also designed.’

Horne likes to distill a project down to its single defining element: ‘A big idea that we do really well,’ he says. As Think Brick judge Guy Lake, from architectural firm Bates Smart, explains, ‘The big idea in Kensington Street is that it takes a single material and uses it to pull together a really eclectic mix of buildings into a singular, well-defined precinct.

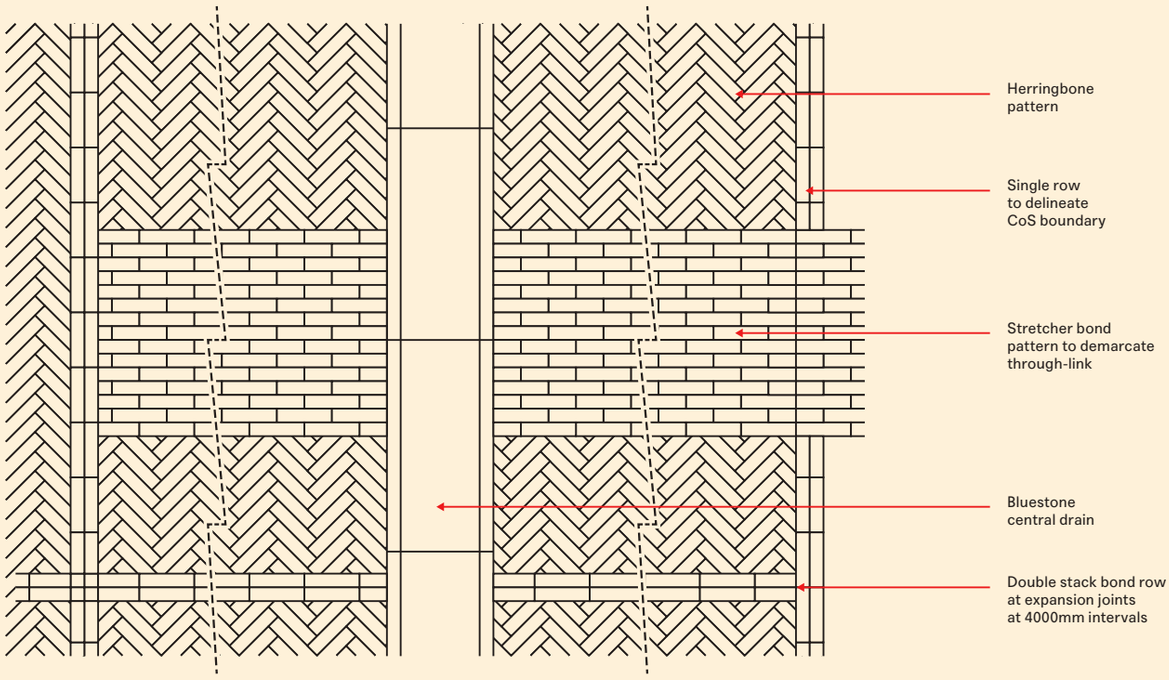
There is also a hierarchy of spaces from laneway to micro-laneway, and the brickwork uses subtle shifts in detailing and pattern to reinforce and define those separate spaces.’

These spaces include the road connecting Broadway to Regent Street, through-site links to Carlton Street and Central Park and the micro-laneways of Spice Alley. While the masterplan had designated Kensington Street for pedestrians, Horne pushed for a shared zone to keep it an authentic working street. And his design deliberately compresses the carriageway.

‘Friction (proximity) is vital in shared-street environments. The more you separate drivers from pedestrians, the faster the cars go, there’s a lot of research on that,’ he says.

Motorists on Kensington Street face a sequence of physical and visual restraints, designed to slow drivers and constrain parking: a central granite dish drain (instead of kerb drainage), a loose avenue of trees with tall tree guards, and steel bollards as mandated by Roads and Maritime Services (RMS). Even the patterns of the paving are designed to keep drivers and pedestrians alert.

Typical paving detail plan



Having selected the Hamlet Paver in ore-intensive Bowral Blue for its steely, repellant sheen, Horne's team rotated the herringbone pattern 90 degrees to increase visual tension, 'that keeps people engaged'. Other visual cues are woven through the paving, like borders in a rug. The old trachyte kerb has been relaid to its original line, edged with a single row of bricks as a palimpsest. Expansion joints are marked with bricks in a double-stack bond row and most notably, the through-site links to Central Park are demarcated in a stretcher bond pattern that cuts through the herringbone like a crossing.

Another Think Brick judge, architect Clare Cousins, noted how the small scale of the pavers allowed this variety of techniques to render so cohesively. The tapestry of paving bleeds in and around the courtyards of cafes and restaurants on the strip.

Street furnishing is kept to a minimum of working elements: steel bollards, lighting and alloy tree guards from City of Sydney's furniture palette and hardwood benches by Turf Design. A loose planting of deciduous ash trees softens the streetscape, signals seasonal change and allows low winter sun into surrounding buildings.

Horne is a resident of Central Park and observes the street daily from his coffee stop at Kensington Street Social, the hotel's ground-floor bar and bistro. He says its success stems from the initial vision of developers (Frasers Property with Sekisui House Australia and Greencliff's Dr Stanley Quek) and the calibre of TZG's warehouse adaptions and taut new infill buildings – not just as architectural objects, but as catalysts for street life. In adapting The Old Clare Hotel (for Singapore's Unlisted Collection), TZG joined the corner pub with the former Carlton United administration block, and opened a through-site link to Carlton Street and Central Park at the juncture.

'It's lovely that TZG could stretch the public domain through the hotel, which is actually private property… Making public domain is all about making connections, and the trick is to make that as interesting an experience as possible. We were all collaborating to touch lightly but decisively in forging something new from the old here.'

According to the critics, they got it right. Kensington Street not only won the Think Brick Award, but also a Landscape Architecture Award from AILA, and the 2016 Good Design Award for 'Best Overall' and 'Urban Design and Public Spaces' in Architectural Design, at which Stanley Quek is proud, but not surprised: 'Since opening a little over a year ago, Kensington Street is a hive of activity, buzzing from early morning until late at night with people of all ages and backgrounds exploring the street's dining and cultural offerings.' ●

P.62 Diagram describing the various brick paving patterns used to define different areas and pathways in the Kensington Street project.

P.63 Kensington Street under construction. The project successfully used brick pavers to weave new and heritage buildings together cohesively.

Turf Design Studio worked through trial and error to develop Kensington Street's finely grained brick patterning. The team sampled several brick sizes, but found the patterning too coarse, so they got in touch with Brickworks' business development manager, Nathan Blackwell for a solution. 'We started with the standard Hamlet Paver [in Bowral Blue], which the designers upended to have the thinner side facing upwards for finer proportions,' says Blackwell. 'To produce that, we had to adjust the staging of bricks in the kiln so the "good face" would fire correctly, and then adapt other processes to that rotation. A lot of our best products come out of that kind of collaboration.'

For more information on the Hamlet Paver collection, go to page 96.

Vision in white

IVANHOE HOUSE
Architect Kavellaris Urban Design
Type of project Residential
Location Ivanhoe, Melbourne, Victoria
Year of completion 2017

Article Maitiú Ward
Photography Courtesy Billy Kavellaris

In a leftfield response to its suburban context, a house in suburban Melbourne uses white brick to blend not just inside and out, but architectural periods and sensibilities.

P.66 From the street, three rectangular volumes, clad almost entirely in white La Paloma brick, hover back from the footpath.

At first blush, leafy Ivanhoe seems an unlikely place to find daring architecture. Set in rolling hills 10 kilometres northeast of central Melbourne, it's a placid suburb: quiet, tree-lined streets; bungalows and villas that sit politely back from footpaths; well-manicured lawns, tidy gardens. Everything, in short, both comforting and dull about Australian suburbia. Hidden in these sleepy surrounds, though, you'll find some of Australia's most influential works of residential design.

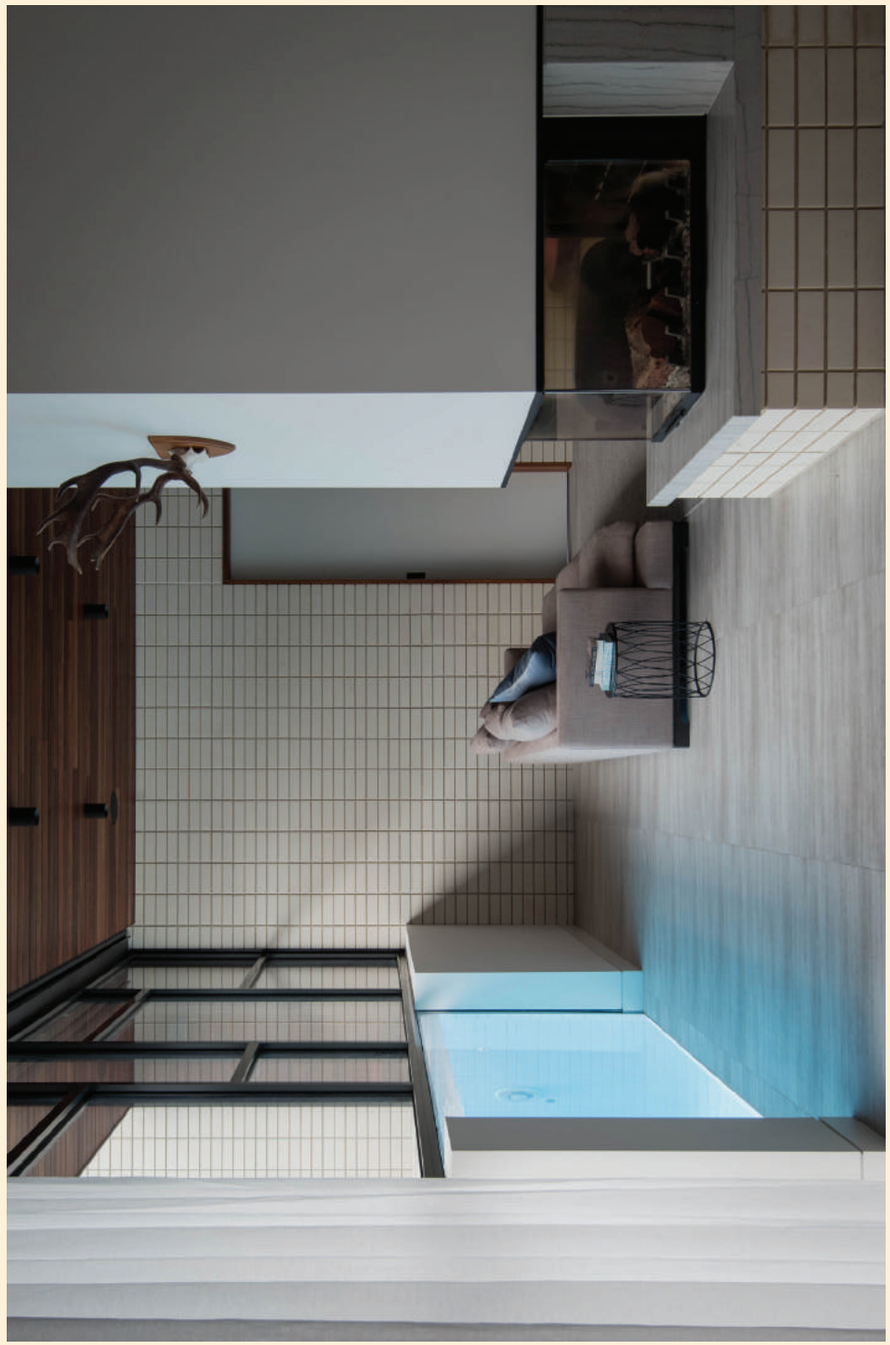
This includes the first 'garden suburb' subdivisions designed by Walter Burley and Marion Mahony Griffin in Australia, along with several of their surviving buildings, and Robin Boyd's iconic mid-century modernist residence, Featherston House, all of which cheerfully flouted or subverted the conventions of their time to redefine Australian domesticity.

Ivanhoe House by Kavellaris Urban Design is a new addition to this unlikely band of suburban upstarts. Sitting on a subtly sloping site between a cream brick bungalow to the north and a weatherboard, Federation-style villa to the south, the house's character is brazenly abstract. Three rectangular volumes, clad almost entirely in white brick, hover back from the street edge above a field of pale yellow granitic sand. The coursework of the brick forms a precise grid that is the only surface detail. The building looks monolithic, like it could have just launched out of Stanley Kubrick's *2001: A Space Odyssey*.

The Space Age aesthetic is a by-product of architect Billy Kavellaris' interest in channelling some of Ivanhoe's mid-century architectural history. The building's bold form and stripped-back material palette do recall some of the uncompromising 'capital M' modernist buildings from the period. Step through the enigmatic smoked glass portal from the street, though, and the set shifts from lunar landing site to poolside at Frank's place in Palm Springs. Like the relaxed strain of modernism that developed in California in the latter half of last century, before being taken up with gusto in Australia's post-war suburbs, this is architecture for a life well lived.

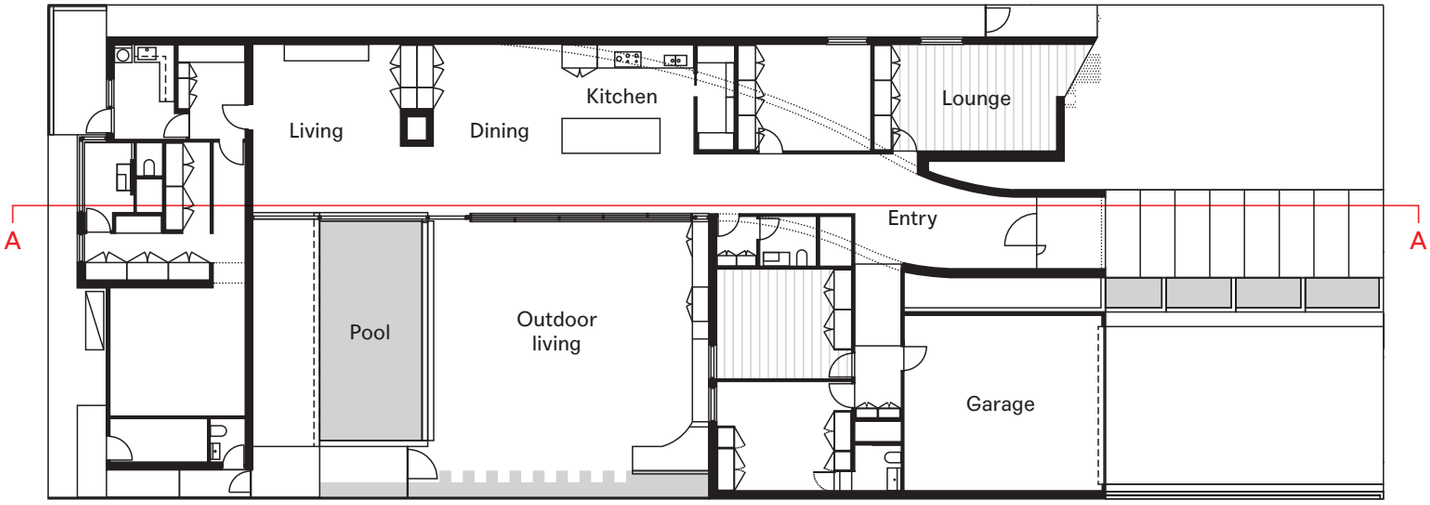
The house is a home for Kavellaris' old friends, Steve, Penny and their children – in fact, you could say they're practically family, as the fathers of Kavellaris and Steve grew up together as neighbours in the same village in Greece. As Kavellaris describes, their brief to him was focused on making a great space for raising kids and entertaining. Beyond the front door, the impassive geometry of the house's public face gives way to a light-filled and curvaceous circulation space clad in warm, spotted gum timber. This double height 'room' blends the kitchen, dining and sitting room areas through a semi-open plan, all of which look out onto a sun-drenched (on one of Melbourne's California days) north-facing courtyard and pool.

P.67 The swimming pool is playfully transected by the glass wall of the living area, so the indoor space shares the underwater world of the outdoor pool.



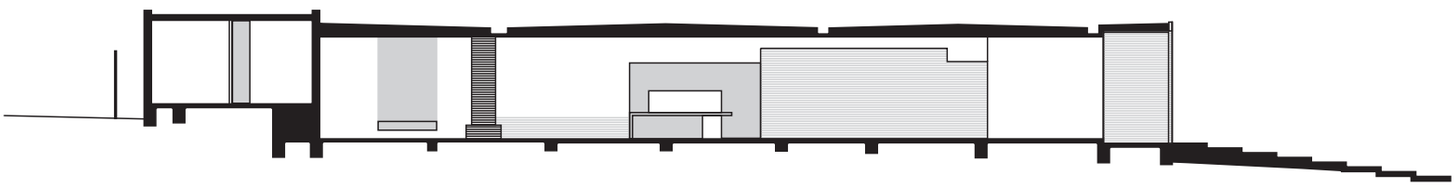
P.68 A double-height ‘room’ blends the kitchen, dining and sitting room areas through a semi-open plan, all of which look out onto a sun-trapping, north-facing courtyard.

Plan

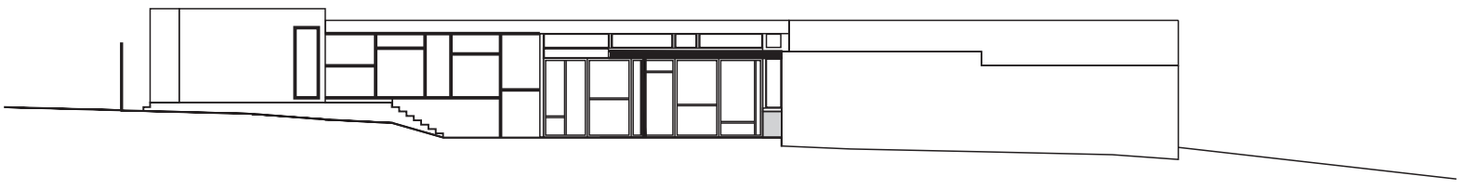


- This isn’t architecture conceived for the vacuum of space, but for the good life of Australian suburbia.

North elevation



Section A--A



The east and west walls of this courtyard are clad in the same white Spanish brick as the house's street elevation, with the brick of the west wall continuing straight through the glazing of the living areas as cladding for the sitting room wall. This blurring of the line between inside and out was a popular modernist tactic and is now a time-tested approach in Australian residential design, but it's especially appropriate here, where the courtyard and its adjacent living areas join to form the entertainment nerve centre of the house.

A wood-fired oven takes up a prominent spot in the north-eastern corner of the courtyard (Steve, who loves to hunt, tells me it's big enough for a whole goat), while adjacent to this the roof of the house stretches out to shelter an outdoor serving and dining area.

A post-and-beam structure formed from exposed steel I-beams supports the canopy – architecture geeks might wonder if there isn't a nod here to the modernist Mies van der Rohe. Mies used the I-beam in many of his most famous buildings, including one of the houses arguably responsible for popularising the idea of closer connections between inside and out, Farnsworth House. Unlike Farnsworth House, though, this building doesn't sit isolated in a leafy meadow, but must deal with the messier conditions of close-quartered suburbia. Its vision of domestic life isn't quite as austere as that reflected in Mies' stripped-back, steel-frame pavilion, either.

Diagonally across the courtyard from the wood-fired oven, the swimming pool forms a perfect blue cube, playfully transected by the glass wall of the living area, so the indoor space shares the underwater world of the outdoor pool. Espaliered citrus trees, meanwhile, run along the concrete wall that forms the northern boundary of the site – in handy proximity to the oven and barbecue.

This productive landscape is mirrored at the street entry, where a stepped row of garden beds edges the path to the front door. When I visit, heads of lettuce and other veg form a leafy counterpoint to the cerebral abstraction of the street elevation. A demonstration, ultimately, that this isn't architecture conceived for the vacuum of space, but for the good life of Australian suburbia.

P.70 On the eastern side of the courtyard, a swimming pool forms a perfect blue cube, which the master bedroom looks out across.

P.71 The front door gives way to a light-filled and curvaceous circulation space clad in warm, spotted gum timber. An artwork by the door captures the building's plan in abstract.

The bold, singular form of Ivanhoe House is clad predominantly in the Miro brick from Austral's La Paloma range. Architect Billy Kavellaris wanted to capture something of the surrounding suburb's mid-century modernist architecture in the building, much of which is also defined by the skilful use of brick. The cool white of the Miro brick adds a suitably Space Age touch to the crisp lines of the house.

For more information on the La Paloma range, see page 92.

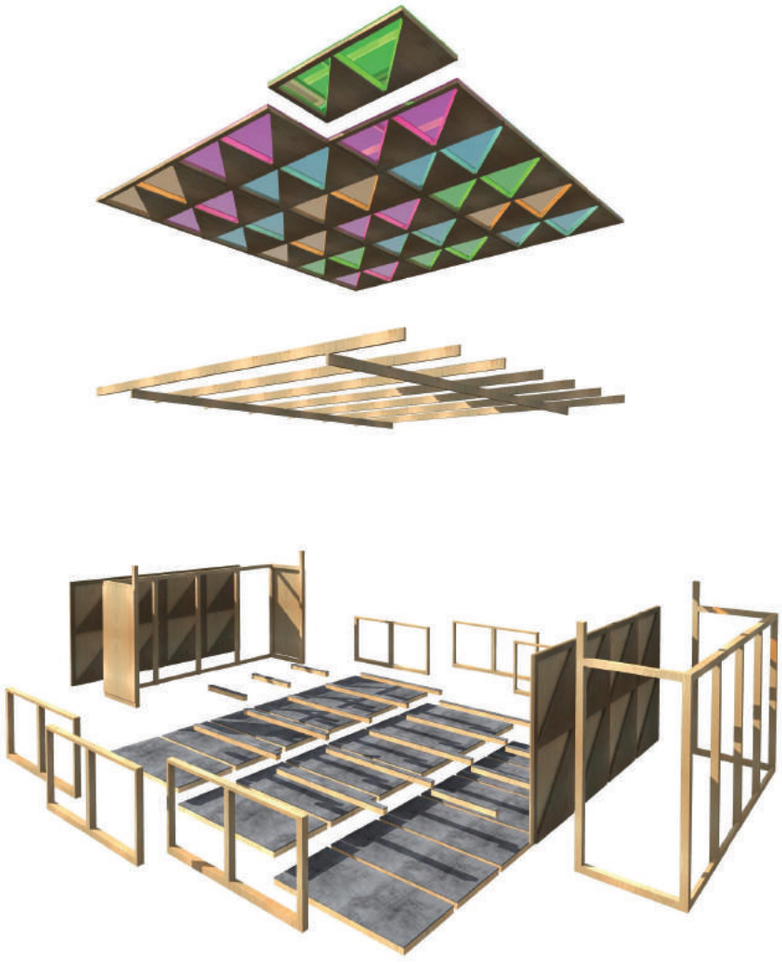

BRICKWORKS
EXCLUSIVE
CINEMABAR
FOLIO 02 / 2017

Cut once, build thrice

Article Alice Blackwood
Photography Courtesy Brickworks, Byron George

BRICKWORKS PAVILION
Designer Russell & George
Type of project Pavilion
Year of completion 2016
Location Various (transportable)

P.72 A transportable, reconfigurable pavilion designed to offer a glamorous gathering spot for VIP guests and snap-happy influencers.



P.74 The architects devised a set of modular elements that can be connected in up to 30 different ways, with interchangeable wall and ceiling panels. **P.75** In its second and third iterations, the pavilion was reconfigured as a marquee at Polo in the City in Sydney and Melbourne.

To design a temporary, reusable event pavilion is an exercise in complex thinking and deceptively simple solutions. As if not content with this challenge alone, ***Russell & George*** also decided to make the transportable pavilion they designed for **Brickworks**, reconfigurable as well.

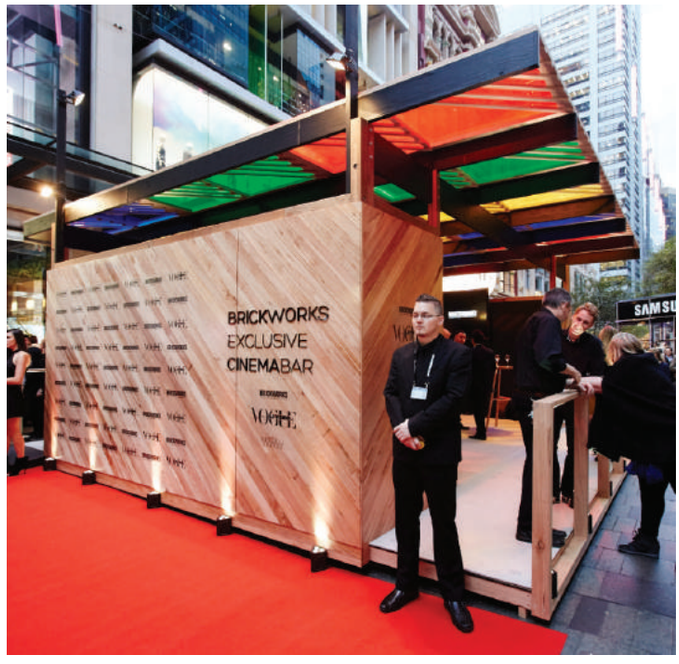
At its most basic, a pavilion offers shelter; at its most complex, an unforgettable experience. Having planned a presence at three major events in 2016, Brickworks was looking for a smart, reusable solution that would allow the brand to interface with a range of locations – from sporting field to fashion mall – while also appealing to their diverse network of clientele.

A series of conversations between Brickworks and Russell & George culminated in the latter suggesting a modular solution that would allow Brickworks to 'set up house' not once, but three times, using the same temporary structure.

'In pavilion design, you tend to see a lot of sculptural forms and generally they're assembled over a period of weeks,' says Ryan Russell of Russell & George. With this particular pavilion, Russell & George was challenged to design a solution that could be assembled and dismantled within a tight 24-hour period.

● ● ●

"It had to be fun, social media-worthy and a space where visitors would want to spend the best part of their day." — *Russell & George*



P.76 The pavilion's first iteration, Vogue Fashion Night Out in Sydney's Pitt Street Mall, took the form of a square structure, with access via all sides and roofing panels clad in brilliantly coloured Perspex sheeting.
P.76 The blonde hues of chestnut and silvertop ash timber, sourced from Auswest Timbers, brought a light, airy personality to the pavilion at Polo in the City.

Russell & George was challenged to design a solution that could be assembled and dismantled within a tight 24-hour period.

With no time for the intricate dance of 'matching panel A to panel B', the team devised a set of modular elements that can be connected in up to 30 different ways. Wall and ceiling panels were designed to be interchangeable and, in fact, the only elements that might be customised, to cater specifically to site, event and crowd, were the ceiling and the paintwork.

When it came to developing the material palette, Russell & George naturally sourced finishes and building materials from Brickworks. Here, they applied hand-selected bricks, cement and timber finishes to achieve a pared-back, subtly textural design that could be styled up or down, reconstructed and, most importantly, offer a glamorous gathering spot for VIP guests and snap-happy influencers.

For its initial outing at Vogue Fashion Night Out in Sydney's Pitt Street Mall, the pavilion took on a square structure with access via all sides. Roofing panels clad in brilliantly coloured Perspex sheeting shed a kaleidoscope of colours onto the interior. Crowds milled around the bar, constructed using brick facings selected from Austral Bricks' Allure range.

Russell & George's modular concept was put to the test in its second and third iterations as a marquee at Polo in the City (in Sydney and Melbourne respectively). 'Here the focal point was different,' comments Russell. The building blocks were assembled to create a clear line of sight out to the polo field, and the marquee styled to appeal to Brickworks' exclusive polo crowd.

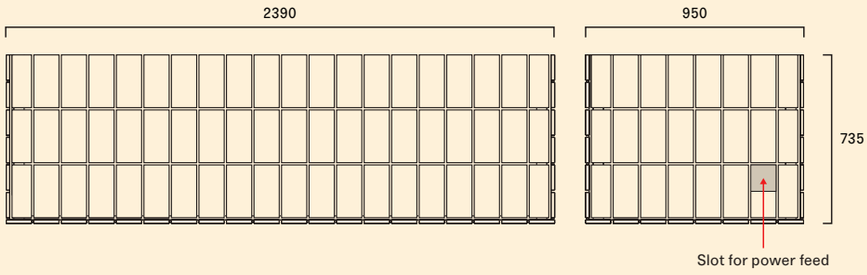
Here, the blonde hues of chestnut and silvertop ash timber, sourced from Auswest Timbers, brought a light, airy personality to the marquee. This was accentuated by the sheer Perspex ceiling panels, which filtered out the sun while shedding a cross-thatch of shadow and light across the walls and floors. 'From a distance, the whole thing looked like a scene out of *The Arabian Nights*,' comments George.

The temptation to create a sculptural structure was all too easy – these spaces need to be Instagram-worthy, after all. But Russell & George resisted, feeling that anything too elaborate would be a distraction – not to mention a waste of resources. Instead, they designed the pavilion as a beautiful yet understated backdrop to the main event.

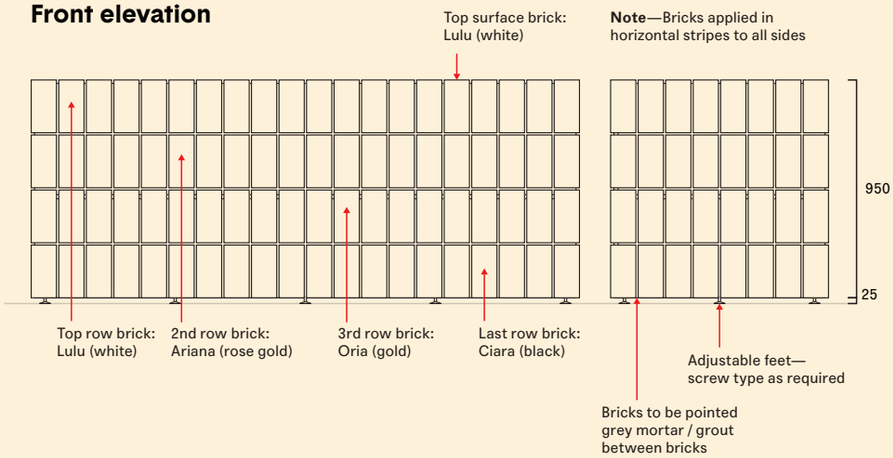
The material finishes, while raw and industrial in nature, come together in a light and refined way. The result is uplifting and enticing. 'It had to be fun, social media-worthy and a space where visitors would want to spend the best part of their day,' says Russell. Mission accomplished.

P.78 Sheer Perspex ceiling panels filter out sun while shedding a cross-thatch of shadow and light across surfaces. **P.79** Plans for the bar, which was constructed using brick facing selected from Austral Bricks.

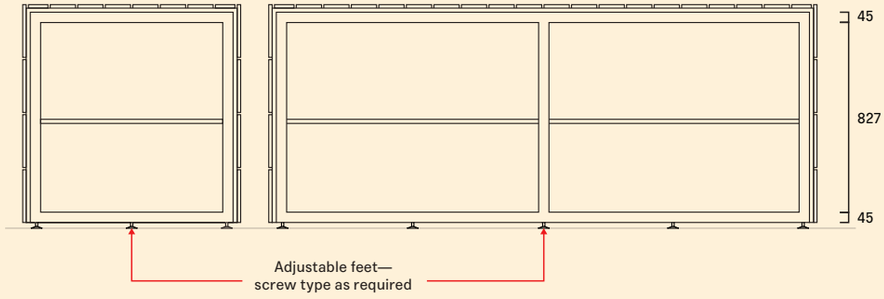
Plan



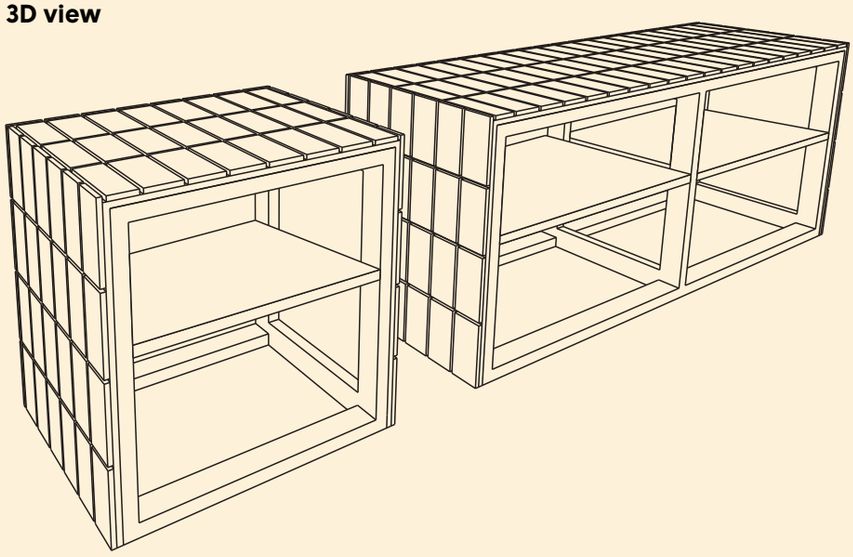
Front elevation



Back elevation



3D view



Russell & George chose Auswest Timbers Wormy Chestnut for the reconfigurable timber elements that make up the pavilion. It was the perfect choice to add a subtly textural quality to the design, as every piece of Wormy Chestnut carries its own distinctive whorls and markings.

For more information on Auswest Timbers Wormy Chestnut, see page 96.

Fast tracked

Article Michael Holt
Photography
Christopher Frederick Jones

ANNA MEARES VELODROME

Architects Cox Architecture
Type of project Sports facility
Location Chandler, Brisbane, Queensland
Year of completion 2016

P.80 The saddle-shaped roof form of the velodrome helps minimises weight.

Concrete blockwork brings a surprisingly human-scaled, crafted appeal to the lean, functional form of a velodrome built just in time for the 2018 Commonwealth Games.

Anna Meares is a four-time Olympian, a Queensland-born cyclist and Australian sporting icon who carried the national flag at the opening ceremony of the 2016 Summer Olympic Games in Rio de Janeiro. It is fitting, then, that Queensland's premium indoor velodrome carries her name: the Anna Meares Velodrome, which will host competition events and the training of elite cycling squads.

Designed by Cox Architecture, following an invited design competition in 2013, the Anna Meares Velodrome is located in bushland in the Sleeman Sports Complex, purpose-built for the Brisbane 1982 Commonwealth Games. The built form is, to use cycling parlance, the *domestique* (servant) to the track – an international competition standard 250-metre cycling track, formed from Siberian spruce in six-metre straight sections curved by hand – and was fast-tracked to be the home of the Gold Coast 2018 Commonwealth Games Track Cycling competition.

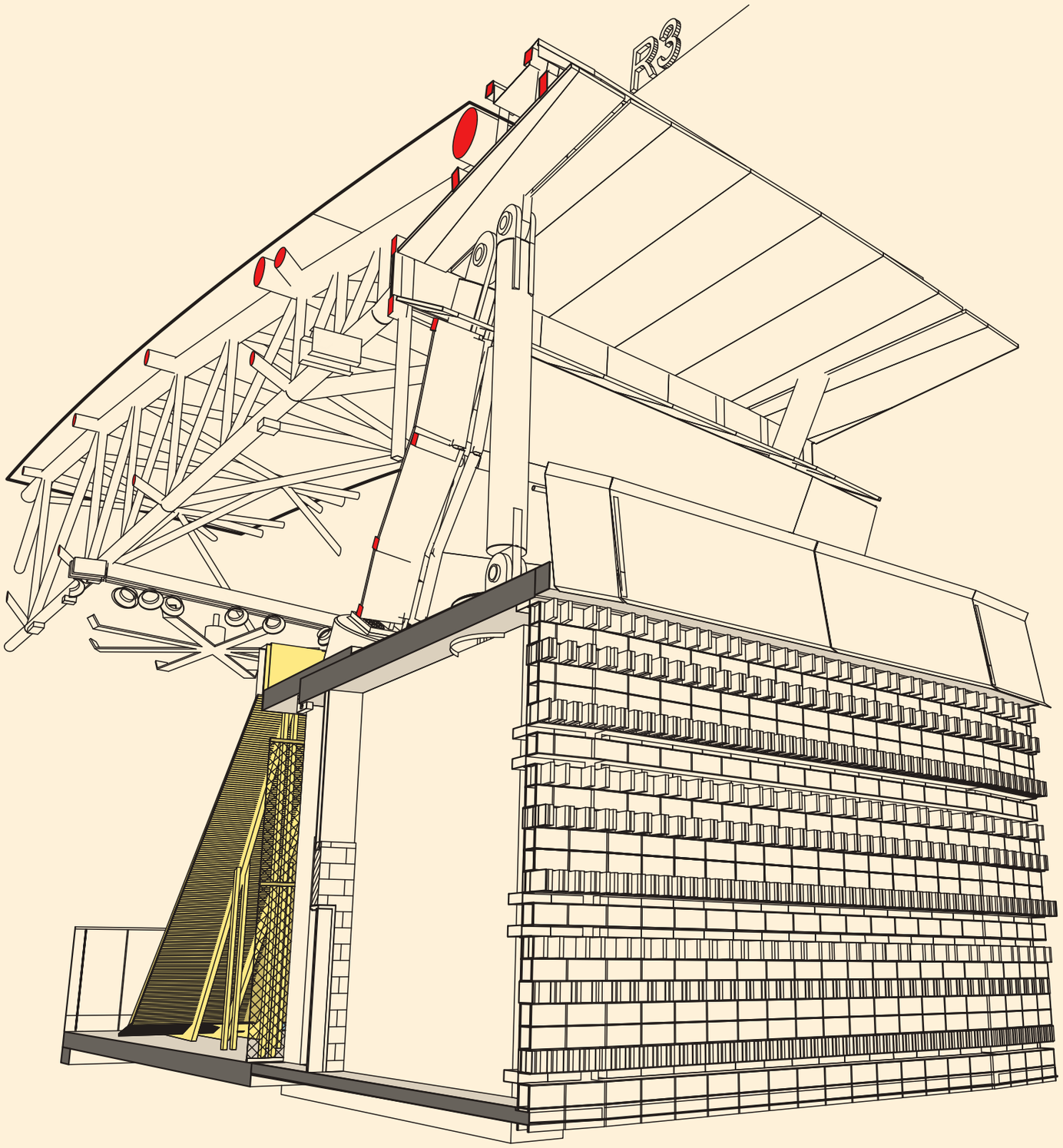
On approach, the eye is drawn to the saddle-shaped roof; a typical approach to minimising weight in contemporary stadia. The highly crafted steel superstructure is wrapped with a combination of opaque and translucent tensioned PTFE fabric – its skin – and is an engineering feat, where slender steel members function without becoming overbearing elements.

The stark white membrane skin conceals the skeletal framework and acts as a canvas for the surrounding eucalypt vegetation, again becoming the *domestique* as the trees cast ever-changing shadows across the facade.

The velodrome is embedded into a sloping site, making good use of the grade change to enable an external amphitheatre for an adjacent BMX track. The gradation created by submerging the building into the land allows for stepped seating on the building's southern aspect, away from the sun's glare. It also provides a grand stair entrance for public access from the car park, which announces the building as a significant addition to the landscape. At the building's perimeter, additional revenue streams are provided through the inclusion of a commercial gymnasium, administrative offices, and high-performance facility; while internally, the infield is configured for court sports to extend the function of the facility beyond Games mode.

Legacy is an undoubted concern for Olympic and Commonwealth Games stadia, hence organisers and designers build-in flexibility to ensure revenue flows continue once events conclude. The velodrome currently accommodates 1500 seats, with expansion to 4000 seats possible in event mode along the western concourse. This area is designated for corporate events, informal gatherings or fitness classes.

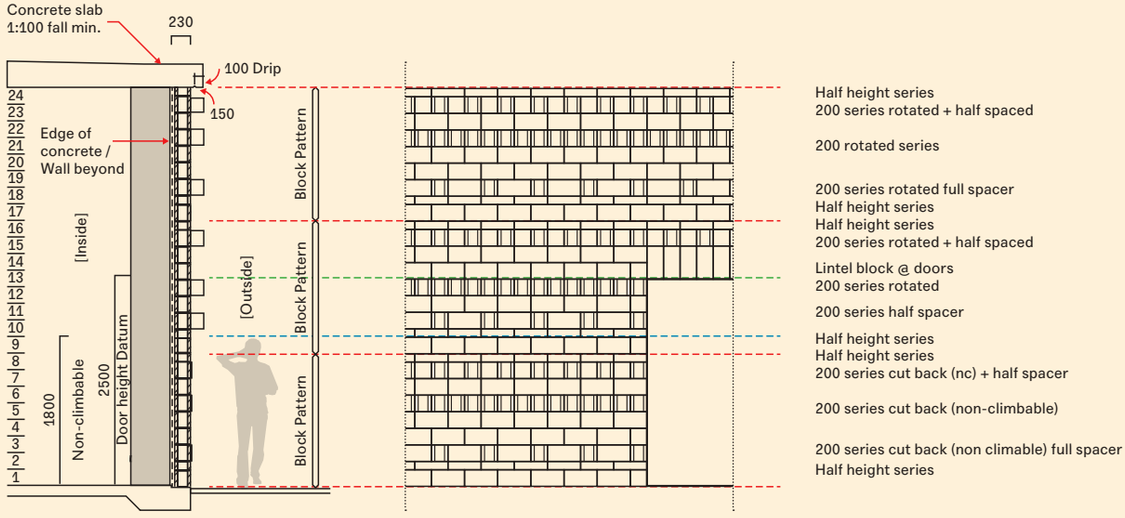
P.82 A white PTFE membrane conceals structure, but also becomes a canvas for the shadows of surrounding gumtrees.
P.83 Velodrome axonometric cutaway of the block wall and roof.



P.84 Staggered and protruding concrete blockwork plays with light and shadow and adds visual interest to the building's base.
P.85 —**1** The cycle track in action. Image—Veloshotz —**2** Typical section and elevation for the block wall.

- The project is characterised by the use of simple, cost-effective materials in a manner that blends both intuition and careful calculation.

South feature block wall



This will ensure the building's financial viability in the long term. The roof is a grand, sculptural gesture, but the project can also be understood at a much smaller scale – through the lens of the humble concrete block.

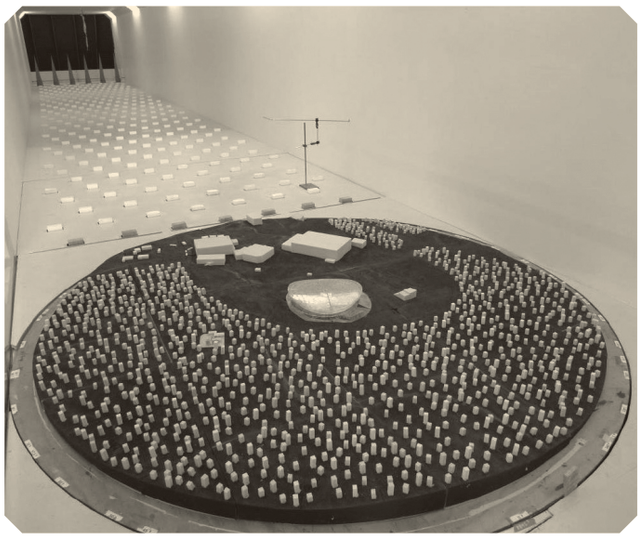
The traditional hollow core masonry unit is usually found in the less glamorous parts of buildings, or in projects constrained by tight budgets. It is an effective barrier for insulation or weather protection, but not necessarily seen as a design feature. Yet, in the velodrome the concrete block is used almost ornamentally – the building's curved form is underpinned by layers of staggered and protruding concrete block, transforming it into a sculptural feature.

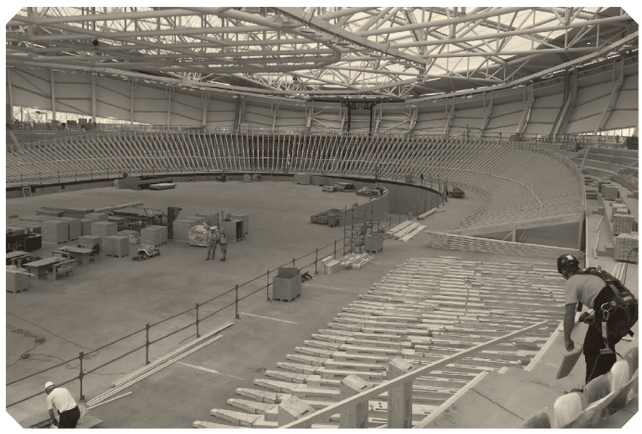
The blocks were halved on site by the builder, with each offcut reused. This concrete block usage is indicative of the design approach to the project as a whole, which is characterised by the use of simple, cost-effective materials in a manner that blends both intuition and careful calculation.

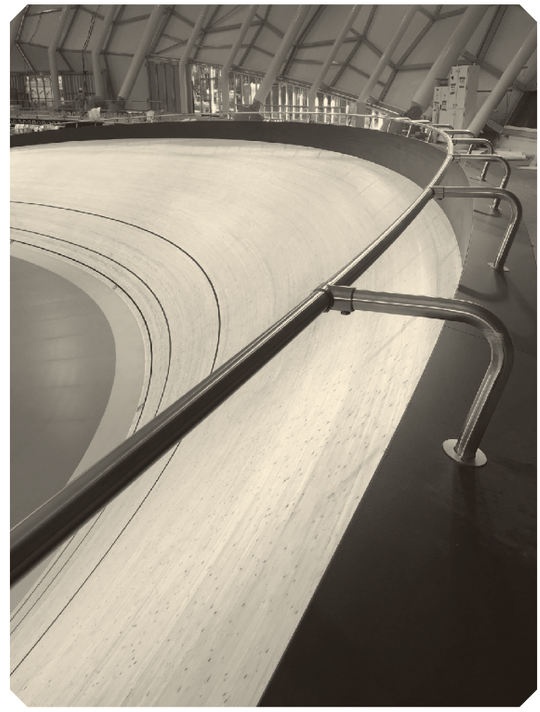
Cox Architecture's Richard Coulson notes that the blockwork's patterning went through various incarnations to test how light cast different shadows throughout the day, suggesting it was a metaphorical nod to the cogs of a bicycle. While this implies a mechanical referent, the project more wholly represents a combination of craft and mechanics: the steel roof system, the carefully arranged blockwork, and the handmade timber track.

Much as the roof membrane is a layer applied to conceal the velodrome's steel structure, the blockwork conceals and protects the structural columns behind it. It is an effective barrier, a skin, but in its application at the base of the velodrome it channels a duality as an efficient, functional solution, as well as a human-scaled, expressive detail on an otherwise industrial scale building.

The velodrome is sparse in its requirements (it is, essentially, a shed over a track) and externally the opportunity for design is equally minimal. It is through tweaking and turning, rotating and reversing the blocks that wrap the building's base that Cox has both crafted a project of notable architectural merit and delivered a velodrome functionally primed for the Games.

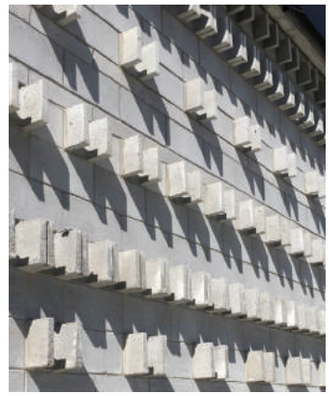






P.86—1 The velodrome model being tested in a wind tunnel (view from the southwest). **—2** Six-metre sections of Siberian spruce were curved by hand to form the cycling track. **—3** The cycle track being laid.

P.87 A grand stair entrance for public access from the carpark announces the building as a significant addition to the landscape.



The Anna Meares Velodrome uses the Austral Masonry Grey Block range in a variety of configurations on its base to provide visual interest. Cox Architecture's Richard Coulson says that the blockwork's patterning went through various incarnations to test how light cast different shadows throughout the day, with the builder halving the blocks on-site and reusing each offcut. **See page 94 for more information on the Austral Masonry Grey Block range.**

FolioElements

02 / 2017

Daniel Robertson Hawthorn range

The Hawthorn range is a development of the iconic Hawthorn bricks that are an inherent part of the character of Melbourne's prestigious inner-ring suburbs. Their colours reinterpret the traditional Hawthorn bricks, while retaining their old English charm. Daniel Robertson's Hawthorn range is a firm favourite in heritage renovations, infills and extensions, as well as in contemporary architecture.

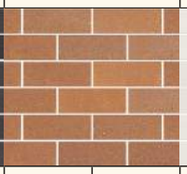
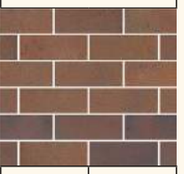
REFER

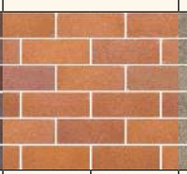
Balwyn North House
Matyas Architects
Folio 2, page 26

	Hawthorn Black	**Hawthorn Cambridge**	**Hawthorn Dulwich Grey**	**London**	**Hawthorn Red**	**Hawthorn Tan**
						
Normal dimensions — length × width × height (mm)	230 × 110 × 76	230 × 110 × 76	230 × 110 × 76	230 × 110 × 76	230 × 110 × 76	230 × 110 × 76
Dimensional category	DW1	—	DW0	—	—	DW1
Units per square metre	48.5	48.5	48.5	48.5	48.5	48.5
Pack size	384	384	384	384	384	384
Average weight per unit	3.2 kg	3.2 kg	3.2 kg	3.5 kg	3.5 kg	3.5 kg
Characteristic unconfined compressive strength	> 15 MPa	> 12 MPa	> 15 MPa	> 15 MPa	> 15 MPa	> 15 MPa
Cold water absorption (%)	< 10	< 12	< 12	< 8	< 13	< 14
Initial rate of absorption (IRA) (kg/m2min)	< 0.5 – 1.5	< 1.5 – 3.0	< 0.4 – 2.5	< 0.5 – 1.5	< 1.0 – 2.5	< 0.5 – 4.0
Liability to efflorescence	Slight	Slight	Slight	Slight	Slight	Slight
Lime pitting liability	Slight	Slight	Slight	Slight	Slight	Slight
Core perforation (%)	< 20	< 20	< 20	< 20	< 20	< 20
Solar absorptance rating	Dark	Dark	Dark	Dark	Dark	Dark

Note— All technical data correct at time of printing

Austral Bricks Bowral Bricks

	Bowral Blue		Bowral Brown		Brahman Granite		Capitol Red		Chillingham White		Gertrudis Brown	
												
length × width × height (mm)	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76		230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50
Units per m2	48.5	69.5	48.5	69.5	48.5		48.5	69.5	48.5	69.5	48.5	70
e'Factor (mm/m)	< 1.2	< 0.5	< 0.5	< 0.5	< 0.5		< 0.8	< 0.5	< 1.0	< 1.0	< 0.5	< 0.5
Characteristic unconfined compressive strength (f'uc) (MPa)	> 15	> 20	> 12	> 15	> 15		> 8	> 12	> 10	> 10	> 12	> 12
Cold water absorption (%)	< 10	< 6	< 10	< 10	< 10		< 12	< 10	< 14	< 14	< 10	< 10
Initial rate of absorption (IRA) (kg/m2min)	2.0 – 8.0	3.0 – 6.0	3.0 – 8.0	3.0 – 6.0	3.0 – 8.0		3.0 – 8.0	3.0 – 6.0	3.0 – 8.0	3.0 – 8.0	3.0 – 8.0	3.0 – 6.0
Durability	Exp.		Exp.		Exp.		Exp.		Exp.		Exp.	
Solar absorptance rating	Dark		Dark		Dark		Medium		Light		Dark	

Guernsey Tan	Limousin Gold	Murray Grey		Renovation Gertrudis Brown		Shorthorn Mix		Simmental Silver		St Pauls Cream
										
230 × 110 × 76	230 × 110 × 76	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76	230 × 110 × 50	230 × 110 × 76
48.5	48.5	48.5	69.5	48.5	69.5	48.5	69.5	48.5	69.5	48.5
< 1.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
> 10	> 8	> 12	> 15	> 12	> 15	> 12	> 15	> 12	> 12	> 10
< 10	< 10	< 10	< 10	< 10	< 10	< 12	< 12	< 10	< 10	< 12
3.0 – 6.0	3.0 – 8.0	3.0 – 6.0	3.0 – 6.0	3.0 – 8.0	3.0 – 6.0	3.0 – 8.0	3.0 – 6.0	3.0 – 6.0	3.0 – 6.0	3.0 – 6.0
Exp.	Exp.	Exp.		Exp.		Exp.		Exp.		Exp.
Medium	Dark	Medium		Dark		Medium		Medium		Light

Beautifully crafted and supremely versatile, Bowral Bricks is the foundation shaping the future. Combining technology and tradition, our range not only offers exceptional structure and longevity, it gives you the ability to take on distinctive forms and create a defining moment. Bowral Bricks don't just help inspire your imagination, they build it.

REFER

Eve Apartments
DKO Architecture
Folio 2, page 32

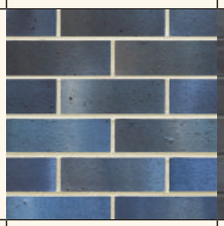
Austral Bricks
La Paloma Range

Capture the lively spirit of Spanish artists with the La Paloma range of icy white and coal black bricks that challenge the traditional possibilities of brick manufacture. With their unparalleled quality and multiple size options, this truly stylish range makes a confident proclamation of your intentions.

REFER

Eve Apartments
DKO Architecture
Folio 2, page 32

Ivanhoe house
Kavellaris Urban Design
Folio 2, page 64

Product name	**Azul**	**Gaudi**			**Miro**		
							
Length × Width × Height (mm)	230 × 110 × 76	230× 110× 76	230× 110× 50	290× 110× 50	230× 110× 76	230× 110× 50	290× 110× 50
Units per m2	48.5	48.5	70	56	48.5	70	56
e'Factor (mm/m)	< 0.5	< 0.5			< 0.5		
Characteristic Unconfined Compressive Strength (f'uc)	> 20 MPa	> 20 MPa			> 15 MPa		
Cold Water Absorption (%)	< 5	< 5			< 6		
Initial Rate of Absorption (IRA) (kg/m2min)	< 0.8	< 0.8			< 0.8		
Durability	Exposure	Exposure			Exposure		
Solar Absorptance Rating	Dark	Dark			Light		

Austral Precast
Solid Wall

Solid Wall is one of the most efficient building materials as it is cast in factory and delivered on site, ready for installation. Door and window openings can also be incorporated into the precast panels, offering a versatile building material that is suitable for use as a façade, functional wall, or an ideal solution for structural load bearing applications.

PermaTech finishing solutions can be printed onto the panels to add colour, formed finishes, or graphic images, providing design flexibility to suit a number of applications.

Solid wall can eliminate the need for structural framing when used as structural panels. Additionally, due to their mass, the panels provide excellent sound insulation properties, and reduce the need for artificial heating and cooling, thereby reducing energy costs by creating a thermal barrier that reduces internal temperature fluctuations.

REFER

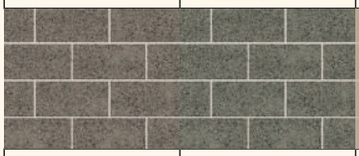
City Beach Surf Life Saving Club
Christou Design Group
Folio 2, page 40

Austral Masonry GB Honed Range

A tactile finish, a subtle sheen and a palette of contemporary colours characterise Austral Masonry's elegant GB Honed Range. Perfectly suited to residential designs, high-end multi-residential buildings or commercial projects, these versatile concrete blocks are blended from high-quality sand, cement and aggregate, with oxides and coloured sands added to create a dynamic colour range. The honing process grinds 2–3mm from the surface, resulting in a smooth matte finish accentuated by exposed aggregate. The blocks offer a low-maintenance finish that provides sound insulation and is resistant to fire and termites. The GB Honed Range is available in a range of sizes and thicknesses.

REFER

Inverdon House
Chloe Naughton
Folio 2, page 48

Bark	Gumnut	Limestone	Nickel
			
Oak	**Pebble**	**Pewter**	**Porcelain**
			

Nominal dimensions— thickness × height × length (mm)	100 × 200 × 400
Actual dimensions— thickness × height × length (mm)	90 × 190 × 390
Core volume (% overall thickness)	27
Characteristic unconfined compressive strength	> 15 MPa
Minimum face shell thickness (mm)	25
Average block weight (kg)	10.000
Average number per tonne	100
Number per pallet	180
Number per m	12.5
Wall mass inc. Mortar hollow (kg/m)	132
Durability grade	Exposure
Fire resistance level (frl) for insulation (minutes)	60 to 240/60/60

Austral Masonry GB Smooth Range

Austral Masonry's GB Smooth range of concrete blocks offers strength and versatility. A range of fine sands and oxides are added during construction to create a flexible, contemporary range of colours.The blocks are crafted in Austral Masonry's Gympie plant and offer effective acoustic insulation, resistance to fire and termites, low environmental impact and low maintenance throughout their life. The GB Smooth Range is available in a range of sizes and thicknesses.

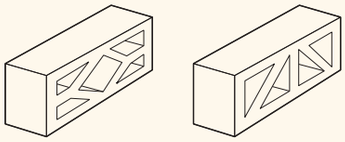
REFER

Inverdon House
Chloe Naughton
Folio 2, page 24

Bark	Gumnut	Limestone	Nickel
			
Oak	**Pebble**	**Pewter**	**Porcelain**
			

Nominal dimensions— thickness × height × length (mm)	100 × 200 × 400
Actual dimensions— thickness × height × length (mm)	90 × 190 × 390
Core volume (% overall thickness)	27
Characteristic unconfined compressive strength	> 15 MPa
Minimum face shell thickness (mm)	25
Average block weight (kg)	10.000
Average number per tonne	100
Number per pallet	180
Number per m	12.5
Wall mass inc. Mortar hollow (kg/m)	132
Durability grade	Exposure
Fire resistance level (frl) for insulation (minutes)	60 to 240/60/60

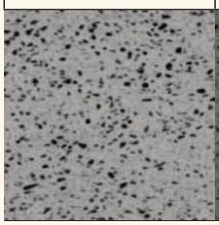
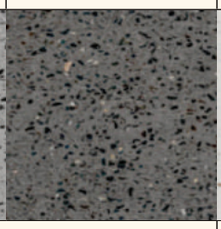
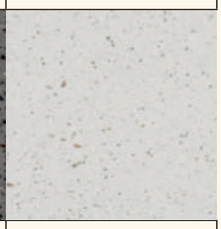
Austral Masonry Breeze Block range



Contemporary colours and effortless style created in concrete. The Austral Masonry Breeze Block range has been designed to complement contemporary designs. The range is currently available in two designs, which have already drawn an enthusiastic response from our customers looking for a distinctive walling option. The range offers a unique aesthetic and ventilation.

REFER

Inverdon House
Chloe Naughton
Folio 2, page 24

Nickel	Pewter	Porcelain
		

Nominal dimensions— thickness × height × length (mm)	150 × 200 × 400
Actual dimensions— thickness × height × length (mm)	140 × 190 × 390
Core volume (% overall thickness)	32
Characteristic unconfined compressive strength (mpa)	> 15
Minimum face shell thickness (mm)	18
Average block weight (kg)	12.200
Average number per tonne	82
Number per pallet	108
Durability grade	General purpose
Fire resistance level (frl) for insulation (minutes)	120 / 60 / 60

Austral Masonry Grey Block

Austral Masonry Grey Blocks are the ‘workhorses’ of the building industry, available in a variety of shapes and sizes to suit every kind of building project.

This range of blocks boasts a number of attractive features – they’re affordable, weather and termite resistant, they offer excellent sound and temperature insulation. They have a low environmental impact because they don’t deplete limited natural resources in their manufacture and because they’re cured in low-energy, temperature-controlled kilns.

This extensive selection includes solid and cored units, fractions, fire-rated blocks, lintels and special purpose units in all popular size formats.

	Grey Block 200mm range		
	Full Hollow	**Range Half**	**Half Height Hollow**
			
Length × width × height (mm)	390 × 190 × 190	190 × 190 × 190	390 × 90 × 190
Units per pallet	90* 90†	180* 144†	180* 180†
Approx weight (kg)	14.0* 14.8†	8.6* 8.5†	7.3* 7.1†
f’uc (MPa)	> 15	> 15	> 15

*Cairns product / †Ayr product

REFER

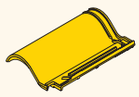
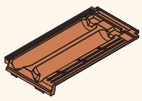
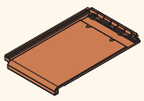
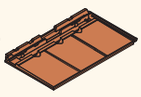
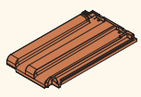
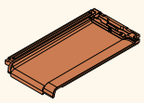
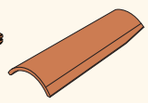
Anna Meares Velodrome
Cox Architecture
Folio 2, page 80

Note— All technical data correct at time of printing

Bristile Roofing

LA ESCANDELLA EUROPEAN CERAMIC ROOF TILES

Embrace the elegance of European ceramic roof tiles with La Escandella roof tiles from Bristile. Manufactured and tested to withstand a wide range of weather conditions, this diverse selection of tiles will add a refined touch to any building project.

	Curvado	**Curvado Glazed**	**Marseille**	**Planum**	**Visum3**	**Innova**	**Vienna**	**Medio Curva**
								
Min pitch	15° with Sarking, 20° without Sarking	15° with Sarking, 20° without Sarking	15° with Sarking, 20° without Sarking	15° with Sarking	25° with Proctor Membrane	15° with Sarking, 20° without Sarking	15° with Sarking, 20° without Sarking	10-27° with roof sheets, 27.1+° with batten installation
Optimum set out	400mm (+/- 5mm)	400mm (+/- 5mm)	398mm (+/- 5mm)	365mm (+/- 5mm)	187mm (+/- 3mm)	390mm (+5/- 75mm)	390mm (+5/- 75mm)	n/a
First batten (top of batten)	370mm	370mm	370mm	360mm	206mm	380mm	380mm	n/a
Dimensions	470mm × 286mm × 75mm	470mm × 286mm × 75mm	466mm × 260mm × 55mm	440mm × 280mm × 32mm	280mm × 480mm × 35mm	460mm × 255mm × 30mm	460mm × 255mm × 30mm	varies according to colour
Weight	3.9kg	3.9kg	3.6kg	3.5kg	3.85kg	3.4kg	3.4kg	varies according to colour
Layed	Straight Bonded	Straight Bonded	Cross Bonded	Cross Bonded	Cross Bonded*	Straight or Cross Bonded	Straight Bonded	Straight Bonded
Tiles per m2	11.4	11.4	11.1	11.7	11.9	12.1	12.1	varies according to colour
Cuts per LM	3	3	3	3.5	8	3	3	16
Ridges per LM	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Batten per m2	2.9	2.9	2.9	3.2	5.8	2.9	2.9	2.9

*(water-course high bead in line with central frog)

Hamlet Paver

Whether for large-scale urban projects or contemporary Australian residential design, the hard-wearing Hamlet Paver collection is perfectly suited for use indoors or out. These durable clay pavers can withstand heavy loads, are resistant to abrasion and offer a slip- and skid-resistant surface.

These qualities and the pavers' colour-fast construction mean that the Hamlet Paver will stand the test of time in any application. The Hamlet Paver is available in three renowned Bowral Brick colours – Ash, Blue and Sepia – to complement your design. They are specially sized – 230 x 76 x 55mm – creating a distinctive

	Ash	**Blue**	**Sepia**
			
Length × width × height (mm)	230 × 76 × 55	230 × 76 × 55	230 × 76 × 55
Dimensional category	DPA1	DPA2	DPA1
Weight (kg)	1.8	1.8	1.8
Characteristic breaking load	> 5	> 6	> 5
24hr Cold water absorption (%)	< 6	< 6	< 6
Slip resistance category	V	V	V
Durability class	Exposure	Exposure	Exposure

REFER

Kensington Street
Turf Design Studio
in collaboration with
Jeppe Aagaard Andersen
Folio 2, page 56

Auswest Timbers Wormy Chestnut

No two pieces of Australian Wormy Chestnut are ever the same. Deep in the forests of southeastern Australia, the trees are affected by wildfires, years of drought, attack by insects, the occasional flood and winds so strong that the trees stunt their growth to cope with the environment. It is from these trees that Australian Wormy Chestnut is born, with each piece showing nature's signature. Deep red gum veins formed by fire, ambrosia beetle marks, pin holes and squiggly worm marks are all reflected in Australian Wormy Chestnut.

A suitable coating can be applied to enhance the grain and protect the floor, making it easier to maintain. An Australian Wormy Chestnut floor requires minimal maintenance and is the perfect choice for busy lifestyles. Australian Wormy Chestnut flooring will not collect dust or conceal dirt, making it a natural choice for asthma and hay fever sufferers.

REFER

Brickworks Pavilion
Russell & George
Folio 2, page 72

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