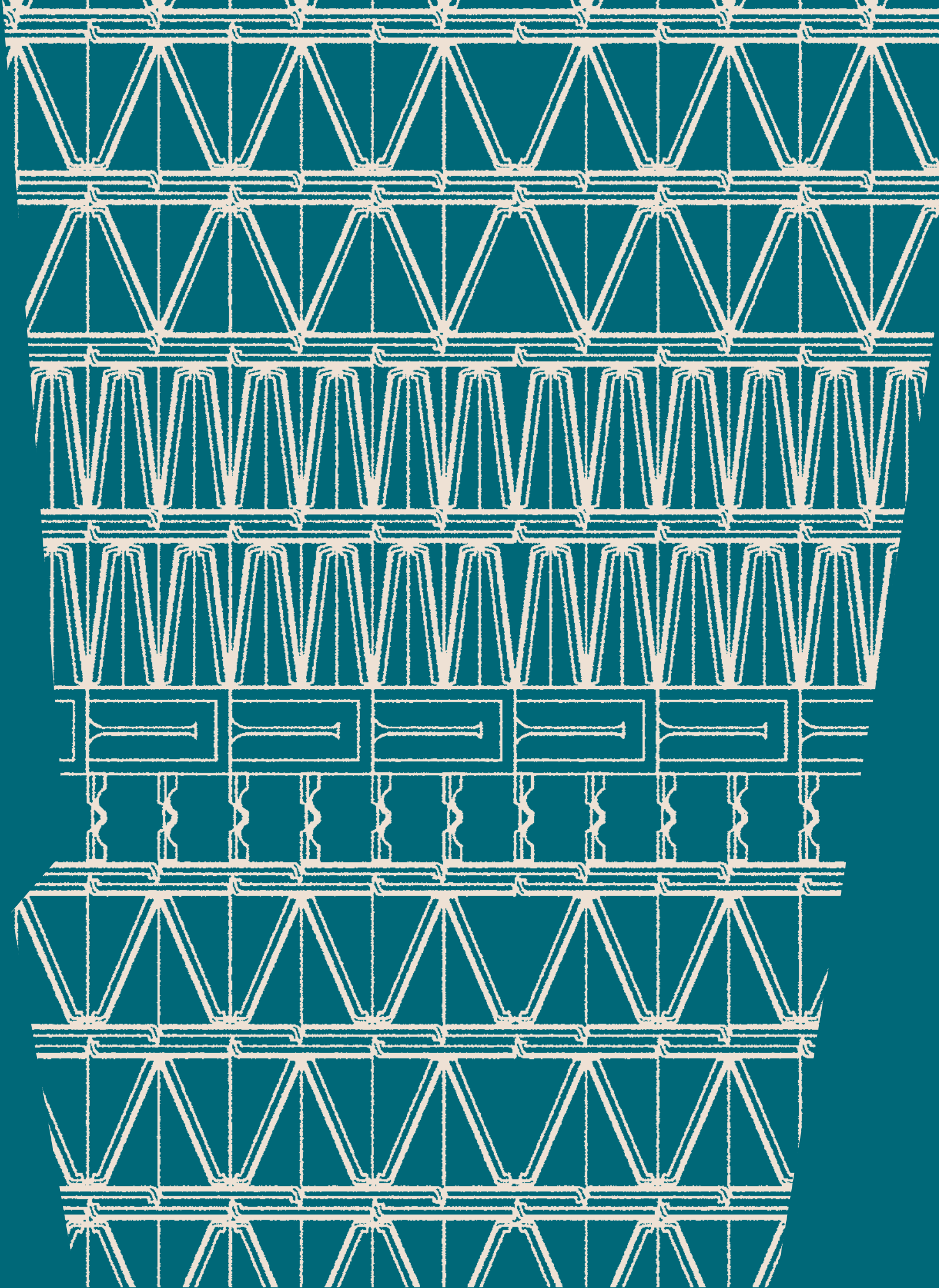


FOLIO

The elements of design. • A magazine by Brickworks.









Welcome to **FOLIO** magazine, now in its fourth edition. With each issue we become more fascinated by how materiality inspires and creates great architecture. A magazine by *Brickworks Building Products*, **FOLIO** sets out to unpick the design thinking behind a selection of exceptional buildings in order to understand how and why a specific material was used. Here, we consider brick, concrete, timber, tile and more, in the work of esteemed Australia-based architectural practices including *Partners Hill*, *Koichi Takada Architecture*, *iredale pedersen hook* and more. We also profile emerging practice, *Ritz & Ghougassian*.

As with previous issues, our editorial emphasis is on architectural ideas and, importantly, how these ideas are made real through material and construction.

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

We hope you enjoy the issue.

Lindsay Patridge AM

MANAGING DIRECTOR, BRICKWORKS LIMITED

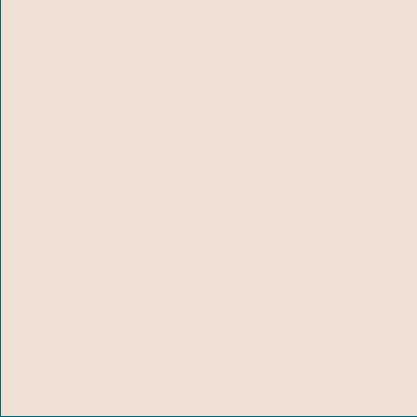
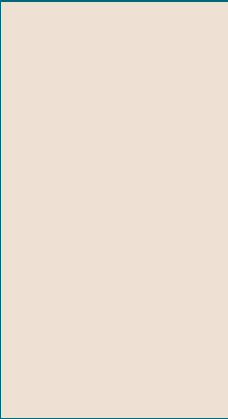
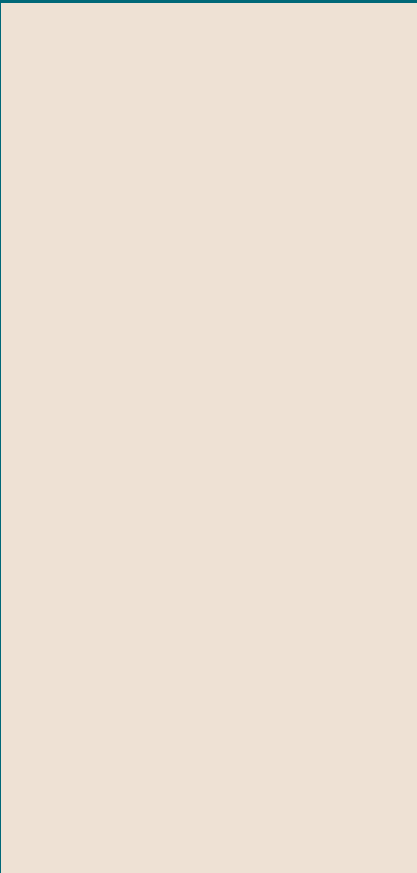
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Profile:



Emerging designers
Jean-Paul Ghougassian
and **Gilad Ritz** have
developed an impressively
coherent and consistent
body of work, crafting
surprisingly rich spaces
from simple materials.

Profile: Ritz & Ghougassian

The work of Melbourne practice Ritz and Ghougassian is formed out of the close collaboration between interior designer Jean-Paul Ghougassian and architect Gilad Ritz. In just over three and a half years, the studio has carved out a space for itself in a crowded industry through an output of materials-focused minimalism that is satisfyingly rich in texture and detail. As Jean-Paul said, 'Ideally when we set up our studio we didn't want to have one kind of project that we did over and over again.' The collaborators appear to have achieved that aim.

When I ask the pair about the common principles that define their work, their best stab at it is put forward by Ghougassian as the simple 'idea of creating an architectural language.' This difficulty in articulating what it is they hope their architecture will do is by no means a bad thing: you get the sense that with Ritz and Ghougassian, the medium of architecture and interiors should be, first and foremost, the material product itself as experienced by its users—and its representation a distant second.

The creation of space through form, a story of building envelopes fused to seamless interiors, is the substance of these works. 'The reason why we see eye to eye on a lot of things is that we don't approach projects from a traditional architect and interior designer standpoint, we approach it in a holistic manner where both of us are interested in both elements of the project... it's very interiors focused, and habitability is one of the key drivers in our projects,' as Gilad said.

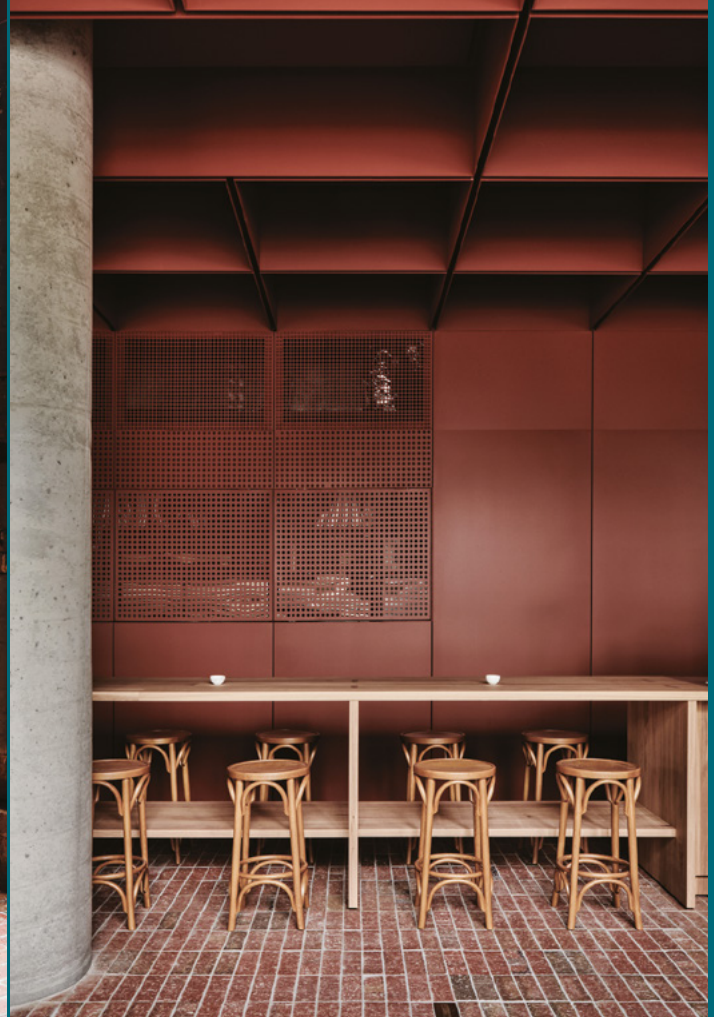
The Highbury Grove house is perhaps the most typical of the this approach so far, composed of a contemporary addition behind a modest Federation terrace frontage, one of a pair. As is common in many inner urban adaptation projects, Ritz and Ghougassian have sought to maintain the two front rooms of the original house and supplement them with a clean, pared-back extension to the rear. The transition from one kind of interior to another becomes part of the experience.

The rear extension to the house is formed from parallel walls of stacked blockwork up to a datum, and an alternative series of higher walls, set at 90 degrees above the datum. The shift in orientation of these planes allows for privacy from a public laneway at the ground level, and orientation to northern sunlight and views above, as experienced from the ground in this single-level house.

Materiality is central to all Ritz and Ghougassian designs. In this case, spotted gum timber and blockwork, combined with stone and polished concrete, form a restricted palette, one that is informed by local materials and integral finishes. The pair dislike applying finishes to surfaces and this has led to a predominance of blockwork, eucalyptus species and other natural materials across their modest folio. ►

Page 09, Top:
Materiality is key in Ritz & Ghougassian's design for Fitzroy Bentwood cafe, owned by coffee connoisseur and restaurateur Julien Moussi.

Below:
The cafe's red brick floors and russet-coloured steel panels and cushions reference and continue the colour palette of the original building's facade.





Page 10:

In keeping with their preference for simple materials un-obscured by paint or finishes, at Edsall Street, concrete masonry blocks rest on burnished concrete floors.

Page 11:

A view through to the dining room and eucalyptus cabinetry at Edsall Street.



“The pair dislike applying finishes to surfaces and this has led to a predominance of blockwork, eucalyptus species and other natural materials.”



Page 12, Top:
At Highbury Grove,
the courtyard is part of
the interior, merging the
within and the without.

Below:
Highbury Grove's
impressively minimalist
renovation is folded
behind a Federation-
style frontage.

Another signature move evident at Highbury Grove is the integration of the courtyard as part of the interior; the seamless transition between interior and exterior space is implied by the detailing of the architecture, and it is clear when viewing the plan that there is no imposed hierarchy of 'within' and 'without'.

The Edsall Street House is a variation on the same theme, with another restricted palette of stacked-bond blockwork ('modularity is a characteristic that we like,' says Gilad) and eucalyptus species combined with polished concrete and fine detailing. Like Highbury Grove, this project is based on the retention of an older house frontage, in this case a double-fronted weatherboard treated with a simple white paint finish. The pale blockwork extension to the rear creates an enclosed two-level volume through the introduction of layered walls set north to south and perpendicular to the 'front' house. This layering is used to great effect to build up levels of privacy and emphasise containment.

Once again the whole is animated by natural light, which plays on the minute variations in the stacking of the blockwork, infusing the whole with a sense of detail and complexity that is absent from the house as described in bare, simple drawings. Another aspect in common with the Highbury Grove House is the fact that the exterior space is a seamless extension of the interior and is detailed with just as much care. Large planes of glazing disappear into blockwork cavities, heightening the immediacy of the connection between interior and exterior, a neat detail that lends a spatial simplicity to the thresholds.

The balance of the Ritz and Ghougassian folio is focused on hospitality design, and the pair enjoy this kind of project. 'We use hospitality work as a testing ground, the six-month turnaround allows us to test ideas and investigate the use of new materials,' says Gilad. This is distinct from residential work, which can typically take three years or more to realise.

Bentwood, a café and restaurant interior located in the former Thonet showroom in Fitzroy, takes the firm's recognisable language in new directions. Absent in this fitout is the blockwork seen in the residential projects, and in its place the pair have explored the use of pressed red bricks for flooring (a contextual nod to the existing façade) and plate steel as a walling material, the latter finished in a simple industrial red primer to prevent rust and infuse the interior with a russet tone. Combined with the extensive use of timber, including in the No. 18 Thonet Chair used throughout, and a tobacco-coloured leather for upholstery, it makes the interior both warm and inviting.

Ritz and Ghougassian is still a young practice, but its folio is growing. While it seems unlikely that the pair will ever move entirely away from residential architecture and interiors, they both profess to have a desire to explore new types of architecture. Civic and public projects figure in their wish list, and a synagogue project is just on the horizon. In these new fields of operation, the pair will 'use the lessons learnt from previous projects to inform the new', as Gilad says. In this context, the real challenge for them will be to grow their capacity, and folio, while continuing to explore materiality, space and form with a sustained rigour. If they can achieve this, we can expect much from their planned move into new kinds of architecture and interiors. ●

SET IN STONE

JPW in collaboration with
the NSW Government Architect's Office
Anzac Memorial
Sydney, New South Wales

Page 15:

The addition of an underground exhibition space, lit naturally by an oculus, is central to Johnson Pilton Walker's renovation to the Anzac Memorial Centenary Project.





Page 16:

The original 1934 plan for the Anzac Memorial, Hyde Park, has finally been realised, more than 100 years after the war it commemorates.

Johnson Pilton Walker in collaboration with the NSW Government Architect's Office, has used stone, bronze, wood and water to realise architect Charles Dellitt's original vision for the Anzac Memorial in Sydney's Hyde Park.

Article **Stephen Lacey** Photography **Brett Boardman, Peter Bennetts, Matteo Salval**

In the years immediately after World War I, opinion was divided in Australia as to the appropriate form and function of war memorials: whether they should be traditionally monumental—civic objects in stone or bronze—or whether they should be infrastructure with a more pragmatic purpose, like halls and hospitals. Reflecting on this on ABC's Landline program, the late

professor Ken Inglis (author of *Sacred Places: War Memorials in the Australian Landscape*) said, 'well the cold stone survived, nearly always, and the halls didn't...'

The granite-clad Anzac Memorial in Hyde Park, Sydney, a traditional monument from conception, is a survivor. The original vision of its designers architect

Bruce Dellit and artist, George Rayner Hoff, however, has only now been fully realised.

Before World War I had even come to an end, the citizens of New South Wales had donated £60,000 towards the construction of a state memorial. Architect Charles Bruce Dellit won the 1929 competition for its design, opting to build a sculptural monument in the Art Deco style. ►

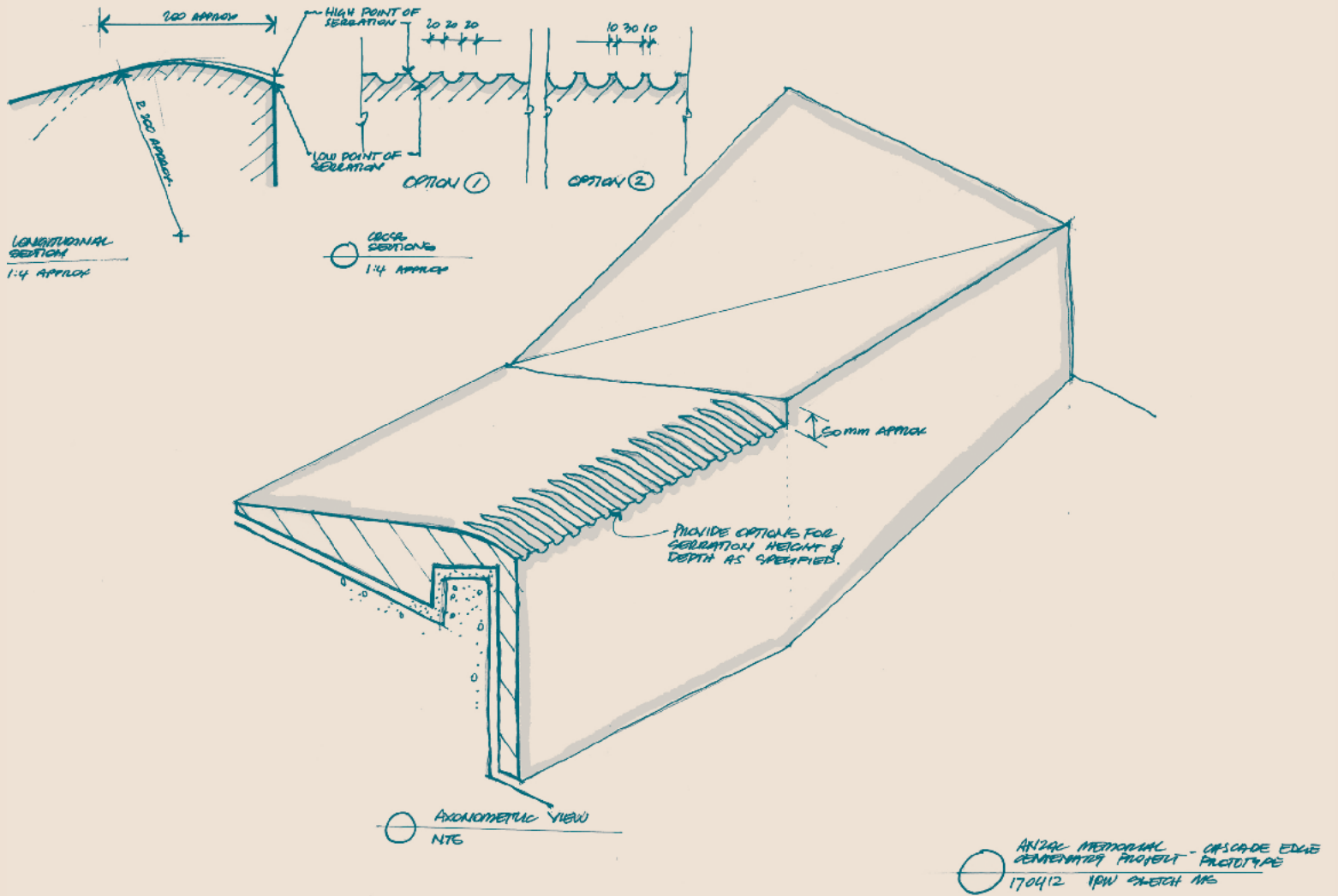




Page 18:
Looking down
through the oculus to
the Hall of Service.

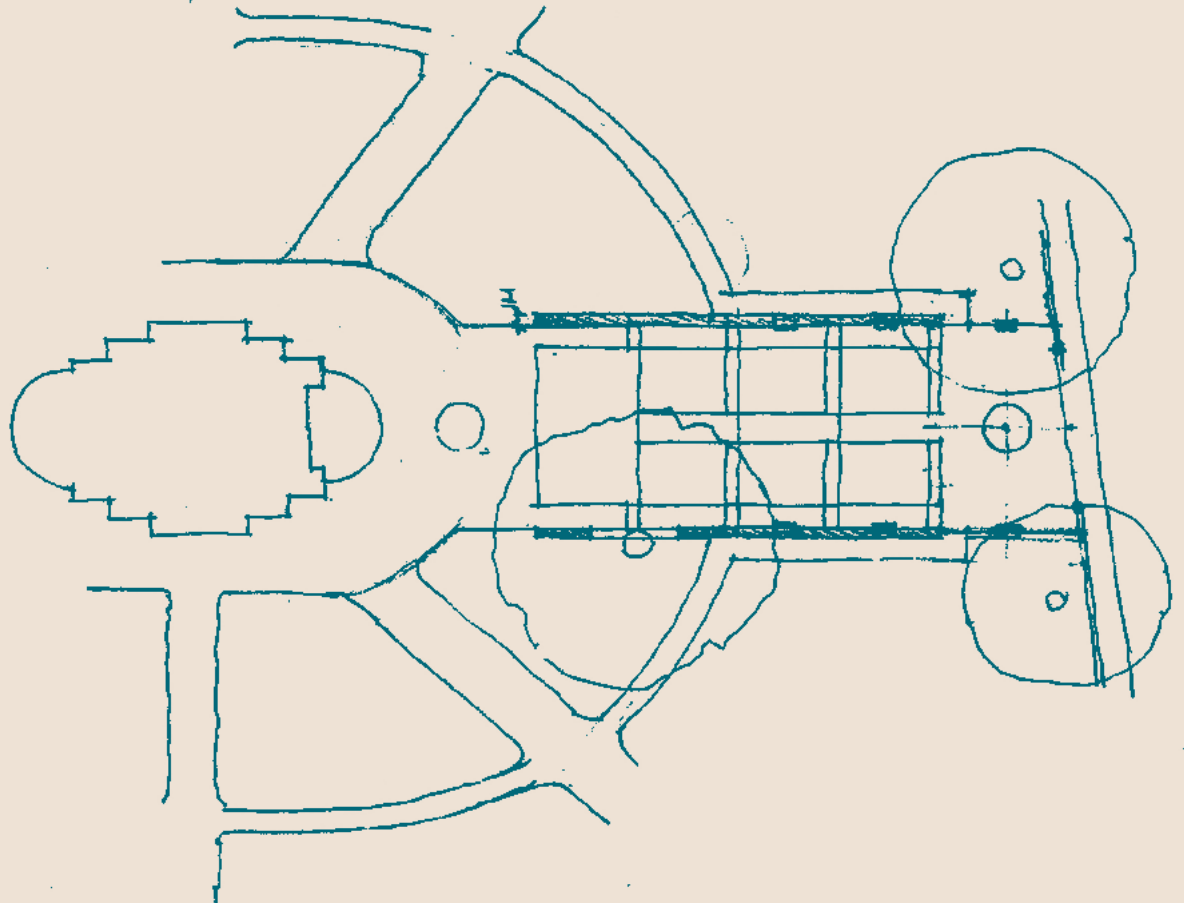
Page 19:
The underground Hall
of Service features
a contemplative
artwork by Fiona Hall.





Page 20, Top:
Constructing the serrated
edge of the stone for
the water cascades.
Below:
Granite weir
exfoliation.

Page 21, Top:
Detail of the cascade
stone serration
by Matteo Salval.
Below:
Precinct sketch
by Matteo Salval.





Not everyone was happy with the location of the memorial. Relatives of the deceased soldiers protested because they felt the Hyde Park site would soon be overshadowed by city buildings. They were proved to be correct, but their concerns fell on deaf ears.

When the memorial officially opened in 1934, it was missing Dellit's original vision for a cascading fountain to the south. The Great Depression meant that there was little money left over for grand statements. The Anzac Memorial would have remained one of Sydney's unfinished projects (along with St Mary's Cathedral across the park, which only had its sandstone spires realised in 2000)

had it not been for The Centenary Project, a bold scheme announced on 4 August, 2014; 100 years later.

Sydney architects Johnson Pilton Walker (JPW) were chosen to complete Dellit's vision, based on their experience in designing public and cultural spaces including the Australian War Memorial Eastern Precinct in Canberra.

The brief called for the creation of Dellit's water cascade and an underground education and interpretive centre connected to the existing memorial. The architects revised the brief to introduce a southern entry point through the middle of the cascade, creating a powerful sense of arrival.

Approaching the memorial for the first time, I was struck by the noise of the water, tumbling from level to level, gurgling with the thrum of the city. From Liverpool Street, the cascade offers a granite and water podium from which the memorial emerges dramatically against the sky.

'The granite, its finish, detailing, and large format composition are instrumental to this new, monumental vista of the memorial,' says project architect Matteo Salval.

Dellit left no detailed drawings for his scheme, so Salval and his team had only a single watercolour painting to work from. One of the team's first challenges was finding granite to match the cladding of the existing memorial. ►

Page 22:

Artist Fiona Hall hand-distressed metal plaques to give them a weathered patina. The plaques contain the names of living places for New South Wales' World War I soldiers.

Page 23, Top:

Detail of precast concrete panels in the Hall of Service.

Below:

Hall's *The Home Soil* displays 1701 soil samples. Each is displayed with its place name in hand-carved glass vessels.





The original granite, from Tarana, New South Wales, was a pink, medium-grained stone that had also been used on the walls of the Sydney Opera House. Nowadays, the Tarana quarry is abandoned and overgrown. A similar granite was discovered in a quarry in Esperance, Western Australia, operated by UrbanStone. 'It has good consistency throughout, and the colour and texture complement the memorial very well,' says Salval.

The resemblance of the cascade to Dellit's watercolour vision is impressive. The major difference is of course the central entry axis that splits the cascade in two. And, while Dellit pictured a single 'rapid' between each of the four plateaus, there are now three.

The careful removal of a gargantuan Morton Bay Fig that previously eclipsed the view to the south has also enhanced the memorial. 'Relocating the tree 60 metres to the west took a year of preparation but only one day to do. And what a difference it makes,' says Salval.

Descending the walkway, which is both the central axis of the memorial and the axis through the park that aligns with Macquarie Street and the Opera House, the path slowly drops between the granite strata of the water feature's inside walls. The sounds of the city are silenced.

Within the newly created Hall of Service below, Fiona Hall's multimedia piece *The Home Soil* dominates the space. It continues in the tradition of Dellit and Hoff, who integrated art and architecture seamlessly.

Hall's work comprises 1701 soil samples, collected by volunteers from places around New South Wales where diggers had enlisted. The samples are wall-mounted in glass jars and surrounded by bronze plates. Each plate has been hand-finished

by Hall using a titanium oxide stain, so that no two are the same.

The flooring is honed limestone sourced from near the border of Italy and Slovenia, and laid in an irregular pattern to match the original floor of the memorial. 'We were looking at using Australian marbles but they were all very crystalline,' Salval explains.

Soil collected from significant overseas sites of New South Wales military service was also inlaid in the floor directly beneath the oculus; a circular void that allows light and air to circulate and affords a striking view of the memorial above. 'It's a visual connection,' says Salval. 'This building hinges on such connections. We wanted to create a naturally ventilated space that is part of the public domain above.'

During the 1920s, there was much public debate over the memorial's use. One suggestion, recorded briefly in a union newspaper, was for a swimming pool in the basement to benefit the city workers. While Salval's brief didn't call for a subterranean pool, it did stipulate for the provision of underground exhibition and education spaces. The exhibition room showcases part of the memorial's collection of some 6000 objects.

Both of these ancillary spaces, plus a military library, make use of rich red jarrah panelling and flooring from Western Australia. 'The stock of jarrah is very limited and we were fortunate enough to secure this lot,' Salval says. 'These materials—jarrah, bronze, limestone and granite—all reference the memorial. The existing informs the new and the new complements the existing.'

'We've chosen a noble material palette. A palette that is timeless, like the sacrifice made by the men and women who served their country. It's eternal.' ●

To harmonise the new subterranean entrance and cascades with the original stone used in the 1930s construction, which is no longer in use, the architects found a close match in the depth and texture of UrbanStone's Desert Brown stone, quarried in Esperance, Western Australia. Along the walkway to the underground exhibition area, Desert Brown honed stone was used in a standard size, while around the cascades, the design utilised stone of over one-metre square. *For more information on the UrbanStone Commercial range see page 108.*





Terracotta Transformation

In a small commercial building in Surry Hills, *Raffaello* and *Luigi Rosselli* have gone to extraordinary lengths to reimagine the ubiquitous terracotta roof tile as something far from ordinary.

The Beehive.

Sydney, NSW.



Article **Peter Salhani** Photography **Callum Coombe, Ben Hosking, Prue Roscoe**

The Beehive is a father-and-son project by architects Luigi and Raffaello Rosselli. Each runs their own practice from this small commercial building, whose name is playfully derived from its cellular brise-soleil, composed of salvaged terracotta roof tiles. In what has become the building signature, the roof tiles are stacked vertically against the four-storey facade, performing the vital task of filtering the hot western sun and helping cool the interiors.

Raffaello was project architect, and Luigi his 'informed client'. Having acquired an empty infill site in a heritage row, they started looking for a material waste stream with no existing re-use market. Raffaello's emerging practice is dedicated to material re-use in construction, furniture and linings.

'I wanted to take things further, and integrate a recycled material into the structure, so when we found out that terracotta roof tiles have no re-use market, we got really excited,' says Raffaello. 'Out-of-manufacture roof tiles are collected in Sydney, but newer tiles have no market value—they're actually considered a cost—and inevitably end up in landfill. That could change with rising tip costs,' says Raffaello.

They didn't have far to search. A client of Luigi's wanted to replace the terracotta roof of their large house with slate, so they arranged for the builder to remove the roof tiles carefully and take them to Surry Hills. On site, they played with the roof tiles to resolve the pattern, structural steel tiebacks and aesthetics for the facade's curve, where it gently bends around a paperbark tree.

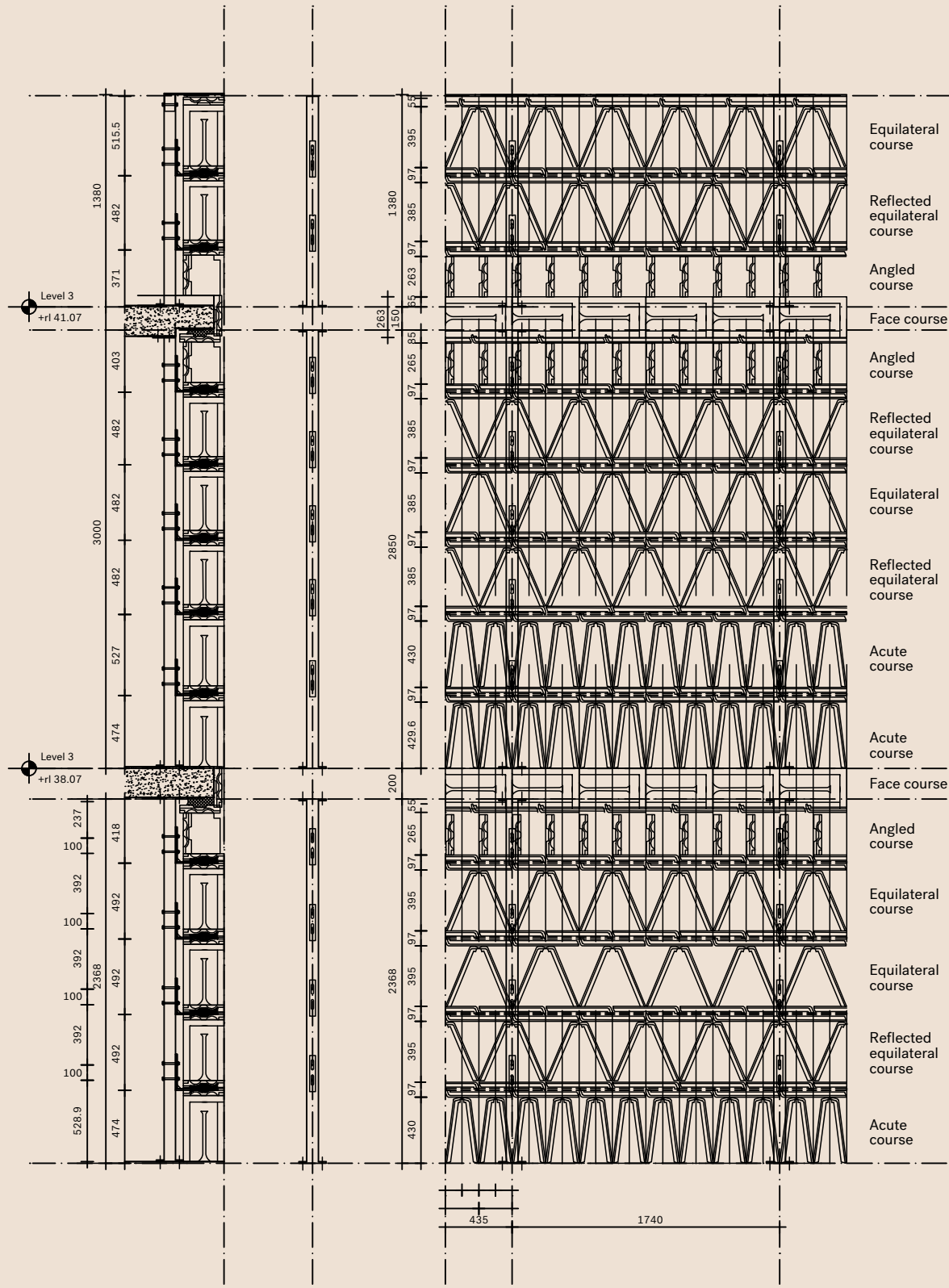
How do they perform? 'Brilliantly. They block a lot of the hot sun, and because the screen is a tile deep, it doesn't get hot, or radiate heat internally. The view out is more interesting, and there's another effect we hadn't counted on. Terracotta absorbs moisture from nighttime condensation and releases it during the day, so it has a beautiful cooling effect in summer,' Raffaello explains.

Luigi turned surplus roof tiles from the facade into an L-shaped bookshelf for his studio library, cordoning off a meeting space. It's furnished with a long table made by Raffaello using black recycled plastic swirled with blue flecks, waxed to a smooth finish. Its A-Joint legs are by industrial designer Henry Wilson, who devised this joint to minimise tooling and parts, while maximising strength. ►



Page 28:
The terracotta roof tiles block sun and help regulate office temperature.

Page 29:
Old fence boards were used as formwork for the overhanging concrete awning, leaving a striated pattern.



Page 30:
The facade set out
shows the variety
of tiling patterns.

Page 31:
Inspired by the thinking
of his father (and client),
Raffaello found poetry
in older materials.



Chairs around the table are vintage Luigi, designed decades ago for restaurateur Steve Manfredi.

‘Nothing from the old office was wasted,’ says Luigi. ‘We kept all the desks, repainted some, and had a few identical new ones made.’ Other recycled elements include a cute ‘keyhole’ window and its steel mould, with which Luigi plans to make a coffee table. A green rooftop above his studio is also in the planning. ‘Reusing materials has nearly zero embodied energy. It’s a very important step in reducing the impact of construction, and it’s something we do in all our work,’ says Luigi.

Luigi Rosselli has built his practice on the artful recycling of old buildings. ‘People come to us not sure if they should demolish or keep, and almost always we say, “keep it”. That’s our ethic. If it’s usable, and not falling down, we say keep and improve what you already have. Many would say that it’s cheaper to demolish a house then rebuild it. But if there was a demolition tax – which there should be – to put a value on materials thrown into landfill, these big houses would be too expensive to demolish.’

His thinking clearly took root in young Raffaello, whose early material upcycling include the Tinshed House in Redfern NSW, and Plastic Palace—an installation

to raise awareness about the plastic waste crisis in the NSW border town of Albury, built from five weeks’ worth of local hard plastics (mostly toys, outdoor furniture, car bumpers, crates and boxes), sorted by residents then crushed into bales.

‘There wasn’t a lot of precedent when we started the project. But I’ve always been interested in the qualities of old materials, like roof tiles. Their life is expressed through the little nicks and imperfections, and lichen. There’s a poetry to that, that can’t be mass produced,’ says Raffaello. ‘As architects, we can set the value of materials through our work. I think you can make any material beautiful.’ ●



“Terracotta absorbs moisture from nighttime condensation and releases it during the day, so it has a beautiful cooling effect in summer.”

**Page 33:**

The theme of up-cycling continues to a keyhole-shaped window, which is formed from a prototype for a window in another design.

Page 34:

Leftover terracotta roof tiles are re-purposed into a pigeon-hole style bookcase.



In this repurposing project, father and son duo Luigi and Raffaello Rosselli find a number of delightfully inventive ways to use terracotta roof tiles: from the brise-soleil covering the facade, which gives the building its name, to the studio's bookcases constructed with leftover tiles. Bristile Roofing's La Escandella range continues the classic traditions of European tile making, offering a range of elegant tiles that could be used for a number of conventional- or experimental-projects. *For more information on Bristile Roofing's tile range see page 109.*

Partners Hill
Daylesford Longhouse
Daylesford, Victoria

Page 35:
The indoor garden benefits
from the shed's translucent
skin, glass-reinforced
corrugated plastic.

CULTIVATED





COMFORT

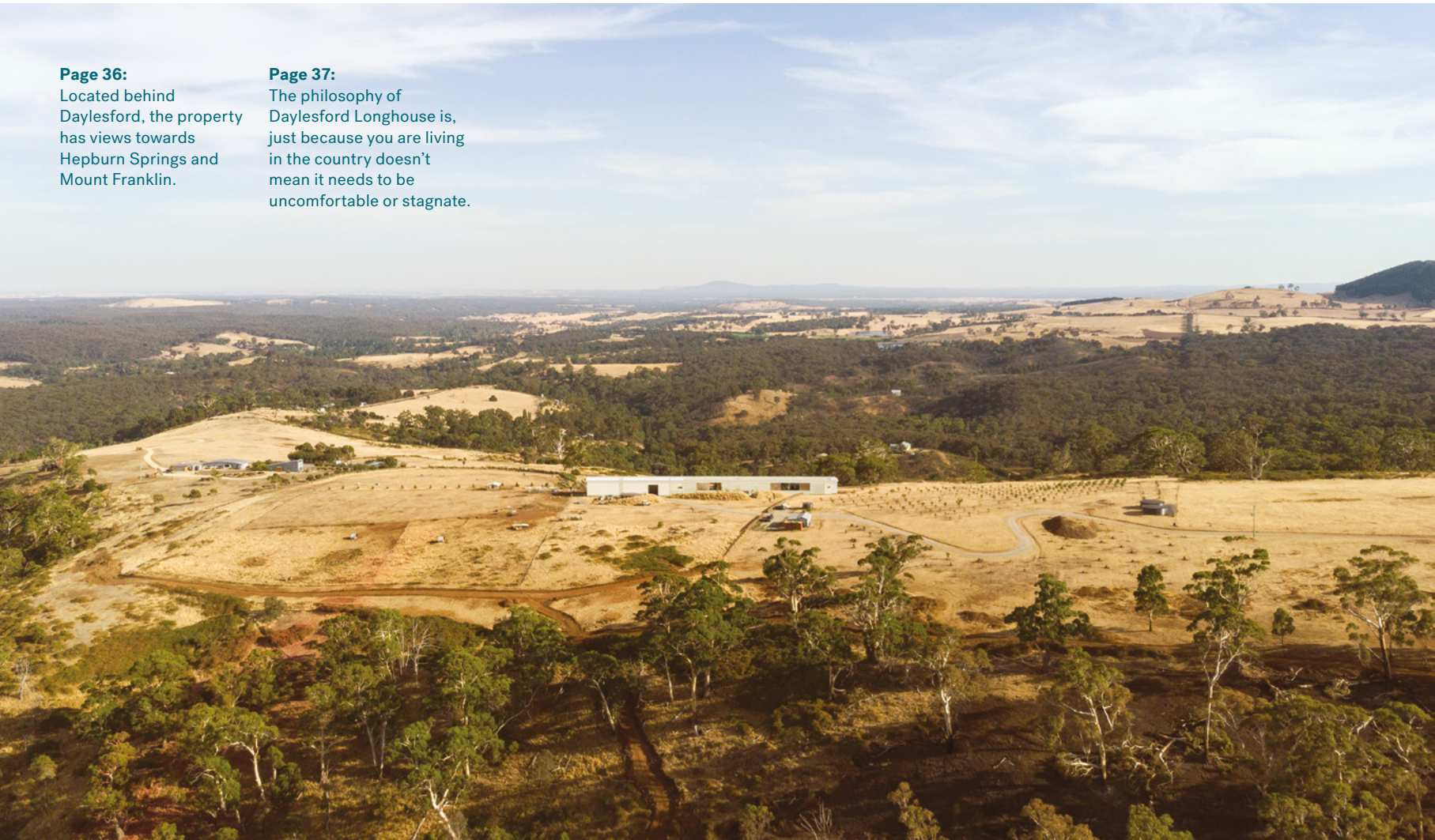
The Longhouse in Daylesford carefully calibrates domestic pleasures with the productive rural activities of a working farm and cooking school.

Page 36:

Located behind
Daylesford, the property
has views towards
Hepburn Springs and
Mount Franklin.

Page 37:

The philosophy of
Daylesford Longhouse is,
just because you are living
in the country doesn't
mean it needs to be
uncomfortable or stagnate.



On a late winter's day with full sun and a brisk breeze, the sliding side panels of a vast Ampelite shed were open. A large almond tree – the first fruit tree to blossom – was vivid white and buzzing with bees. Shadows of birds moved across the roof with a clatter of claws. A pair of masked lapwings voiced their distinctive call. They typically inhabit large grassy areas near open water but have taken to nesting on flat roofs. The Longhouse roof isn't flat, but perhaps it seemed like an expanse of reflective water from above. Within, all is glowing, leafy-green and very comfortable

The Longhouse is a 110-metre-long big shed sheltering a sequence of smaller buildings and gardens. Trace Streeter and Ronnen Goren, the couple who built the Longhouse, have lived in it for a couple of years. For three years prior to that, while they were building the house and its

garden, they lived in nearby Daylesford. What they have built serves as a cooking school, productive garden and living space for themselves, friends and WWOOFers (Willing Workers On Organic Farms).

Goren is a graphic designer who still works in Melbourne as a founding partner of 25 years with Studio Ongarato. Streeter has relocated from Queensland. 'Part of Trace moving from Queensland to Melbourne depended on finding a farm; finding the right site,' explains Goren. 'Coming from Brisbane he wanted a different experience of climate and landscape.' As Goren points out, the week before my arrival it had snowed but outside the Longhouse is a sunny green landscape.

Architect Timothy Hill of Partners Hill was involved from the outset. 'We were interested in siting the building, especially as we were very interested in the sequencing, the experience of approaching the building,' explains Hill.

The relationships of the nested buildings to the surrounding land and wider landscape beyond is key to the project. Lying just off the crest of a hill with expansive views, the Longhouse is approached from the rise behind. A switchback road spreads and shifts the surrounding landscape before you as you approach, until finally swinging perpendicular to a long shed, nestled behind grassed mounds and tanks. From outside Mount Franklin is framed in the far distance by the open sliding doors on either side of the shed.

'Ultimately, the idea for the shed structure and the internal spaces comes out of the program and the site,' says Goren. 'The views are wonderful but being so exposed means we needed protection.' And it was not just humans that needed protecting. Goren and Streeter wanted to grow fruit, vegetables and herbs, as well as ornamental favorites. These plantings would also need shelter. ►

Article Jo Russell-Clarke Photography Rory Gardiner





Page 38:

The white-glazed brick set in terracotta-pink mortar is at once, both cheekily reflective and the most solid and protective material in the Longhouse.

Page 39, Left:

Hexagonal patterned tiles and blue accents modestly decorate the lounge and dining room in the eastern end of the building.

Right:

In the west end of the building, the vestibule and storage area for visiting WOOFers and farm hands is designed with practicality in mind.



Inside the Longhouse are rows of veggies fronted with herbs, scrambling passionfruit vines and secured grapes, fruit and citrus trees, including a massive avocado and figs espaliered against translucent walls.

It made sense to protect separate, smaller buildings within a huge shed. The shed could then also shield planting, affording light and views while being able to open up to breezes when the weather was mild. But the architect also saw the project as a chance to rethink the way we relate to landscape. ‘Doing my first site visit in summer London clothes, straight off a plane, was very revealing,’ says Hill. ‘It was blisteringly cold.’

The site presented challenges to cultivation, too, including from the attentions of kangaroos, cockatoos and other animals. These non-human residents were part of what drew Hill’s clients to the site but they would also destroy any new planting that survived exposure to wind and weather.

‘We saw that neighbours were doing very defensive things to cope with the conditions,’ recalls Hill. ‘If we look at patterns of colonial and post-colonial farming compared with people who have

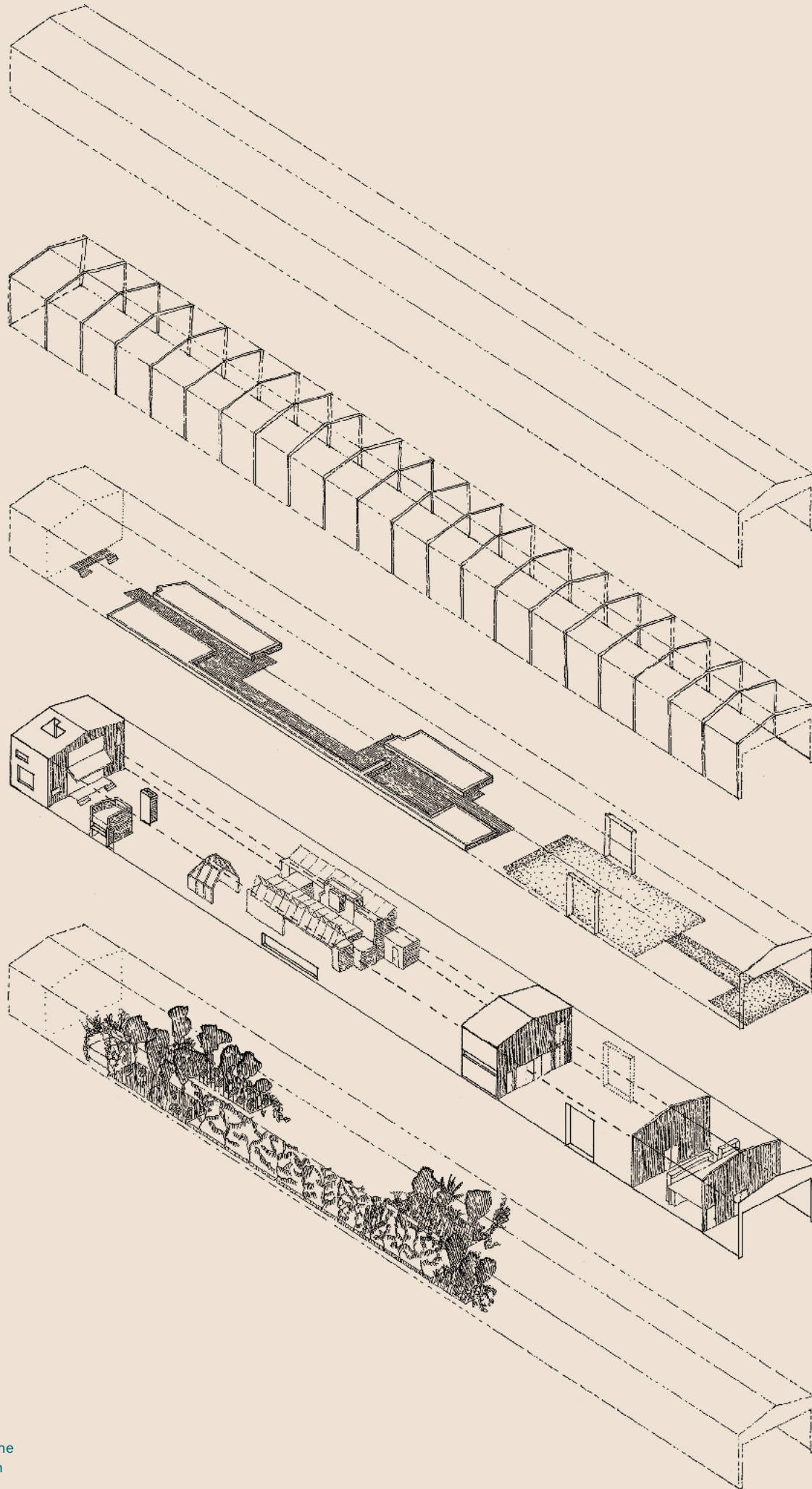
always farmed in harsh environments—Tunisia and the top of Britain for example—you see the Australian tendency to scatter buildings in the landscape.’ Screen planting then makes buildings and their gardens very inward-focused retreats from a harsh environment. ‘In the Australian lexicon there’s a lot of romancing of sheds and cottages,’ says Hill. Cottages are good for gazing out of at a landscape that is a place of beauty and fear. They separate you from it. ‘At the Longhouse you can spend a lot of time ‘inside’ and yet be close to the landscape. You end up spending much more time aware of the landscape. In mid-winter, on a stormy night, you can be in your socks going to the ‘outside’ bathroom!’

Protection then is layered. Within the vast shed, a sequence of smaller buildings of brick and solid cedar includes the residential lodge at the far eastern end, the bathhouse, the kitchen and the stableman or interior gatehouse. The bathhouse and kitchen feature white-glazed brick against earthy terracotta-pink mortar, so that even while being the most solid and protective material of

the Longhouse, the effect is cheerfully reflective. In one sweeping view, the white of blossom and bricks, wispy clouds and flocking cockatoos can be taken in.

Looking along the inside airy volume, through the open walls to the valley beyond, Goren notes the early trips he and Streeter made around the area. ‘Travelling around the countryside looking at potential sites, the forms that stand out in the landscape are old homestead chimneys.’ The brick chimneys lingered in their minds when considering the design of their own hearth and home.

Three different bricklayers were involved in the project. Partners Hill had worked previously with bricklayers Elvis & Rose in Brisbane and brought them down to carry out the complex geometry of the bathhouse. Two brothers from John Tanzen & Sons Bricklayers, who had learnt their trade from their German father and grandfather, built the major wall of kitchen brickwork and hearth. The wall houses various ovens, wood cooktops and a grill and has wonderful niches and overhang. ►



Page 40:
Skeleton sketches of the longhouse show the compartmentalisation of areas based on function with the indoor garden and kitchen making up the middle.

Goren recalls the bricklayers living on site for five weeks while they completed the intricate work. At the end of the space is a bread-baking oven designed by Alan Scott and built by his son Nick Scott. The thermal mass and shape create the perfect oven that will hold a falling temperature for over a week.

Goren gestures to the bright landscape falling away beyond us to Mount Franklin, and then the glowing confines of the long interior. 'In summer when the grass has browned outside, there is a strong contrast with the greenery visible inside the Longhouse,' he admits, 'but there is a lot of connection. It's layered.'

Despite drawing on long traditions of greenhouse planting and terrarium-like closed systems, the Longhouse is not intended to be a biodome. Connections to the outside are vital for healthy planting, including air movement and insect pollination. Closed systems can also enable disease and pests to flourish. A moth infestation destroyed a honeysuckle that originally bloomed over the tea-house timber porch of the lodge. There is ongoing trial and error with species and maintenance. Some espaliered fruit trees proved just too congested, even with heavy pruning.

For Hill this is about active, civilised engagement with the countryside. To be immersed in landscape and so visibly connected yet protected 'creates really deep comfort.' The Longhouse isn't a weekend. It is not about temporary experience of a deliberately 'rude' inhabitation. Just because you are living in the country doesn't mean you need to be uncomfortable or stagnate. 'The imagination is engaged when you invite it to make comparisons,' says Hill. 'Rough with smooth, tiny with massive' and, of course, interior and exterior, light and shade, the long thin skin of the pre-fabricated shed and the solidly crafted interior rooms of raw timber and bright brick.

The goal of the Longhouse project is to be as self-supporting as possible. 'We're not evangelical about it,' Goren adds, although they are working toward a system that hopes to grow and recycle everything on site.


'We have a deep litter system where the manure of animals at one end of the site is collected and aged as compost, feeding back into the planting, so that essentially everything cycles through as part of a giant composting system.' The whole building project is based on passive house principles.

The concept of the Longhouse draws on archetypes, from Viking to Asian to various indigenous architectures. But central to the type is an idea of community and extended, non-nuclear family, particularly around cooking, meals and the socialisation and conversation that happens with that.

Goren remembers the Borneo episode of Anthony Bourdain's *Parts Unknown* where the chef returns to a longhouse he had visited 10 years earlier in Sarawak during a formative time in his life. 'Community living may not always be the best thing though' laughs Goren, recalling that Bourdain's communal experience included the peer pressure of drinking until passing out.

The Longhouse is where Goren and Streeter expect to be for the long haul. They are still experimenting and expect to find more opportunities to grow and prepare food, entertain friends, host events and actively expand on projects. 'Perhaps we could have thought through all the stairs,' muses Goren as he imagines growing old in the Longhouse. But the beauty of the design is that it can easily grow and adapt. 'We can ramp up the number of WOOF-ERs and helpers who stay here, or even fit out the west end with a more age-friendly living space later on,' he shrugs.

Considering the overall openness of the Longhouse, it is surprising that the shed only has one door. But the home within and the ideas running through the expanded building and farming project are still evolving, opening new opportunities for both client and architect. The Longhouse is the start of a new long story. ●



As the design of Daylesford Longhouse shows, white-glazed brick can be rustic too. In the mezzanine and semi-outdoor bathhouse, Austral Bricks Burlesque bricks in Indulgent White is set within an earthy terracotta-pink mortar, creating a striking contrast while softening the high gloss finish of the brick to reflect the character of the country home. For more information on Austral Bricks products see page 106.

FUTURE

Koichi Takada Architects
Arc
Sydney, NSW

Pages 43 & 44:

To the surprise of architects Kocihi Takada, the crowning glory of their Arc tower was not its 'crown' at all but a carefully crafted brick podium.

HERITAGE





A mixed-use tower in Sydney makes unlikely use of fine brick craftsmanship at dramatic scale to create a building both before and beyond its time.

Article **Stephen Todd**

Photography **Tom Ferguson, Martin Mischkulnig, Martin Siegner, Simon Wood**

Waiting to meet Koichi Takada outside his recently-completed Arc residential building in downtown Sydney, I'm watching the sun cast deep shadows across the stepped brickwork casements of its tiered arch facade. By watery winter daylight, the effect is gently mesmerising; it's easy to envisage the crisp, graphic aspect that summer sun will create.

'We wanted to have something heavy that would define the podium,' explains Takada when he walks up looking spiffy in skinny black jeans and trainers.

'But it was also very important that this new building relate to the existing streetscape, especially heritage buildings like the Andrews Brothers warehouse and the Red Cross building,' he says, indicating respectively the robust Federation and Art Deco structures to either side.

In order to align with these neighbouring heritage facades, the vertically elongated, stacked archways of Arc's split podium stretch six stories on one side, eight on the other. The two podium volumes create a public arcade and laneway with retail and hospitality tenancies at ground level, animating a new precinct

on the Darling Harbour side of the CBD.

Takada points out how the elegant brick arches echo the ribbing of the steel and glass towers that are placed perpendicular to the podiums, ascending from the Kent Street and Clarence Street lobbies. Twenty-eight floors above, rooftop bar and pool decks are sheltered beneath the ribs as they curve and meet to describe elegant elliptical arcs above revellers' heads.

'We'd thought that what we call the "crowns" of the structure, those steel arches that scoop over the tops, would add the "wow" factor,' Takada admits, 'but in fact it's all been about the brick podiums. ►'

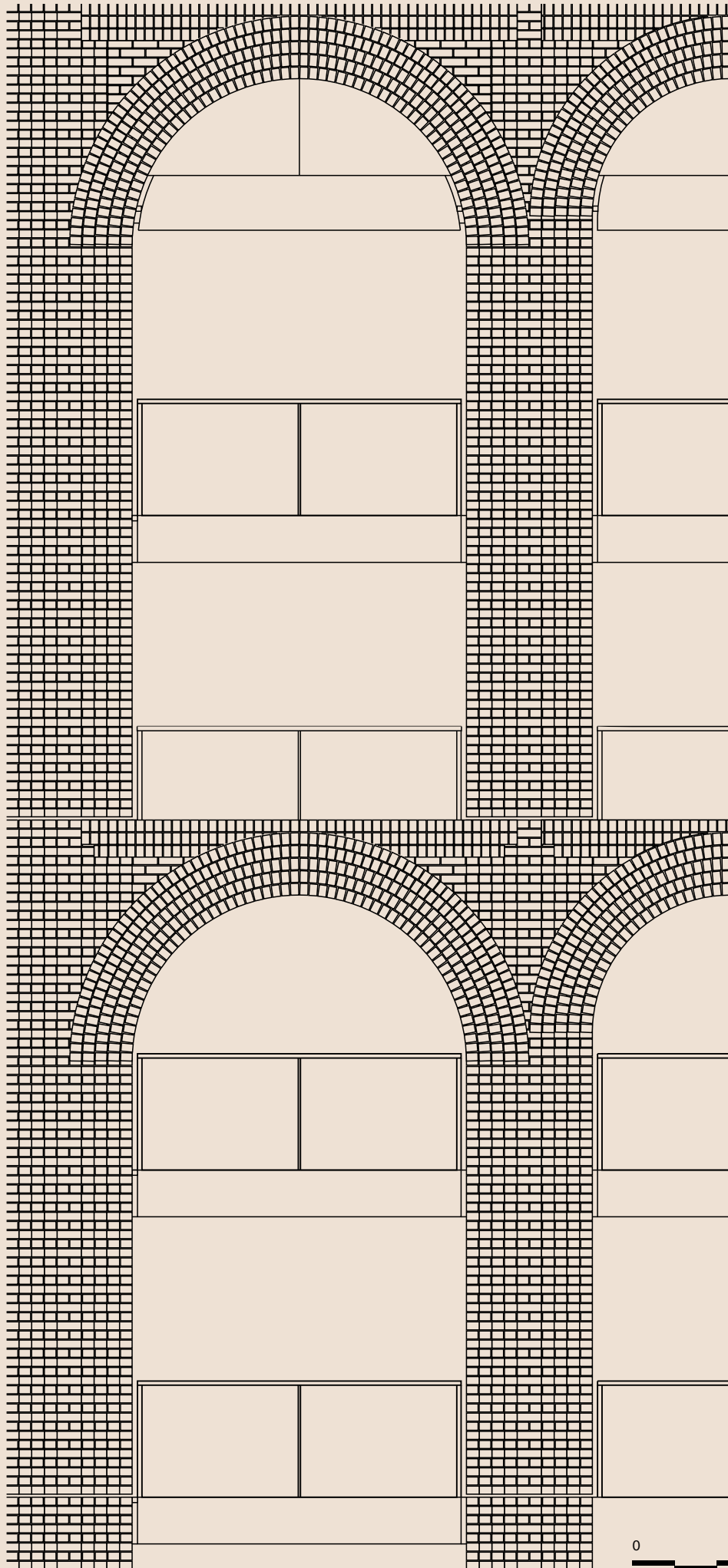


Page 46, Top:
Skittle Lane, a restored
19th century lane that
connects Clarence and
Kent Streets, bifurcates
the building.

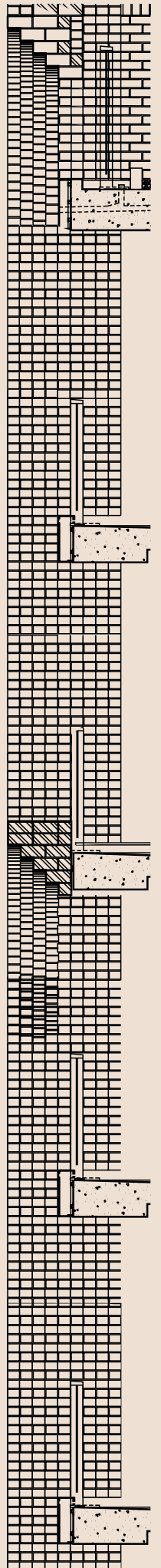
Right:
The bulk of the
26-storey tower is a
lighter, finer materiality
of steel and glass.

Left:
Corbelled brick arches
and lintels protrude
in stepped layers giving
the brick archways
a bevelled edge.

Page 47:
Kent Street
podium detail.



0 1m





Page 48:
Reflect by Ramus
Illumination, a public
art installation
in Skittle Lane.

Because we'd gone to such great lengths to blend into the heritage setting, I'd anticipated that people would hardly notice the base, or that they'd think it had always been there.'

In fact, it's the hand-crafting of some 300,000 ochre bricks into Arc's sculptural, bifurcated podium that is driving national and international attention. Initially tendered as a modular precast facade of faux brickwork, Hutchinson Builders chose to revert to authentic brickwork, delivering an outstanding example of classic masonry; future heritage.

The attention to details is exemplary.

The arches and lintels are dramatically corbelled, each brick course cantilevering 50 percent beyond the brick below, which is greater than the Australian Standard and required complex engineering. Extensive colour testing of high strength mortars was carried out to develop a bespoke cement that would visually as well as physically tie the carefully selected bricks together.

The building has been listed for prestigious accolades including longlisted for a Dezeen Award in the Housing category and a World Architecture Festival award in the Mixed Use section, in which it was Highly Commended.

Ascending one tower via a bank of transparent glass elevators, Takada points out how it doubles as a light well, effectively flooding the building's deep core in daylight. Each of the luxury apartments or serviced suites has a generous balcony, and rows of high windows along the interior landing allow for effective cross-ventilation while ensuring privacy. A full-height internal atrium further facilitates the movement of air through the building and funnels daylight down to the base.

For all its very evident gestural grandeur, Arc has a nuanced, humanist sensibility. As Koichi Takada Architects moves into its second decade of practice, these seem to be turning into the core values expressed through most of its buildings.

Takada, who was born in Tokyo in 1971 at the height of Japan's economic 'miracle' years, studied architecture at the City University of New York, then at London's Architectural Association School of Architecture. The first consolidated his love of modernism, while the second introduced him to the shape-shifting possibilities of fluid architecture as embodied in the work of Rem Koolhaas and Zaha Hadid, both alumni and lecturers at the AA during Takada's time there.

In 1997 he moved to Sydney to work on the international competition for the Museum of Contemporary Art, and decided to stay. 'As soon as I landed, I felt immediately at home,' he remembers. 'The natural setting, the openness, the sheer beauty of the place was so incredibly compelling.'

Early Koichi Takada Architects projects focused on interior design, often for small restaurants intent on making a statement and prepared to take a risk. He designed stand-out timber 'shell', 'cave' and 'tree' interiors for three sushi franchises, then an evocative forest-like canopy of ribbed timber for an urban marketplace. These led to commissions for private residences, some grand houses, many apartments – including interiors for Jean Nouvel's green glass Central Park apartment complex in Chippendale, Sydney. Gradually, clients began to commission full builds. Today, the studio consists of more than 50 people and projects span the globe – from Sydney to Tokyo, Los Angeles and Doha.

'Arc is significant in our evolution as a studio in that it shows how, even as we begin to think globally and expand internationally, we are still agile enough to act locally,' says Takada. 'At its base, the building sits beautifully within the historical context of Sydney. Its towers, we like to think, push it into the future.' ●



The initial design plans for Koichi Takada Architects' Arc did not include the careful bricklaying we see in the end result. The original intention was to create a brick veneer, but this was scrapped in favour of using a hand-laid Bowral Bricks in Hereford Bronze and Bowral Blue. The warm tones help to blend the new facade into the surrounding heritage district. *For more information on Bowral Bricks, see page 108.*



Page 50:

At Aesop Gough Street, March Studio retained an original spiral staircase at the back of the otherwise modernised retail space.

Lessons in locality

Brought to life by Melbourne-based architects *March Studio*, Aesop Gough Street in Hong Kong showcases a rough cement patina and luminescent Venetian glass brick floors in an homage to the city's towers and topography.



Article **Kate Springer** Photography **Peter Bennetts**

As one of the world's most densely packed cities, Hong Kong's domino-like collection of glass-and-steel skyscrapers needs no introduction. But what many people don't realise until they're exploring on foot is that much of Central, the city's main business district, is built on a mountain.

It's on one of Central's steep inclines that you'll find recently opened Aesop Gough Street. Located atop a set of cement stairs at a three-way intersection along near-vertical Aberdeen Street, the wedge-shaped facade captures your attention with its large glass

windows and rough, raw concrete exterior.

The boutique, which is the 17th Aesop location designed by Melbourne-based architecture firm March Studio, offers a lesson in locality. In designing the building, studio co-founders Rodney Eggleston and Anne-Laure Cavigneaux took inspiration from the building's past life as a printing press, the area's hilly terrain and Hong Kong's penchant for glossy skyscrapers.

From the onset, the team knew it would be a challenging project, particularly when it came to the site's angular shape and relatively small size at 44 square metres on

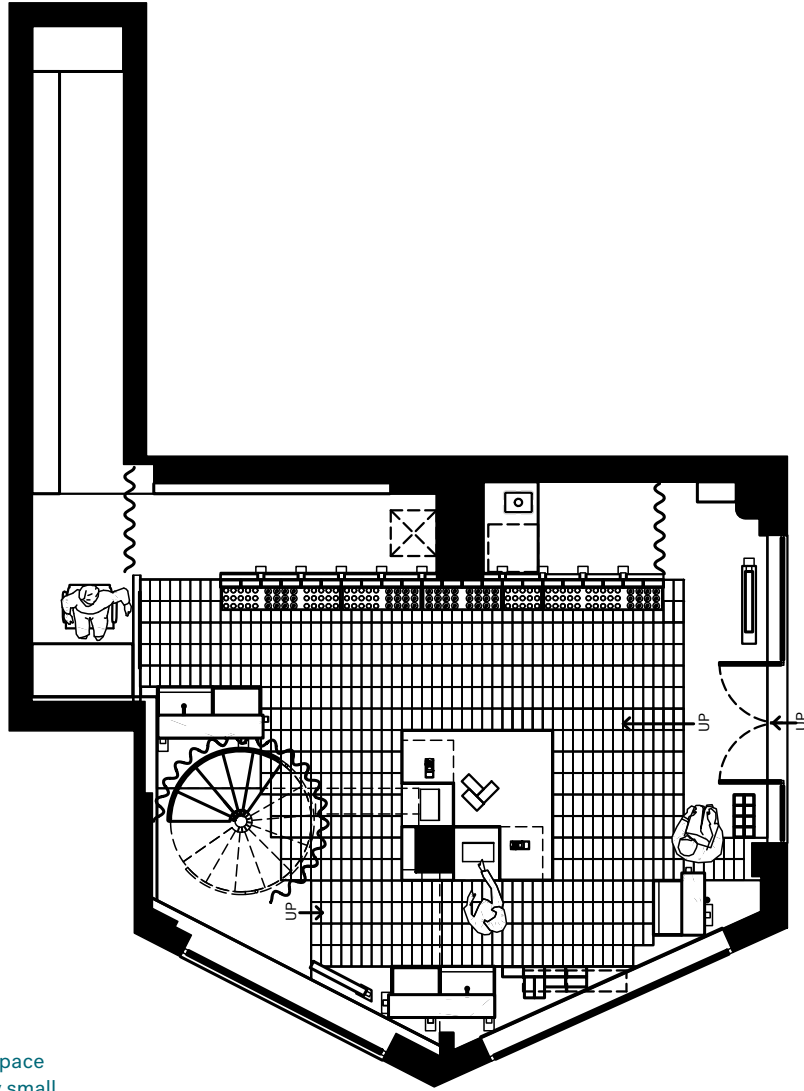
the ground floor and 38 square metres on the second floor. 'It's an interesting space but very difficult to work with because it's three-sided, and originally – I think there were four or five different levels,' says Eggleston. 'We had to think about how we could plan out a logical space.'

Instead of fighting against the building's unconventional form, the architects leaned into it. March Studio harnessed modern architecture tools such as Leica Geosystems 3D laser scanning software to discern the most optimal use of space, then levelled the floor accordingly. ►



Page 53:
Aesop Gough Street
draws from the spatial
tropes—glass, steel
and concrete—of the
surrounding district,
Hong Kong's Central.



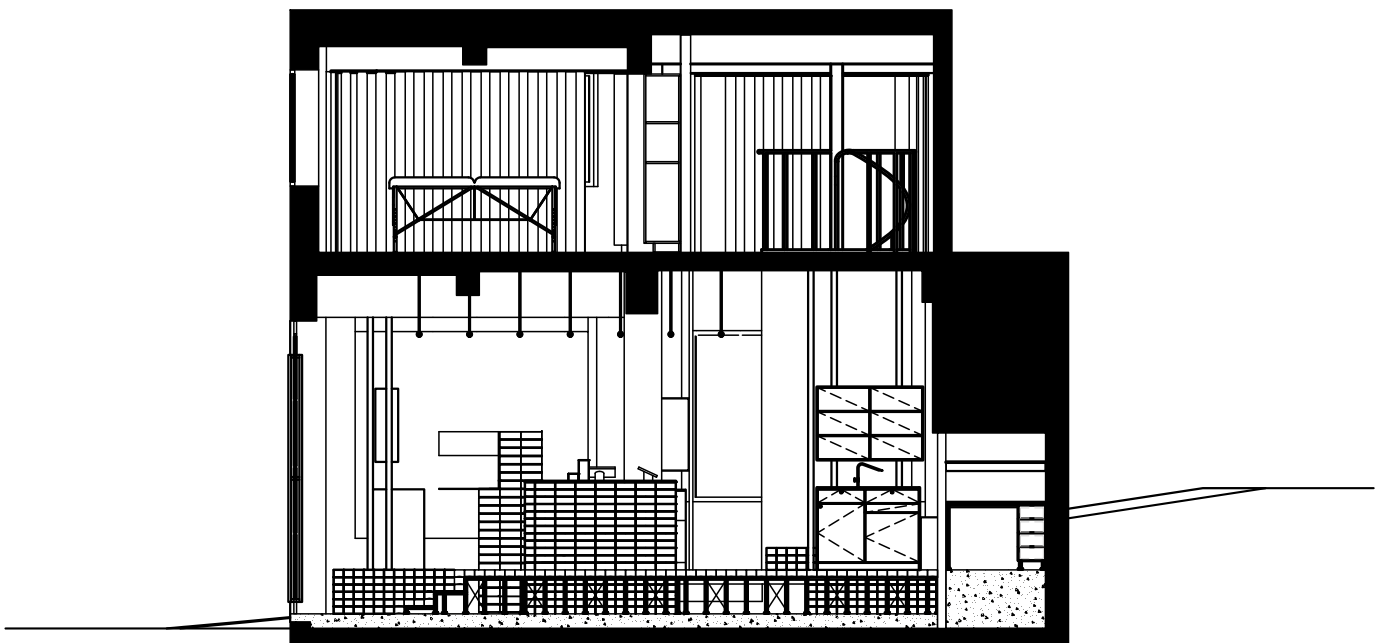


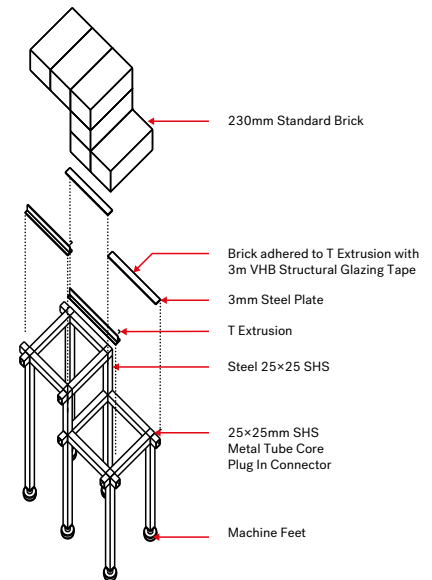
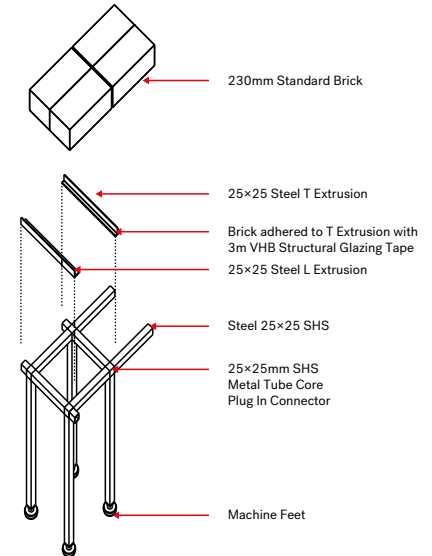
Page 55:

The original space had up to five levels. Using data from the 3D laser scanning software, the design leveled parts to use the space optimally.

Page 56:

The retail space is relatively small —44 square metres on the ground floor and 38 on the first.





Page 53, Below:
The designers retained the textural cement exterior, celebrating its rough patina.

Top left:
Venetian Glass bricks are used in the shop's counter and flooring.

Top right:
The architects created 600 to 700 tiny steel legs to invisibly support the glass bricks and create the illusion of floating glass.

When it came to the interiors, the architects chose one material to focus on, keeping everything else minimal and clean. It's an approach that March Studio has honed over time for Aesop, having worked with cardboard, wood or bottles in the past. And through their expressive and almost obsessive approach to one material for each boutique, the interiors become memorable and distinct. 'It's a strategy we developed to help Aesop grow without feeling like it's kind of a soulless chain,' he adds. 'It gives the store a kind of individuality and consistency across the brand.'

In the case of Aesop Gough Street, March Studio chose glass—specifically, Venetian glass bricks—as the key material. 'When you're in Hong Kong, you're surrounded by glass and brick and steel,' says Eggleston. 'There's this sense of amazing transparency and translucency to the city as it changes colour – like when all the lights come on at night. It's a glistening kind of landscape, so glass is inherently vital to Hong Kong's appearance.'

Commonly used in masonry walls or perhaps in a bathroom to let light in, the architects envisioned something more unusual for the glass bricks: transparent flooring that seems to be suspended above the ground. 'In Hong Kong, you walk up and down stairs constantly, so we wanted the entrance to reflect that,' says Eggleston. 'At the front of the store, you ascend the [glass brick] staircase and look down through a glass brick floor.'

When March Studio built the floor, they left an empty void underneath. You can't see many details through the luminescent bricks, but you can sense there's something below—adding a little mystery to the space while simultaneously preserving part of its past. 'It's almost like an archaeological dig—when they expose a ruin in the floor of a building,' adds Eggleston.

However beautiful, the plan was surprisingly difficult to execute. To create the illusion of floating glass, the architects built steel, ladder-like frames and 600 to 700 tiny steel legs

– each supporting a corner of a brick. 'We did so much underneath the floor that you can't even see,' says Eggleston. 'Most of the really hard work went into creating that suspended effect!'

To provide a sense of continuity and ricochet the natural light, translucent glass bricks feature throughout the boutique – adding a reflective quality to the store's main product wall, or stacked up high by the window in Lego-like towers in what feels like an echo of Hong Kong's verticality.

In addition to carefully choosing its materials, March Studio paid special attention to texture. The smooth forms of the glass bricks internally are juxtaposed against rough cement externally. 'If you have a look at the outside, you can see this heavily textured concrete with a fantastic, rough patina where the [building's old] tiles were chipped off,' says Eggleston. 'There is an ambition in a lot of Southeast Asian cities to finish everything in a really glossy or shiny way, but we wanted to show the life and the history of the building. The builders in Hong Kong asked us: "Are you sure?"'

As a final homage to the building's history, the team retained a black spiral staircase at the back of the room, which leads up to a pink-toned treatment room – the colour a nod to Hong Kong's granite quarries. 'We loved the simple nature and elegant structure of the staircase, which you don't see much these days,' explains Eggleston. 'We decided to keep it, because it's such a beautiful sculptural element.'

'In each of the spaces we've designed for Aesop, we try to create an environment of intrigue,' explains says Eggleston. 'What we often find is that people are mesmerised by either the construction technique or the materials of the store design – and that makes them want to stop and interact with it. For us, that's our job done.' ●



A defining feature of March Studio's retail fit out for Aesop Gough Street is the translucent, glass brick floor. Made of Venetian Glass, the glass bricks—here in polished Arctic Crystal—are supported by metal frames that only touch the edges of the brick, creating the quietly surprising effect of a void beneath the feet of shoppers. *For more information on Austral Brick's Venetian Glass bricks, see page 107.*

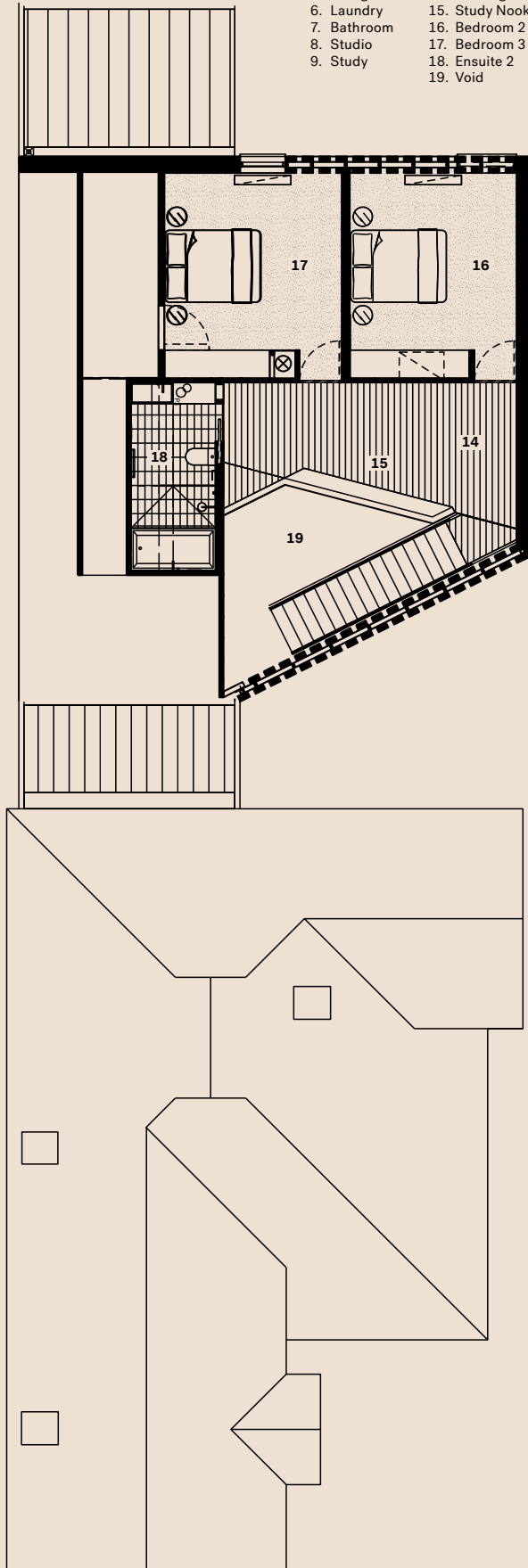
Jackson Clements Burrows Architects
York Street House
Melbourne, Victoria

Page 58:
JCBA's York Street House extension
judiciously avoids a 'box at the back'
style of renovation.

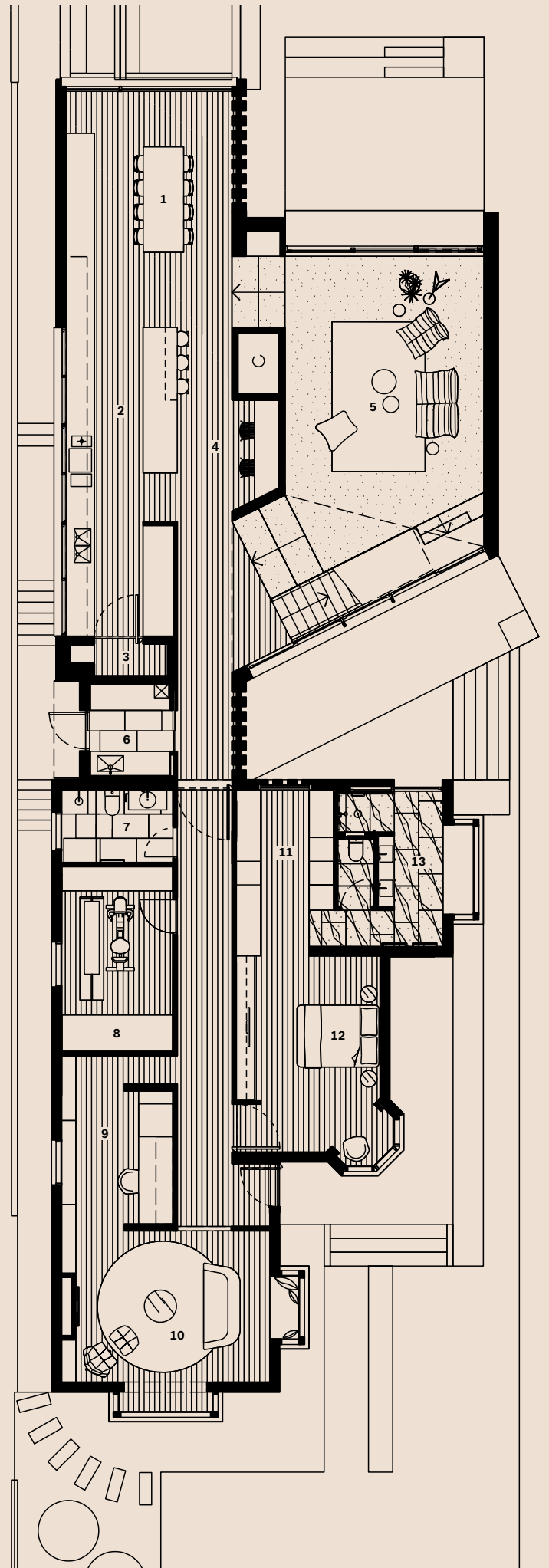
STRENGTH & → SYNERGY



- | | |
|----------------|--------------------|
| 1. Dining | 10. Lounge |
| 2. Kitchen | 11. Master WIR |
| 3. Wine Cellar | 12. Master Bedroom |
| 4. Study Nook | 13. Master Ensuite |
| 5. Living | 14. Landing |
| 6. Laundry | 15. Study Nook 2 |
| 7. Bathroom | 16. Bedroom 2 |
| 8. Studio | 17. Bedroom 3 |
| 9. Study | 18. Ensuite 2 |
| | 19. Void |



First Floor Plan



Ground Floor





Page 59:
The rear of the
extension, which
opens up to northern
sun and light.

Page 60:
The Bowral brick in
Brahman Granite brings
sense of warmth to
the concrete materiality
of the lounge room.

An addition to a 19th-century house by *Jackson Clements Burrows Architects* brings a distinctly contemporary twist to old brickwork traditions.

Article **Tobias Horrocks** Photography **Derek Swalwell**

We expect new additions to old buildings to look distinct from their predecessors. In fact, the main guide to heritage conservation in Australia, the Burra Charter, demands it. The York Street Residence by Jackson Clements Burrows Architects (JCBA) has a contemporary aesthetic, yet also draws on the existing Federation house it adds to in several ways, the primary one being the choice of double brick for the building's construction.

Double brick walls are typical of 19th century Federation houses, as is the simple stretcher bond pattern they were often built with, wherein the bricks are laid with only their long 'stretcher' sides showing,

overlapping midway with the courses of bricks above and below.

But by combining these features in the York Street Residence with twin walled polycarbonate and 'stretching' the stretcher bond brickwork apart to let in light, JCBA have created a construction detail that would have been unimaginable at the end of the 19th century. This blending of old and new is a theme that runs through the project.

In the Federation style, each element of the architecture is distinct—the roof overhangs the walls, which are in turn treated distinctly differently from window openings. Federation brickwork plays a clear role as an opaque, structural weather screen. In JCBA's addition to the original house, they treat the age-old

material as a surface that folds and at times seamlessly blends the function of 'wall' with 'window'. Matching colour and the absence of eaves make the distinction between 'roof' and 'wall' blur, too. The expected solidity and opacity of brick is defied by 'hit-and-miss' patterns that open up the walls to filter light and views.

JCBA's brick walls are double skins, the hit-and-miss pattern matched precisely on the inside, and the cavity filled with translucent, twin walled polycarbonate sheeting that provides good thermal insulation as well as forming the waterproof layer. There is no curtain to draw on the inside—the light comes in all day and its changing qualities affect the mood of the interior spaces. At night, the hit and miss pattern glows externally. ►



Page 62:
Hit-and-miss brick
screens provide
privacy for the upper
floor of the extension.

Page 63:
The view from
the ensuite of the
original house
to the renovation.





Page 64, Top:
The kitchen/dining area runs almost the full length of the new addition to York Street House.

Below:
Matching colour and the absence of eaves make the distinction between 'roof' and 'wall' blur.

The extension is separated from the old house by a courtyard, connected by a corridor link, and the addition appears like a pavilion in a garden. JCBA has created a suburban oasis, complete with the soothing sounds of trickling water coming from two reflection pools. Strategically located climbing vines cling to the brickwork. As per their request to JCBA, the clients feel like they are living in nature, immersed in its seasonal changes.

The folded form of the addition rises up two storeys, some of the chamfers cut on specific angles to avoid overshadowing the neighbours. The downstairs lounge receives winter sunshine via the courtyard. Its glazed wall is out of square, twisting towards north on this east-west running site. Operable louvres and blinds moderate light and heat from the east and west. The hit-and-miss brickwork filters light but also provides privacy screening, for instance to an upstairs bedroom. A conventionally glazed window opening punches through the pixelated brick screen in this bedroom, bordered by thin steel plate painted black, its high sill offering rooftop views.

For the rest of the house, rather than contrast the old building's cellular planning with complete openness, JCBA elaborated on the idea of separate rooms for separate functions, but their new rooms allow visual and acoustic connection with carefully calculated openings. The kitchen extends the existing floor level and timber material of the Federation house, and as the topography drops away, the lounge is stepped down lower, and given a contemporary polished concrete floor. Connected directly with the ground, the lounge feels cosy, yet opens views to the garden. Internal views through dividing walls are curated. A study nook in the kitchen faces one internal 'window' and enjoys an outlook to a painting-filled wall in the lounge opposite. In the lounge, a low opening that is also

a glass-sided hearth offers views to the higher dining level space, but only when you're seated on the couch.

The transition from Federation to contemporary happens as soon as you walk in the door – the interior has been completely modernised. Aside from the red brick fireplace in the sitting room, nothing carries period decoration. The ceilings are still enormously high, but rather than feeling palatial, they now convey the sense of being in a contemporary art museum. Shadow lines and edges lined with black steel plate replace adornments like cornices.

The new grey brick takes its colour cue from the slate of the Federation roof. In the addition, roof and walls are treated as similar coloured surfaces at different angles, unlike the distinct parts of the historic building. But there is one moment in the project where the distinction between old and new isn't clear. To let light into a walk-in robe, JCBA has 'edited' the red brick's conventional bond, inserting hit-and-miss openings into the red brick wall that faces the new courtyard. In fact, the walling infills an opening left after the 1950s extensions were demolished; the effect is remarkably seamless, matching the old brickwork precisely, down to the tuck-pointed grout.

The York Street House alterations and additions maintain a balance between contrasting and blending-in with the existing Federation house. JCBA has drawn from the past, as well as innovated with new details. The mix blends the historic and contemporary in a nuanced way, achieving a richer result than if JCBA had merely contrasted the eras, side by side. ●



Blending new with old was a key theme in JCBA's extension to a 19th-century Federation house. Picking up on the blue-grey tones in the old house's slate roof, the architects used Bowral Brick in Brahman Granite throughout the interior of the home and for the striking hit-and-miss screen walls that accent a number of the rooms. *For more information on Bowral Bricks, see page 108.*

MASSED



Jacobs in collaboration with
Smart Design Studio
Rail Operations Centre
Sydney, NSW

TRANSPORTER



Page 68:
The Rail Operations
Centre is a proud
addition to Sydney
Rail's legacy of fine,
red brick buildings.

Architects *Jacobs* in collaboration with *Smart Design Studio* have used the robust quality, rich colour and texture of brick to build to a tribute to train travel's time-honoured dependability at Sydney's new Rail Operations Centre.

Article **Peter Salhani** Photography **Ross Honeysett, Veronique Jenkins, Martin Siegner**

Railways run on timing. The dividend paid for the enormous investment they require, is that they can be relied on. They are as essential to any great city as monuments or music. In Sydney , just three kilometres south of Central Station, the new Rail Operations Centre (ROC) in Alexandria has centralised control of Sydney Trains' vast network under one roof, for the first time in its history. It's a move

that promises a quantum leap in service, efficiency and timeliness.

The Centre was designed by Jacobs in association with Smart Design Studio, on a site that was once a fire brigade training yard. Today it borders Green Square, one of the country's largest urban renewal precincts, home to thousands of new residential apartments with thousands more to come.

As a sign of the changing times, ROC's

nearest neighbour is the mammoth new Dangrove art storage facility, by architects Tzannes for patron Judith Neilson. 'It's a rapidly changing area. In five years' time, ROC will be part of a small city that's taking shape around it now,' says William Smart, director of Smart Design Studio. 'We saw this as an opportunity for the ROC to assert itself as a piece of rail infrastructure, proudly adding to the Sydney Trains legacy of fine red brick buildings.' ►



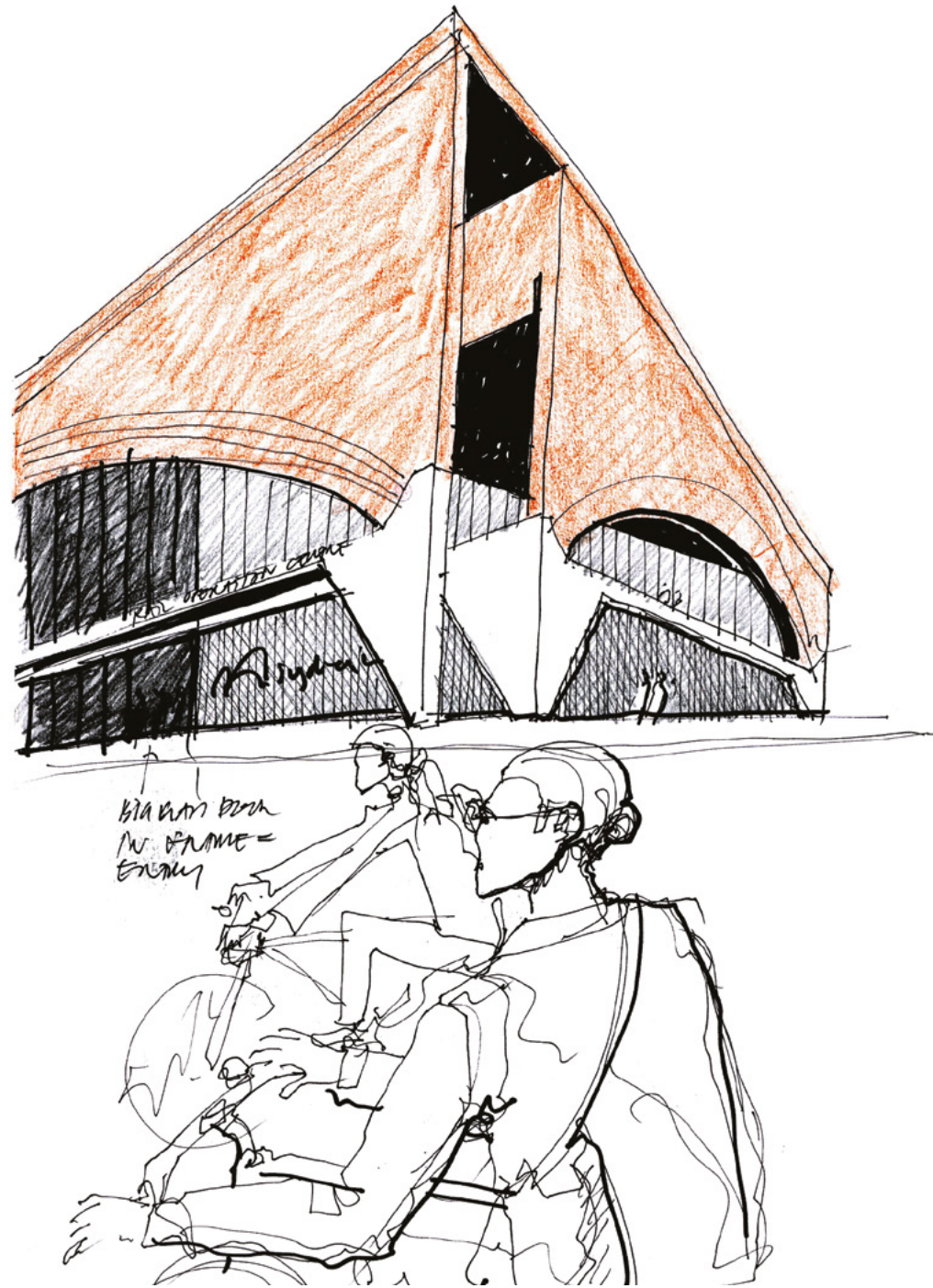
“ We had the same amazing bricklayers who worked on Frank Gehry’s UTS Business School. They helped resolve some of the finer details that humanise the building.”

Page 70:

The original brief was for a bunker-like building. Brick helped give this otherwise purely functional building a friendlier, more human persona.

Page 71:

Sketches anticipate how ROC will fit within its rapidly changing context.



**Page 72:**

The light-filled and transparent ground level of the building contrasts with the seemingly impregnable levels above.

Page 73:

The building is conceived as an inverted pyramid with the control room—the nerve centre of operations—at its apex.

The building is nicknamed red rock, for the Sienna-rich colour of its brick facade. Smart Design Studio developed the building concept, exterior treatment, and lighting for the main control room, while Jacobs delivered its technically advanced infrastructure, interiors and security systems.

Originally their brief was for no building at all—just an isolated bunker where the crucial work of specialised network controllers could continue unseen, as it had for decades. ROC replaces eight signalling centres to control more than 80 percent of the metropolitan network, around 1000 kilometres of track, moving 1.5 million people a day—more when Sydney Metro comes online.

The concept for the four-level centre is an inverted pyramid, with the control room—the nerve centre of operations—at its apex, with simulation and strategy rooms. Administration offices and staff facilities, are below, with the public entry at street level.

Wrapping the compound is an impregnable facade of concrete and locally made brick, steel, and glass. Just four materials, but each with a strength of its own, contributing to a carefully considered composition. On the north and east facades are massive brick archways 40 and 45 metres wide, respectively.

Poised on metre-thick concrete beams and haunches, they allude to a bridge, while behind the arches, a wall of windows allows lower levels a view to the street.

‘We had the same amazing bricklayers who worked on Frank Gehry’s UTS Business School, and they helped resolve some of the finer details that humanise the building,’ says architect Ron Keir, of Smart Design Studio.

Details include the corner elevation cuts and folds that play with mass and void, and fine radial expansion joints slicing through the brickwork, accentuating the arches and reducing building bulk.

Smart says the cue for the brick colour came from nearby warehouses, but to my eye, there are shades of the Red Rattlers—Sydney’s iconic rust red train carriages that had served for 60 years from 1926, when the lines were first made electric.

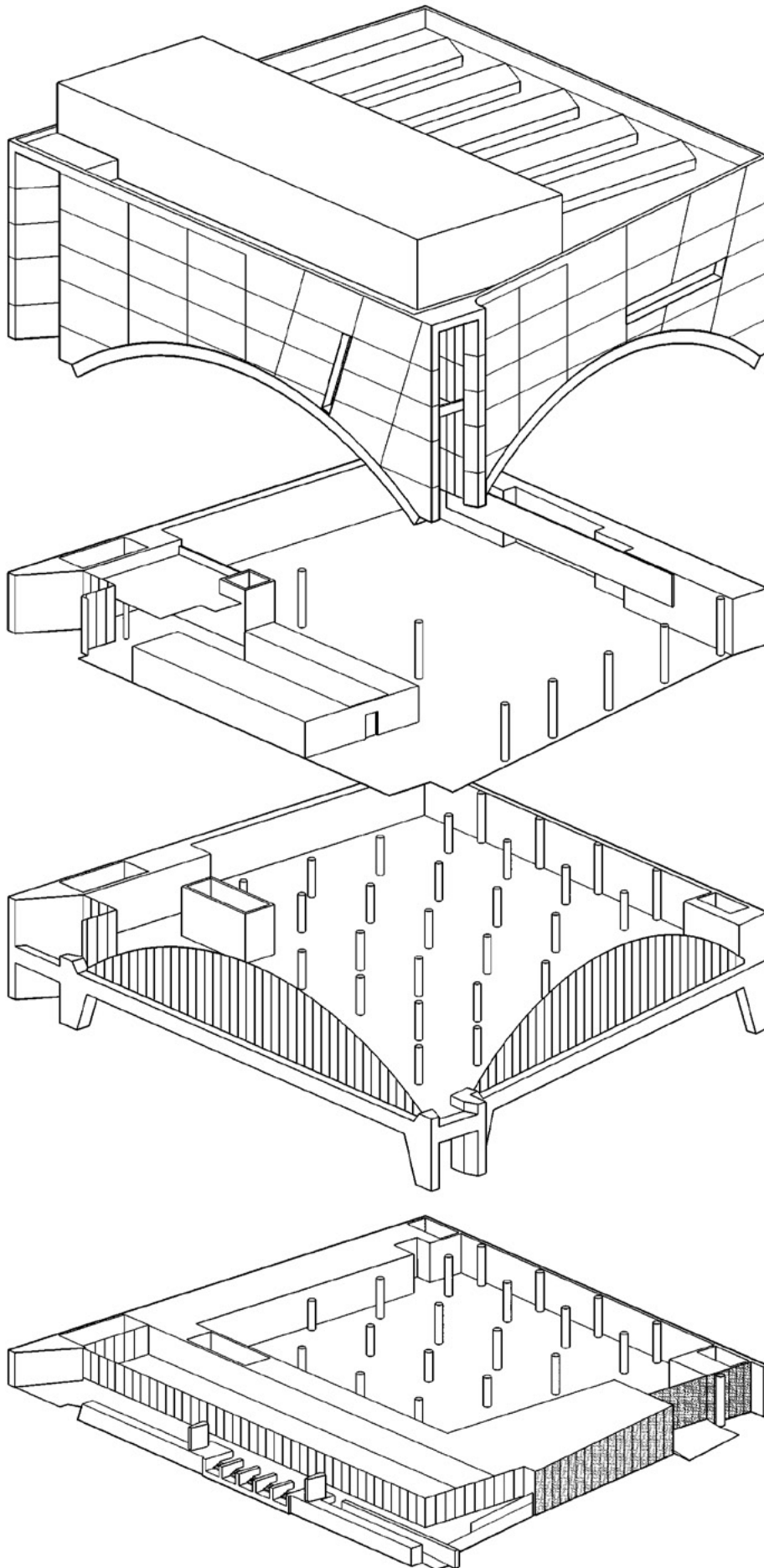
The ROC represents another milestone for Sydney Trains. ‘This is their first building outside the main rail corridor, and it gave an opportunity for architecture to change the workplace, not just the technology. That idea is reflected in the design, particularly in the control room,’ says Jacobs’ project director, Nando Nicotra.

Spanning almost the width of this massive control room is the largest digital screen in the southern hemisphere, helping

the teams of controllers that monitor the entire network to react quickly and in unison. The ceiling of this vast chamber integrates skylights for a luminous canopy above the purpose-engineered workstations. Each desk fully articulates from sit-to-stand for individual preference and variety, while natural ventilation and ambient noise cancelling systems keep the atmosphere surprisingly quiet and calm.

Sydney Trains says its new workplace has not only dramatically improved response times to incidents, but advanced workplace relations as well. ‘We’ve had people who have worked together in the same building for years, but only met for the first time when we relocated here. It’s been hugely rewarding on a personal level, as well as the huge technical efficiencies we’ve gained,’ says Rino Matarazzo, the head of service delivery for Sydney Trains.

In bringing vital operations out of the shadows and into the light, the ROC is as much a symbol as a catalyst, pointing the way forward, while nodding to heroes past. In the lift lobby, a map of the entire network has been digitally printed on perforated steel as an artwork. Over at the entry, is a wall-mounted replica of the Central Station clock face, fitted with the original metal hands from the archives—a reminder that time rolls on. ●



The facade of Sydney's Rail Operations Centre is made from Bowral Bricks Capitol Red—a classic red brick quarried locally in New South Wales. The building's large arches and fine brickwork details help to humanise this otherwise large, tightly secured and highly functional facility. *For more information on Bowral Bricks, see page 108.*

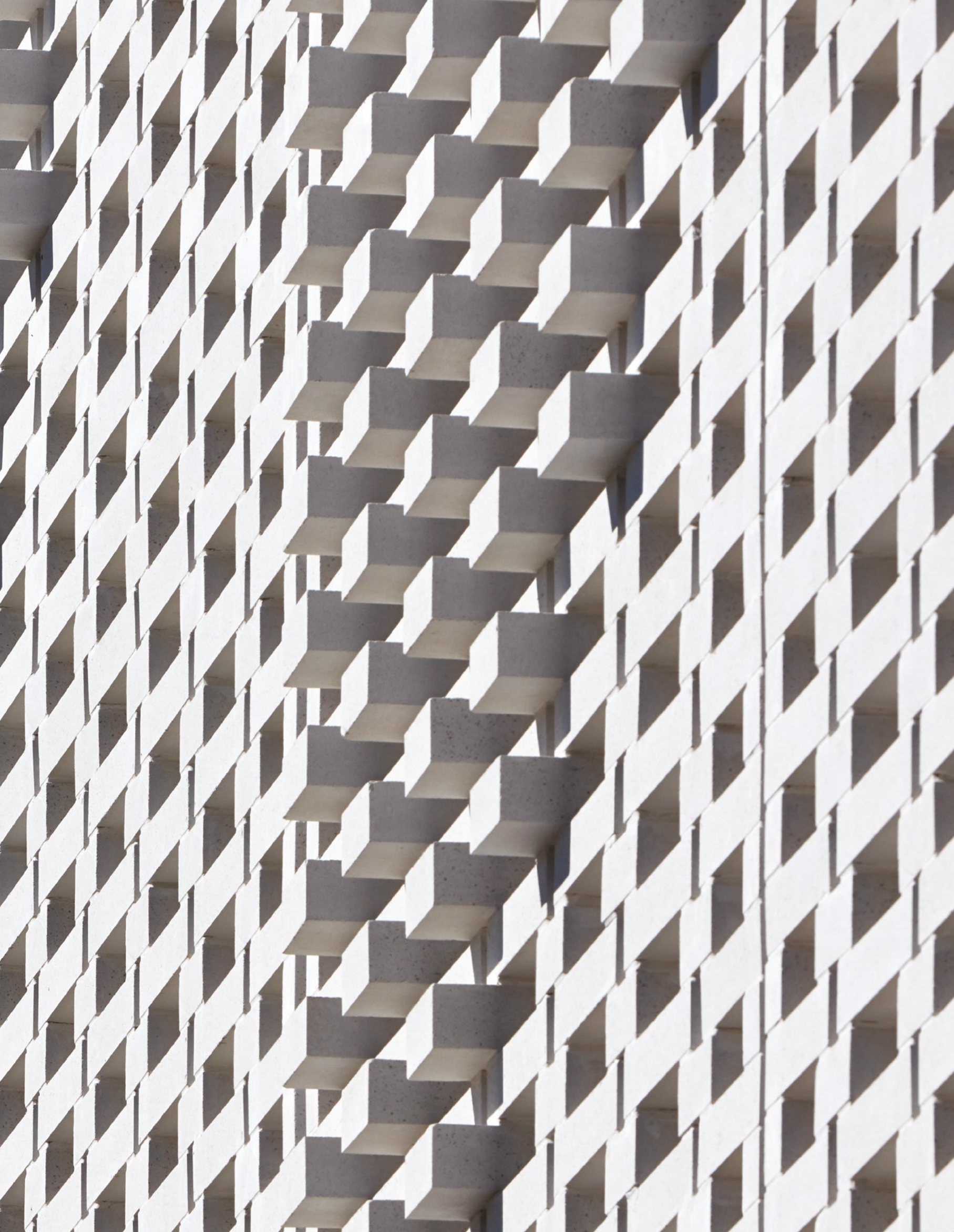


PATTERN → LANGUAGE

bureau^proberts
Newstead Series
Brisbane, Queensland

Page 74:
Masonry blockwork in
Porcelain and timber
screens wrap around
the Newstead Series
at first-floor height,
unifying its four towers.





In this new apartment development in Brisbane's Newstead, architectural practice *bureau^proberts* has used serialised patterns and materials to reflect the area's rich industrial history.

Article **Margie Fraser** Photography **Christopher Frederick Jones**

Residential redevelopment of inner city industrial hubs tends to fall into two strategic camps: annihilate and rebuild; or work within the existing context and framework to sympathetically integrate new construction with old. The planning and design of Newstead Series by bureau^proberts sits soundly in the second camp.

When JGL Properties commissioned architect and practice director Liam Proberts to design a residential apartment complex on a 6072-square-metre site in Brisbane's Newstead, he looked to the area's industrial history to establish a

meaningful relationship with place.

'When we started to consider the area, there was really no local plan in place for the northern part of Newstead,' says Proberts. 'The streets are wide and the blocks big, following an early 20th century orthogonal plan after the introduction of the motor car, as opposed to the more historic British pattern of narrow streets and laneways in neighbouring Teneriffe.'

While Teneriffe is home to historic wool stores, its northern neighbour housed smaller workshops built largely of timber and fibro. This mix of mercantile, industrial and residential elements was something bureau^proberts wanted to continue.

The generous street plan gave the architects the opportunity to push the building to the street edge and create a central community garden space within.

'We like to think of the central landscaped area as everyone's backyard,' says Proberts. Four tower blocks surround the green centre, which offers areas for a pool, gym, barbecues, lawns and other recreational spaces. It is a space for all the residents, and long vistas from one street entry point through the garden to the opposite street situate occupants within the wider area, providing both orientation and a sense of belonging to the neighbourhood. ►





Page 77:

To create the first-floor screens, large panels of blocks tied with vertical rods were craned into place.

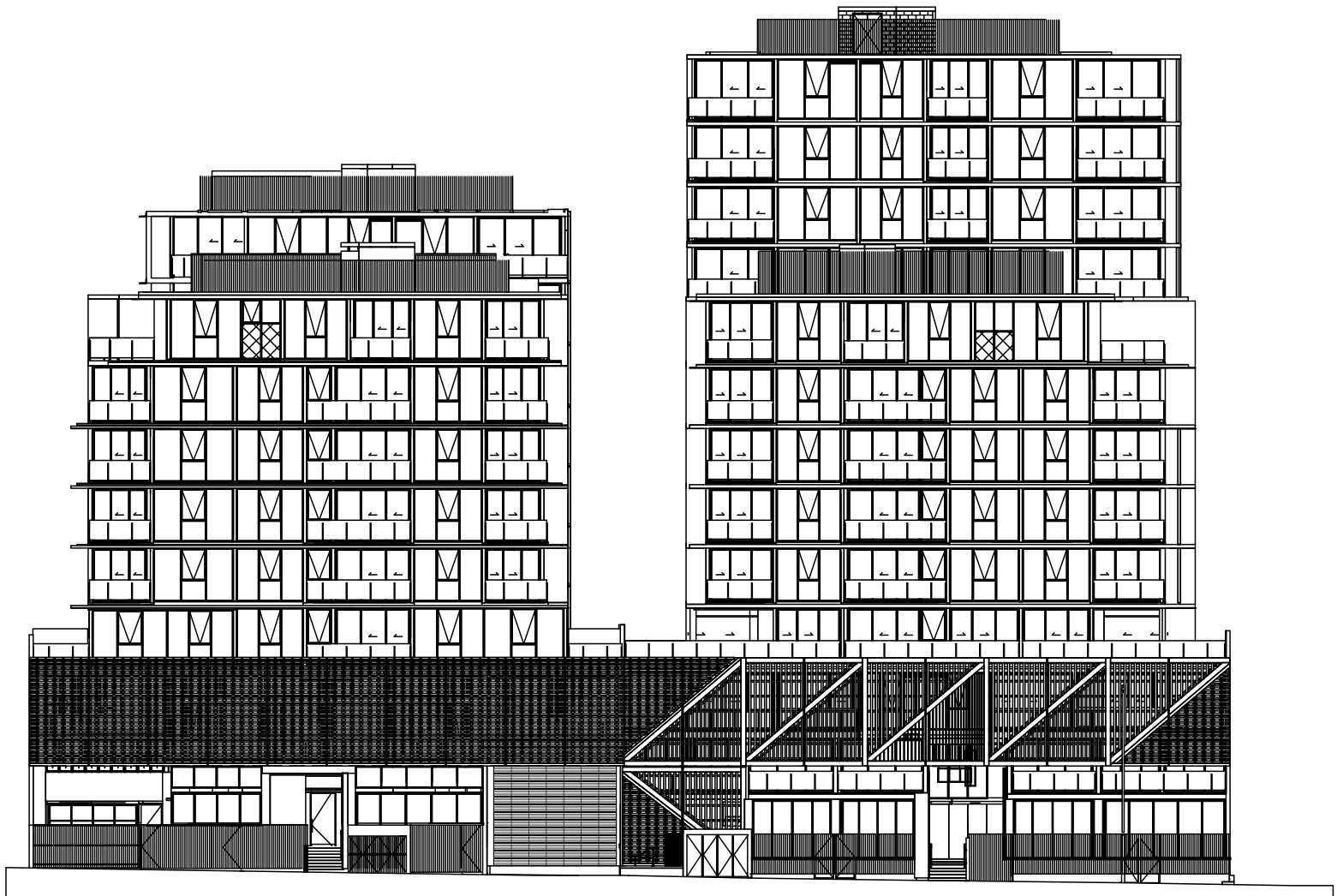
Page 78:

The towers are organised with the tallest at south to capture the most northern light within the central communal space.

Page 79:

The blockwork facade melds smoothly into timber, creating striking patterns. Both materials act as heat and light reflectors.





North Elevation

0m 1 3 6

The northern part of Newstead sits on a wide reach of the Brisbane River, where the Britannia docked in 1963 on a royal tour, and adjacent to the gargantuan gasworks and wool stores to the south. Trams and buses made the arterial road that borders the area a busy one, and in earlier times an upstream abattoir spewed animal remains directly into the river. Historic Newstead House, once home to the British Government Resident, is the jewel in the crown on the northern edge, while other grand homes were built higher up the hills behind to avoid the river floods. Asbestos works, gasworks, car manufacturers and many other industries set up shop on the river flat here, and many still have

a presence among the encroaching and increasingly plush residential blocks.

The Newstead Series design determinedly turns its back on the type of opulence and slickness that new towers often provide. To render it of its place, textural references to the history of the area abound.

American entrepreneur Edward Eager built a car assembly plant on the site in 1922, which remained there until Newstead Series took its place. The vast warehouse was supported by huge timber trusses. This structure inspired commissioned artist Jason Fitzgerald to create overscaled sculptures for each of the four entry points to the apartment blocks. Fitzgerald has a long interest in the beauty of disused

timber elements, which he uses to create delicate cross-hatch patterns in his work. These sculptures, which grace the 5.6-metre-high foyer entries, can be enjoyed by passersby and neighbours, as well as tenants. Fitzgerald refers to them as 'three dimensional timber tapestries', where repetitive patterns create a rhythm across their 20-metre lengths. Each is colour coded as a wayfinder for each of the four buildings, which are named after wool classers of old: Donaldson, Carlyle, Ajax and Koerstz.

'We wanted to employ diverse edges as a model for dealing with the suburb,' says Proberts. Patterned timber and blockwork facades sit above the humble dark brickwork of the ground level. The



Page 81:
Each foyer displays
a three-dimensional
wooden tapestry by
local Brisbane artist,
Jason Fitzgerald.

facades act as privacy screens and sunshades, and recall the triangulated trusses of the original warehouses.

‘We like to use “normal” materials in different, expressive ways,’ says Proberts, referring to the ground level bricks with stretcher bond and raked joints, as well as the timber battens so redolent of domestic Queensland. ‘They add warmth and familiarity, and the bricks have a strident and robust elegance.’

Alabaster blockwork screens reflect instead of gather heat, their white, unpainted surfaces expounding the use of materials in ‘honest’, undisguised ways that is a theme throughout. Large blockwork panels tied with vertical

rods were craned directly into place. The triangulated truss patterns are repeated in the blocks, while across the surface elements undulate in and out, creating a mesmerising rhythm.

Graphic designer Adrian Clifford, of the internationally acclaimed Rinzen collective, worked with the architects on the patterns, which are repeated in graphic dot form on glass balconies on the southern tower. Pixellations derived from images of the original trusses create what first appear as random dots. For those who stop and gaze upwards, there is a nice reference to past structures and industry. Newstead Series is clearly tied to and of its location. ●

The Newstead Series’ striking white screens are composed of GB Masonry Honed blocks in Porcelain, with a honed finish of matte exposed aggregate. This block was the perfect choice as a privacy and sun screen, being low maintenance, weather resistant and durable. *For more information on the GB Masonry Range see page 111.*

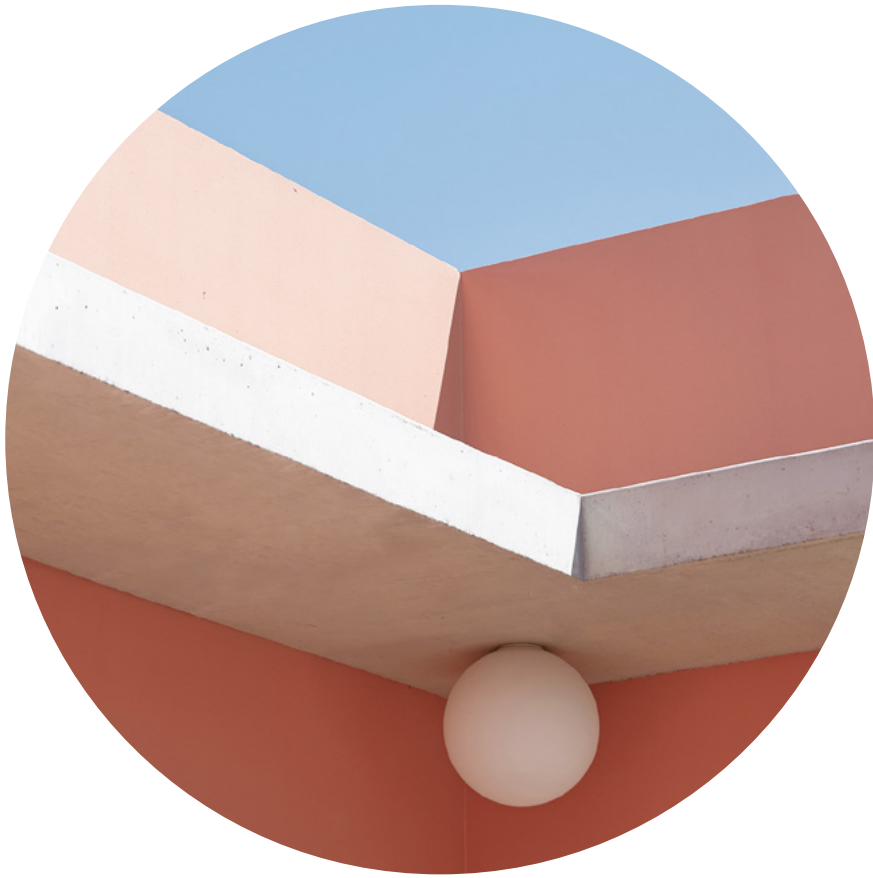


Holiday Maker

The culmination of more than a decade-and-a-half of urban renewal, The Calile Hotel is an improbable oasis of decompression in the thrumming heart of Brisbane.

Richards and Spence.
Brisbane, Queensland.





Revolving brass arms held aloft by concrete columns mark the passage of time on the corner of James and Doggett Streets in Fortitude Valley, Brisbane. A symbol of civic connection, clock towers like these are usually reserved for train stations and city halls. Here, this timepiece announces the civic intentions of recently completed The Calile Hotel. It also marks a cornerstone in the comprehensive body of work realised by its architects, Ingrid Richards and Adrian Spence of Brisbane practice Richards and Spence.

Before The Calile Hotel was conceived, there were a host of interventions across the James Street precinct to rejuvenate sites also owned by the development team, Calile Malouf Investments. The first was James Street Market (2003)

designed by Cox Architecture with Ingrid Richards as design and project architect. Richards and Spence then made further enhancements through projects including 19 James Street (2012) and 19 Wandoo Street (2015). The latter proposals set retail tenancies within a framework of colonnades, laneways and immersive gardens, committing to the idea that leisure pursuits – shopping and dining – could be greatly enhanced by place-sensitive urban design strategies.

The Calile Hotel is the culmination of ideas that Richards and Spence has tested and refined during the preceding two decades. The architecture builds on the formal and material language of the rejuvenated precinct and extends its climate-sensitive agenda. Masonry and concrete serve as both construction and finish materials. Gardens are generously deployed.

Public and semi-public circulation areas are passively cooled and outdoor territories are made into principle rooms. These approaches embed the architecture in its surrounds, harnessing all the favourable qualities of Brisbane's subtropical climate and this exquisitely curated leisure precinct.

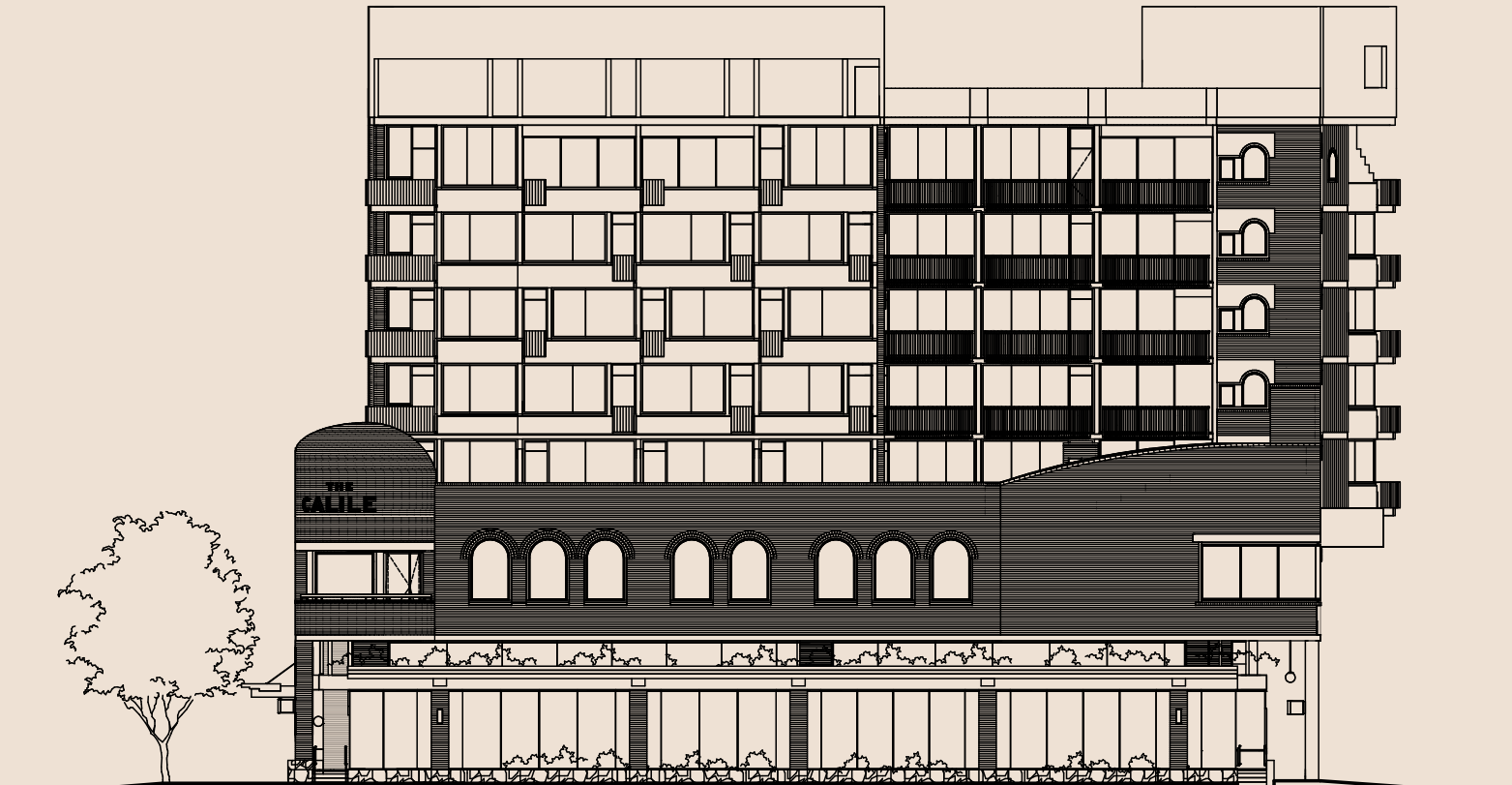
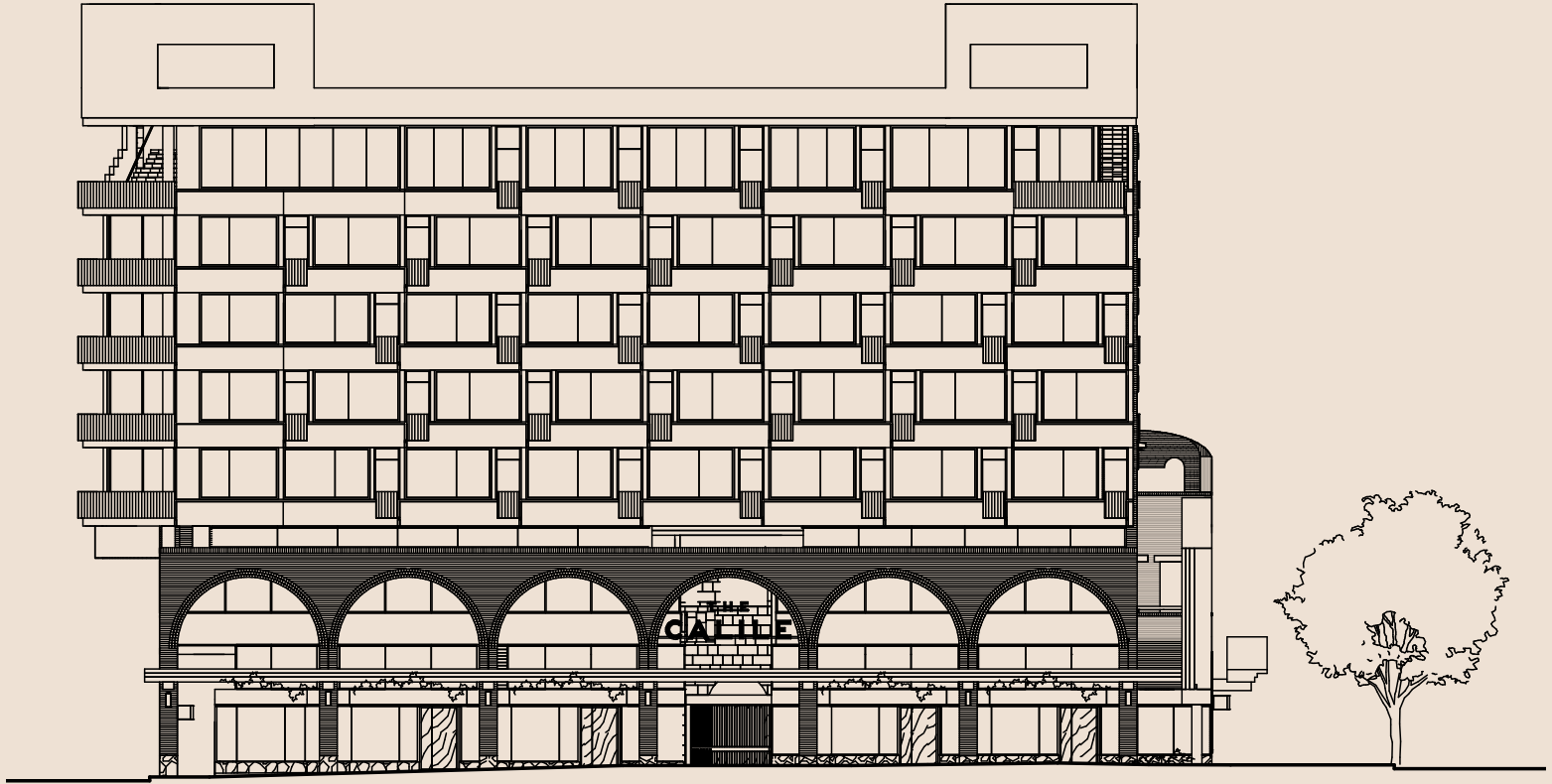
Street front retail tenancies activate three sides of the hotel at ground levels. Each is afforded a beautifully detailed window box, framed by an arching cadence expressed in white brick. Pedestrians are drawn into the hotel below a signature archway on James Street, separated from the porte cochere, which syphons automobiles from Doggett Street into another vaulted space. Regardless of the approach, the gentle hubbub emanating from the pool deck above invites visitors to the fluid ascent to the podium terrace. Here, mature palms strike a silhouette against Queensland's dazzling sky, endorsing this terrace as the principal place of gathering, for both the hotel and the city.

Every visual reference and material finish seems poised to trigger the memory of a thousand holidays past—sparkling pool, sun-drenched terrace, spritely sun umbrellas and glamorous lounge chairs—encouraging all who enter to unwind, breathe deeply. As Adrian warns: descending onto bustling James Street in a holiday-fuelled daze, wearing nothing but a swimsuit, is a very real threat.

One of the most memorable experiences of The Calile Hotel unfolds in the quiet spaces of the hotel concourse where naturally ventilated corridors service hotel rooms on both sides. As the lift doors open, a picturesque scene of suburban life is framed by a large opening looking out across the neighbourhood. ►

Page 85:
Inside The Calile Hotel
bar and restaurant,
marble, masonry and
concrete contribute to
the feeling of exquisitely
curated leisure.







Page 87:
The architects were inspired by hot weather cities, leading the design to incorporate breeze ways, passive cooling systems and white, reflective facades.

Page 86:
The elevation from James Street (top) and Wandoo Street (bottom).

Warm subtropical air fills the lungs as breezes circulate gently overhead. In this moment, guests are immersed in both climate and place; a warm and sunny Brisbane neighbourhood. Here, as in the suburban surroundings, garden beds and pots cradle tropical plants and sunlight pours in through breeze block walls.

Inside hotel rooms, the visual and material language of the broader enclave is reimagined. The massive brick arches witnessed at street level are brought inside

but reduced to the scale of fingertips. Hemispherical finger-pulls carved in timber and etched in brass echo the curved edges of marble-top credenzas and brass-backed night lights. Surfaces deliver tactile and visual impact. Most notable is the cork, which wraps floors and walls and at first glance appears like travertine with its vein-like pigmentation. Beyond delivering tactile and chromatic appeal, the cork surfaces bring a visual and acoustic softening to the interior.

As focus returns to the magnificent clocktower at the street, Ingrid and Adrian make the modest suggestion that its making speaks of the generosity of the owners, Cal and Michael Malouf. That it does. But more than this, it crystallises the collective drive of both owners and architects to engage a private building in the public act of city-making. The generosity of spirit exuded by this building in this city-fringe neighbourhood will profoundly influence the character and expression of this warm-weather city. ●

“ Every visual reference and material finish seems poised to trigger the memory of a thousand holidays past. ”



**Page 88:**

The interior of the hotel rooms offer a quieter and more personal version of the geometry of the hotel's exterior.

Page 89:

Richards and Spence continued the material story employed in the rest of the surrounding, rejuvenated precinct in The Calile Hotel: masonry and concrete.

The colour scheme and material choices in the design of The Calile Hotel firmly locate it in the tradition of mid-century modernism, particularly Palm Springs resort architecture, despite being located in 21st-century urban Brisbane. The use of the elegant yet easy-to-maintain white La Paloma-Miro brick from Austral Bricks on the exterior of the hotel contributes to this association. *For more on the Austral Bricks La Paloma series, see page 107.*



CONNECTING

iredale pedersen hook architects
City Beach College
City Beach, Perth, Western Australia

TO



BEACH



BUSH



The vastness of Western Australia—and its many and varied geographies and landscapes—is conjured up in this atypical educational project at City Beach in Perth's western suburbs.

Article **Rachael Bernstone** Photography **Peter Bennetts**

City Beach College is a public boarding school for secondary students from country areas, who move to the city to access Western Australia's (WA) Gifted and Talented Secondary Selective Program. During term time, the college is home to 66 co-ed students who attend a range of nearby schools, including Perth Modern School in the CBD, John Curtin College of the Arts at Fremantle and others.

The college needed a new social hub because it previously shared facilities with the International School of Western Australia next door, and

Iredale pedersen hook architects won the commission in 2016.

'There are not a lot of precedents for this type of building; we know of one other residential college in Broome,' says architect Adrian Iredale. 'That was good, in a way, because it meant that the brief could evolve naturally as the plan was configured around external parameters.'

The new building nestles into a leftover space between the adjacent college dormitory, the International School, a repurposed caretaker's cottage, and an established Ficus tree, which is close to the site's western edge on Kalinda Drive.

Hemmed in by these existing built

and natural forms, the design was further shaped by topography. There is a fall of six metres across the site; a BAL rating of 19 to contend with; a section of Bush Forever land – which protects biodiversity within the Swan Coastal plan – adjacent to the main carpark; and distant outlooks towards the Indian Ocean and Bold Park, in opposing directions.

Taken together, these constraints resulted in a bow-tie-shaped building with sweeping curves on the northern and southern elevations. The unusual geometry culminates in several oblique-angled corners at the far extremities, where tall frameless windows accentuate distant viewpoints. ►


CITY BEACH RESIDENTIAL COLLEGE

Page 93:
Subtle patterning
enlivens the blockwork
of the western elevation
with light and shadow.



Page 94, Top:
A ficus tree is the focus
of a central courtyard,
which the building
wraps around.

Below:
Meeting booths
resembling grain silos
are situated next to the
central reception.



“The blockwork provides privacy and sun protection and glows beautifully as the Western sun catches it in the afternoon.”
—Adrian Iredale

On the street side, the building encircles and opens up to the impressive Ficus tree, and the curve creates a sheltered north-facing courtyard at the rear.

The material selection—of sand-coloured, limestone, blockwork foundations and base, topped with a Colorbond steel soffit and roof—reflects the college's location on sand dunes between ocean and native bushland. The smooth masonry concrete blocks also pay homage to the history of the neighbourhood, which was originally developed to host the 1962 Empire and Commonwealth Games in Perth.

Famous local landmarks include a series of homes by the state's most renowned architect-import, Bulgarian-born Iwan Iwanoff, who introduced Western Australians to monumental concrete blockwork structures, as well as the brick-and-skillion-roofed

modernist homes that were built nearby to accommodate visiting athletes.

Internally, this new building radiates outwards from a central reception desk, which is located in the middle of an imaginary pinwheel to provide passive surveillance and to support overlooking of student activity.

Thanks to the many windows and glazed doors—which offer views from this central hub across most of the internal spaces, and beyond to the landscape outdoors—there is a strong sense of visibility and transparency throughout the open-plan area. The space is divided into various different zones using flexible furniture.

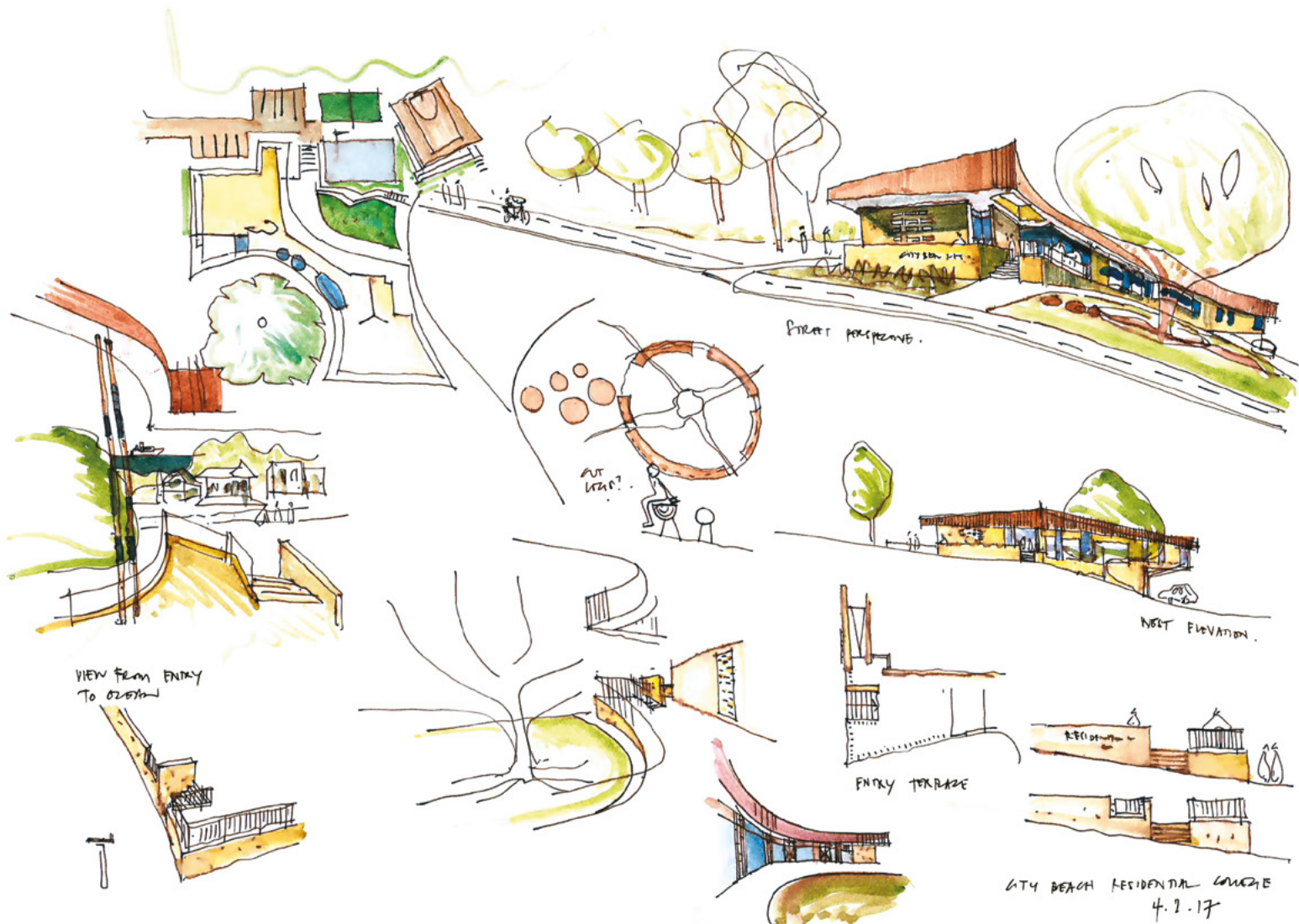
Adjacent to the curving reception desk, two cosy booths are housed in tall cylinders that resemble grain silos. These provide an intimate setting for parent-staff meetings, or for young

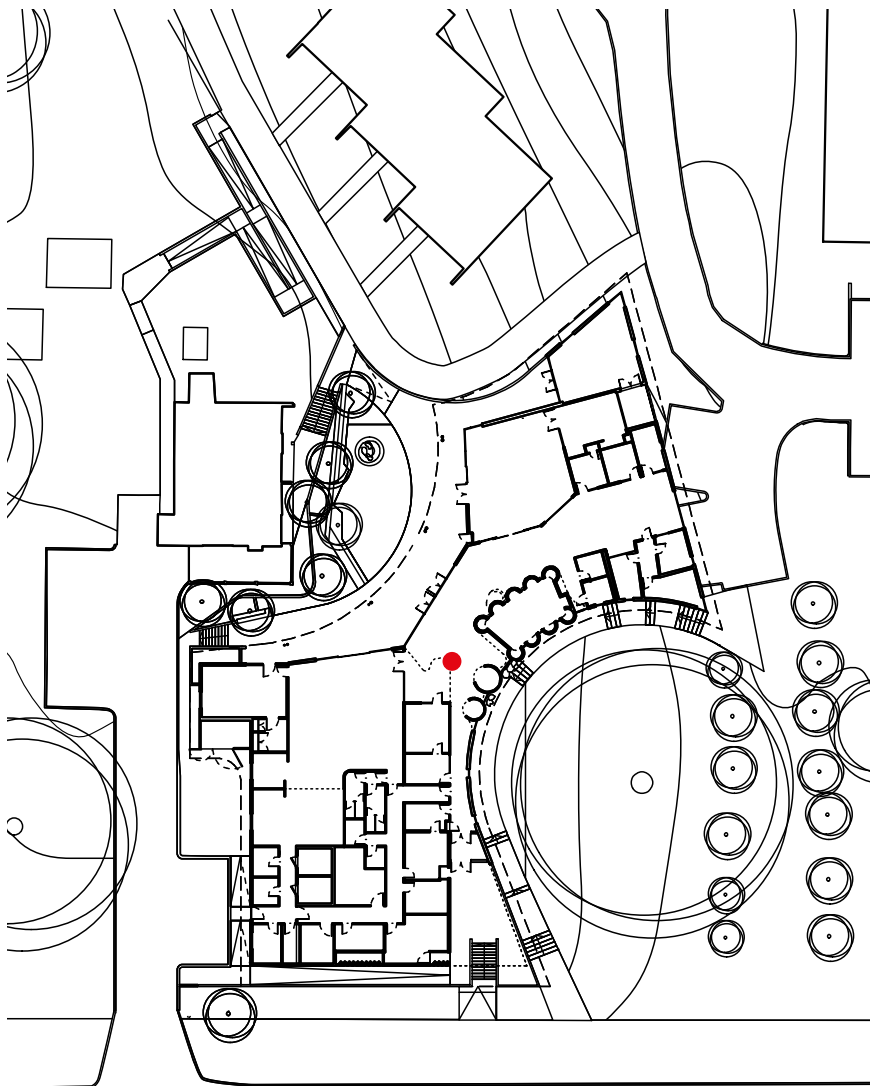
residents to gather and socialise.

'We wanted to create the sensibility of a living room in this space,' Iredale says of the common area. 'It's the social part of the "house".'

Beyond the main desk, the open-plan room with its tall raked ceilings includes informal hangout zones with moveable furniture, a dedicated group study zone and a series of smaller enclosed rooms that can be used for tutoring, private study and music practice. There is also a boardroom concealed behind timber joinery, which includes break-out spaces in additional 'silos'.

On the northern side of the main desk—and separated by large glazed sliding doors—the recreation room boasts pool, futsal and table tennis tables, and leads to the covered external verandah, landscaped courtyard and external barbecue area. ►





Sitemap ● Reception desk



This area features eucalyptus saplings that will grow to blend in with the adjacent bushland, while blockwork retaining walls provide places for students to play and socialise.

The dining hall, where breakfast and dinner are served on weekdays, plus lunch on weekends, opens to this protected northern courtyard, while the TV room is slightly removed.

Accessed via the verandah, the laundry and gym are located at opposite ends of the building: the laundry is slightly embedded into the hillside by a blockwork retaining wall, while the cantilevered gym rests on pilotes and appears to leap out into the air, offering views towards the city.

At the main entrance, the golden-hued stone blockwork comes to the fore. Blade walls lead visitors up the wide processional stair to a sunny terrace, and angled masonry columns protect the glazed windows and doors of the manager's office and other administration spaces, that were deliberately located here at the front of the building.

'The blockwork provides privacy and sun protection via the brise soleil device, and it glows beautifully as the Western sun catches it in the afternoon,' Iredale says. 'We aimed for a subtle and experimental use of blockwork to create these effects and it's resulted in really joyful spaces, that hark back to Iwanoff's use of blockwork.' ●

Smooth, sand-coloured masonry grounds the steel roof and soffit of City Beach Residential College. Resembling limestone but with the durability of concrete masonry, the GB Smooth blockwork from GB Masonry brings light hues and contrast to the building's exterior, while referencing the neighbourhood and nearby sand dunes. *For more information on GB Smooth blocks, see page 110.*



Page 97: Internally, the new building radiates outwards from a central reception desk [see dot], which is located in the middle of an imaginary pinwheel to provide passive surveillance of student activity.



GOOD



→ NEIGHBOURS

Wiltshire + Swain
Eastern Clinical Development (ECD) expansion,
St Andrew's Hospital
Adelaide, South Australia

Page 98:
In this hospital expansion,
the function of each floor
is expressed through its
facade treatment.

Carefully considered materials and facade treatments help integrate a new hospital building into one of Adelaide's oldest suburbs.

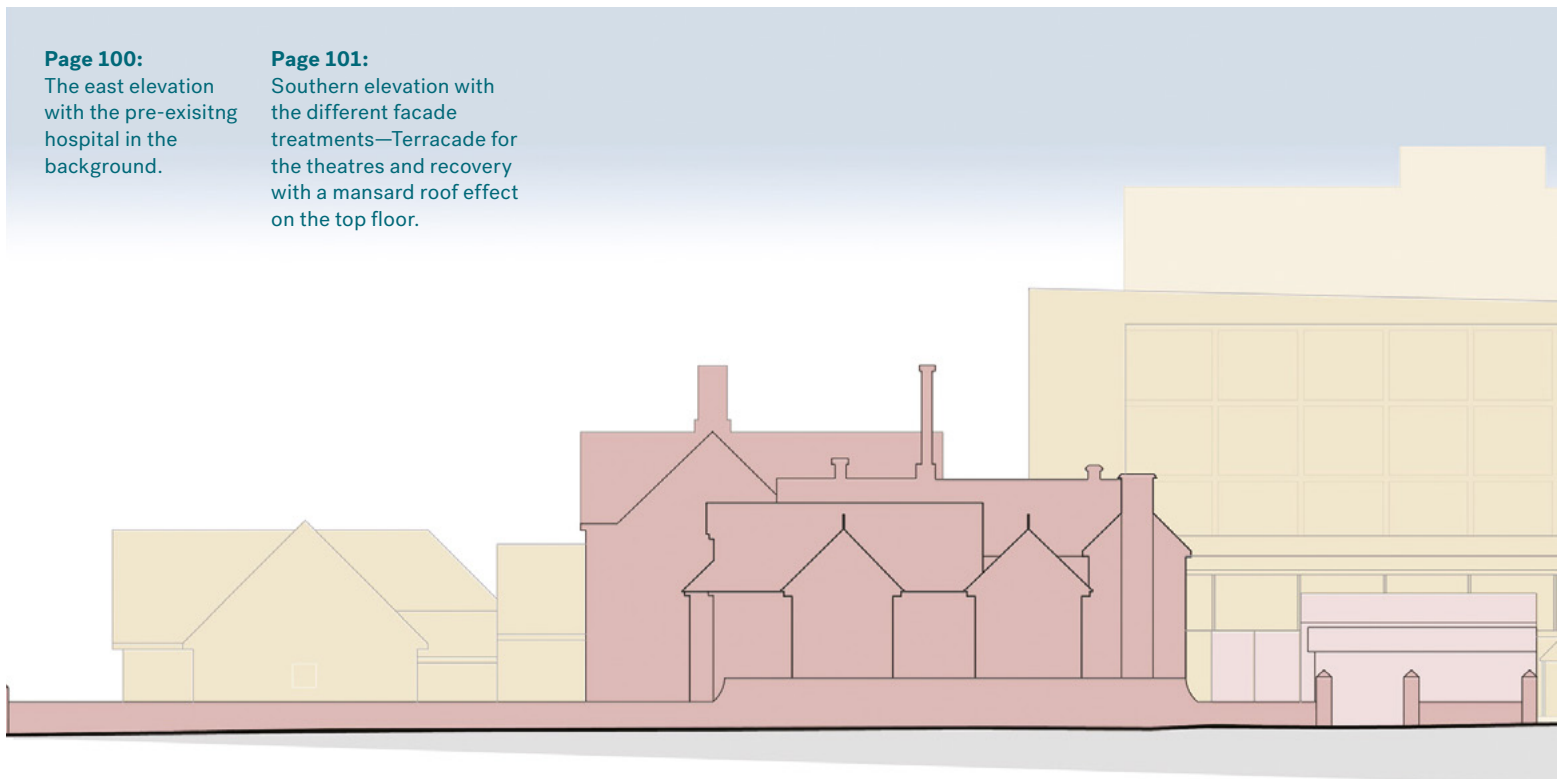
Article **Jo Russell-Clarke** Photography **David Sievers**

Page 100:

The east elevation with the pre-existing hospital in the background.

Page 101:

Southern elevation with the different facade treatments—Terracade for the theatres and recovery with a mansard roof effect on the top floor.



A group of ladies with eager dogs on leads walk and talk briskly in Adelaide's morning sun. Passing in front of St Andrews Hospital on Gilles Street, one remarks on the blooming rosemary of the generous garden beds, while another enthuses 'it's really quite a lovely building'.

Health services in Adelaide's north-west have recently benefitted from huge government investment, which has created a new precinct of major medical buildings just outside Colonel Light's urban grid. But while this precinct represents a significant urban expansion, St Andrew's Hospital has delivered its own state-of-the-art clinical facilities neatly within the leafy, established eastern quarter of the city itself.

St Andrew's Eastern Clinical Development (ECD) expansion had very particular challenges in terms of scale and site constraints, which were different to those faced by the more extensive, new site builds for bigger institutions in the north west. Primarily, this project needed to integrate into a local condition of low rise, heritage buildings.

The building facade treatment was critical in reconciling several vital concerns. One of these was dealing with an unusual structure. 'What is quite hard with the structure of this building is that each level is a different floor plate. The carpark dictated where columns could go for theatres and recovery and then up to the ward level, which is yet another different room arrangement,' recalls Andrew Swain, a director of Wiltshire + Swain.

'It's a completely different setup to, say, an office building where the grid of the floor is plate just copied up throughout the building and a transparent facade can neatly expose this,' continues fellow director Mark Wiltshire.

Instead, the architects expressed the function of each floor through its facade treatment. With the ECD, Terracade was used on the facade of the main level of theatres and recovery, while a mansard roof effect is achieved with dark panelling angled across the top floor of wards.

Dealing with the local setting was a bigger challenge. 'There was a lot of concern about the heritage context,'

explains Swain. Here, the facade plays a critical role. St Andrew's Hospital is over 80 years old with strong ties to its site and neighbours. Its grounds include the repurposed, heritage-listed Waverley House and a chapel, which was once the coach-house, immediately adjacent to the new ECD.

While recessed paneling matched the grey and sage tones of slate and stone, the main Terracade system's facade echoed the larger areas of surrounding brickwork – both the red-brick nineties hospital extension to the south-west and the brick walls of Waverley house and cottages nearby. The area has numerous heritage-listed colonial buildings. The side walls of houses down laneways reveal a warm, textured mix of stone and brick, chimneys and infill, greys and orange-reds.

'East Terrace is known for its mansions, but just a street behind you have lots of row cottages with fine detail and a mix of stone and brick,' says Swain. 'The context wasn't hard in terms of recognising those brick colours and textures, which is why we looked at Terracade.' ►





‘Once we rendered an image of the Terracade facade we realised that, of course, it’s going to be like this; of course, it works best with the setting,’ remembers Wilshire.

The visible scale of the Terracade lines also helped. The corner site had been a treed carpark and zoned residential. Even though it became part of a rezoned St Andrew’s Hospital precinct, the local neighbourhood considered this a residential area and visualised something domestic in scale as well as materials.

‘It is a big building!’ Swain says. ‘But the surrounding mature trees still reach up to the top of the building so it’s clearly not a tower-block. It seems to continue the streetscape.’ Using Terracade also gives the

impression of a residential building.

In addition to the Kimberly-coloured smooth Terracade, the facade also uses bands of striated Terracade. ‘The panels have some striping in different finishes,’ notes Liana Walter, associate interior designer, ‘which creates a subtle play of texture and lends interesting detail to a big plane.’ It also has shadowing similar in effect to house brick patterning.

The board of St Andrew’s was keen to see the new EDC building deliver the best possible care and latest medical treatment. It was also committed to respecting the history of a rich past, both within St Andrew’s own grounds and throughout the surrounding suburb. The project was about prestige and also about continuing to be a good

neighbour. ‘From a business point of view, St Andrew’s wants to be seen as a premiere hospital,’ says Swain. ‘Material quality was always important to that reputation,’ adds Whiltshire.

‘The building has been successful in how it sits within the neighbourhood and the local residents do think it’s something nice to look at,’ Whiltshire smiles. ‘It’s not an ugly building!’ he adds, ‘but it also doesn’t stand out—and that’s what the hospital wanted.’ ‘They wanted something with quality materials and to be a good neighbour,’ agrees Swain ‘because they value the location and setting and the people.’ It is not a small site but it happily manages a host of site relationships with confident, considered gestures. ●

Page 102:

As a big building intending to be understated, the change in texture, colour and material, help to break up the mass of the hospital.

Page 103, Top:

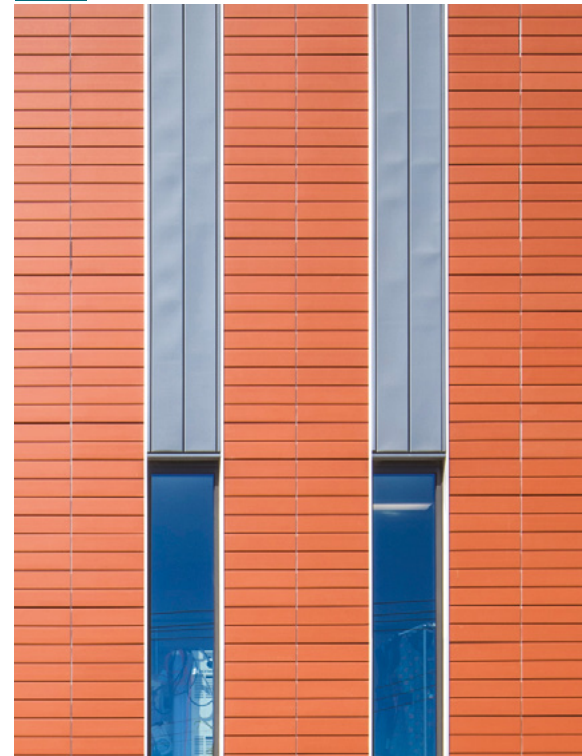
The architects designed all the clinical and procedural functions of the hospital, as well as creating custom designs for furniture and equipment stations.

Below:

The timber laminate joinery in the patient bedheads soften the otherwise clinical space and environment.

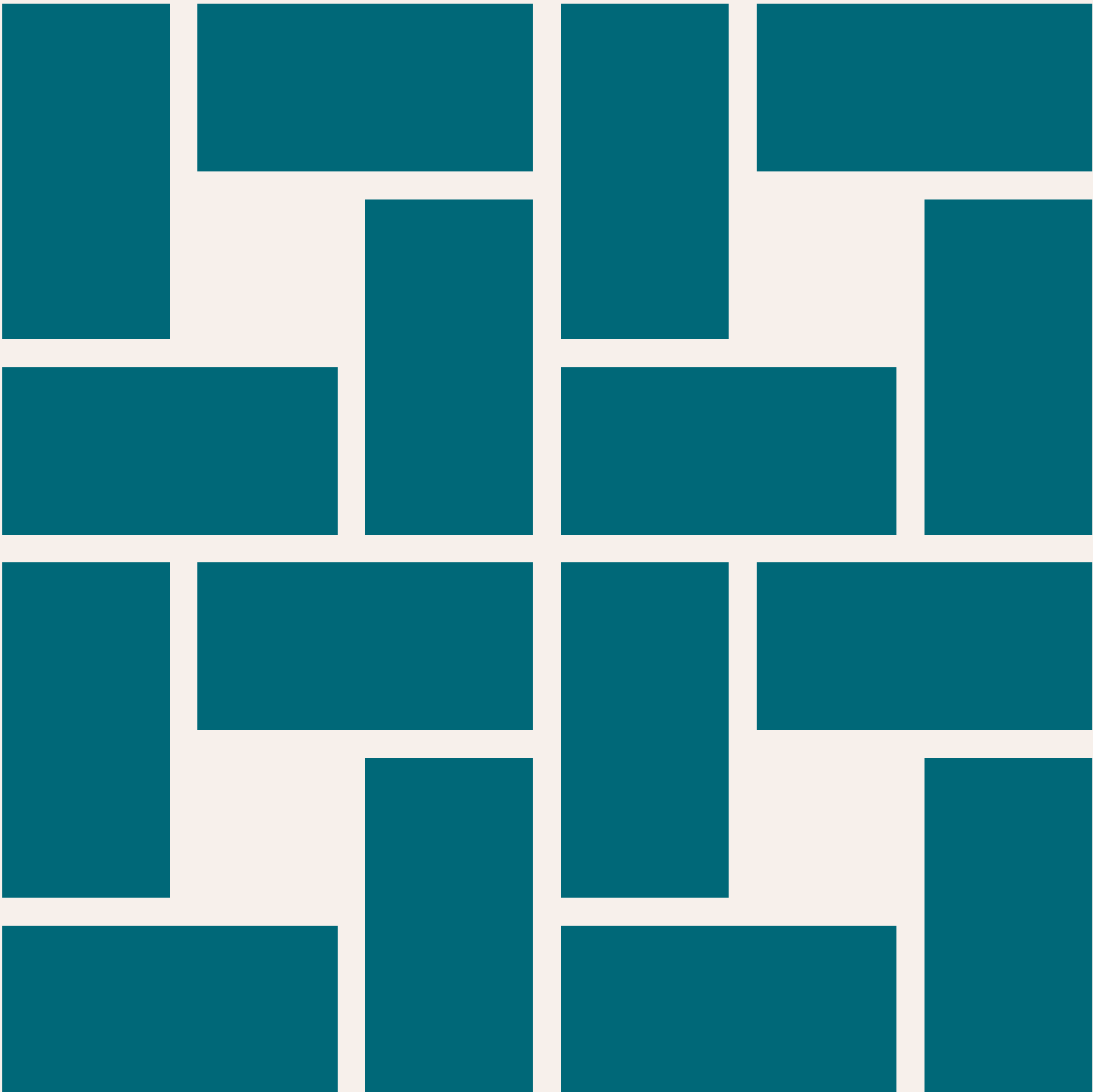


Wiltshire + Swaine designed St Andrews Hospital Eastern Clinic Development to speak to the local context and to avoid disrupting the residential suburb in which it sits. The architects chose a Kimberley-coloured Terracade XP smooth, striated with bands of XP Linear, to reflect the colour and textures of the suburb's new and old red brick buildings, which include a heritage-listed resident and chapel next door, as well as newer building from the 1990s. *For more information of Terracade XP products visit page 112.*



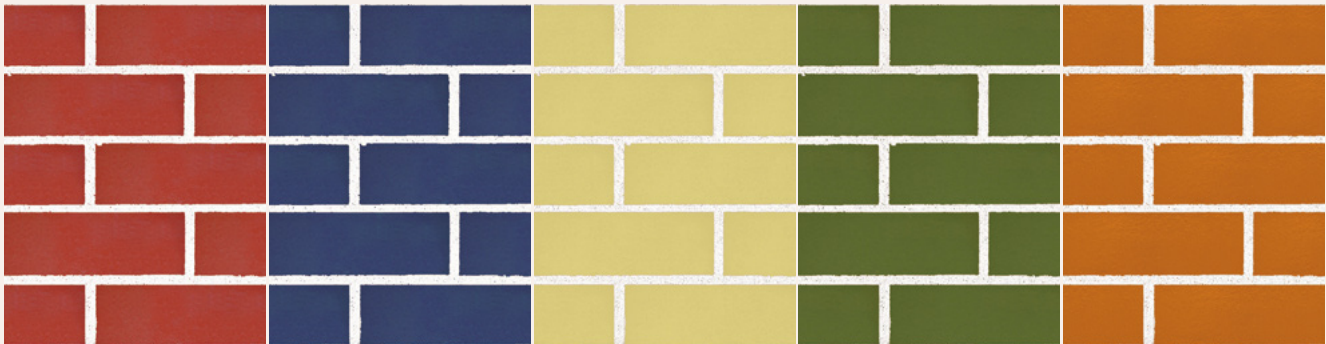
FolioElements

4



Austral Bricks Burlesque

Elements: Bricks



Luscious Red Smashing Blue Enchanting Yellow Deepening Green Bursting Orange



Cognac Illusion Sublime Steel Oyster Grey Brushed Leather Karrington Silver



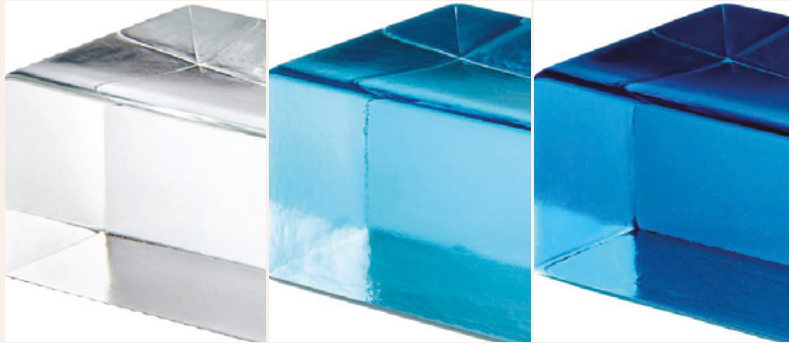
Majestic Grey Indulgent White Charming Black

The eye-catching Burlesque range is perfect for creating a bold design statement. Their fully glazed finish means that even soft neutrals can speak volumes. Available in 13 standard colours, the Burlesque range is not for the faint of heart.
→ australbricks.com.au

Refer
Daylesford Longhouse
Partners Hill
→ Folio 4, page 34

Range	
Length × width × height (mm)	230 × 110 × 76
Dimensional category	DW2
Weight (kg)	2.7
F'uc (MPa)	> 30
e' Factor (mm/m)	< 1.0
Durability	Exposure grade
Initial rate of absorption (kg/m2 min)	0.1–0.3
Cold water absorption (%)	< 6

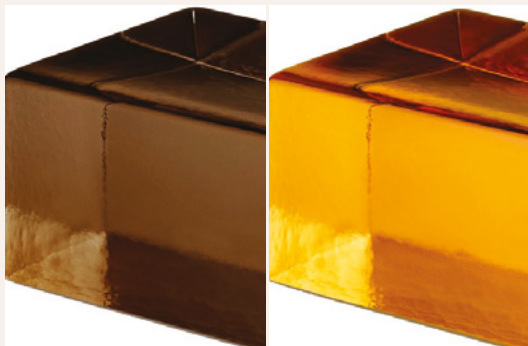
Venetian Glass Bricks



Arctic Crystal

Aqua Marine

Blue Sapphire



Smokey Quartz

Golden Amber

Refer

March Studio

Aesop Gough Street

→ Folio 4, Page 50

Venetian artisans produce glass in its finest form; pure and crystal. Their magnificent and unique work is now the centrepiece of a new range of brilliant, transparent, coloured designer glass bricks called Venetian Glass.

→ australbricks.com.au

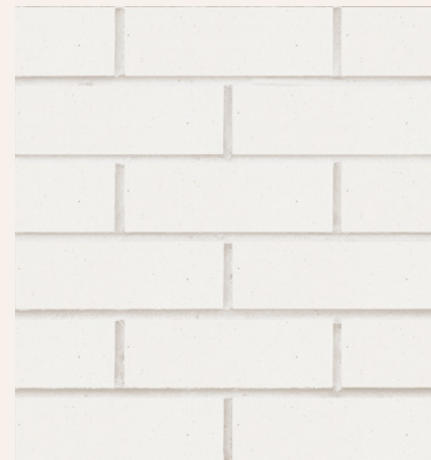
Range	
Length × width × height (mm)	230 × 110 × 76
Dimensional category	DW1
Average weight / unit (kg)	4.7
Core volume (%)	Solid
Units per m ²	48.5
Pack size	216
Characteristic unconfined compressive strength (f'uc) (MPa)	> 30
Cold Water Absorption (%)	0
Initial Rate of Absorption (IRA) (kg/m ² min)	0
e'Factor (mm/m)	0
Durability Class	Exposure grade
Liability to effloresce / Lime pitting liability	Nil
Solar Absorptance Rating	N/A

Elements: Bricks

La Paloma

Inspired by contemporary Spanish artists, the bold and confident La Paloma range of soft white and charcoal black bricks is a wonderful example of the extremities of fired clay colours. With these rare colours, outstanding quality and a range of size options, this eye-catching brick transforms buildings into works of art, in a spirit that Dali would be proud of.

Range	
Length × width × height (mm)	230 × 110 × 50
Dimensional category	DW1
Average weight / unit (kg)	2.5
Core volume (%)	0.36
Units per m ²	48.5
Pack size	432
Characteristic unconfined compressive strength (f'uc) (MPa)	> 15
Cold water absorption (%)	< 6
Initial rate of absorption (IRA) (kg/m ² min)	< 0.8
e' Factor (mm/m)	< 0.5
Durability class	Exposure grade
Liability to effloresce / Lime pitting liability	Slight
Solar absorptance rating	Light



Miro

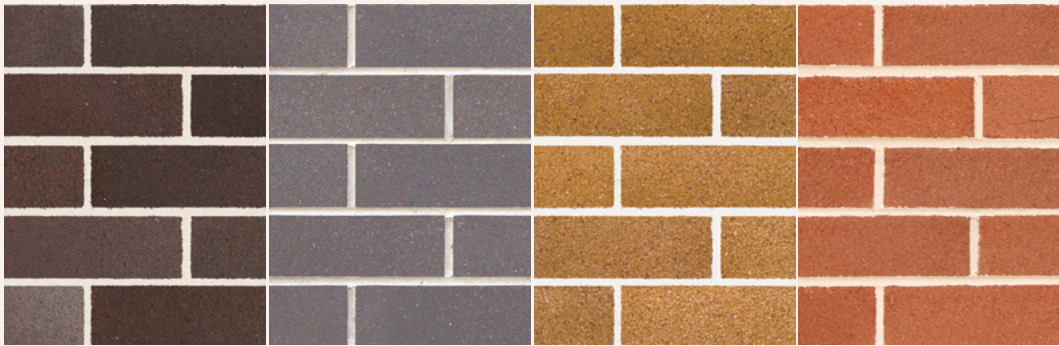
Refer

The Calile Hotel

Richards and Spence

→ Folio 4, page 82

Bowral Bricks



Bowral Blue Brahman Granite Hereford Bronze Capital Red

Proven in the harshest conditions, these bricks offer exceptional structural integrity and longevity, giving you the perfect material for a building that’s built to last.
→ bowralbricks.com.au

The unique granular patina that comes from the dry press process gives the bricks a tactile aesthetic. Their sharp edges and inherent character combine with the distinctive Bowral clay colours to create instantly recognisable Bowral Brick products. Their extensive colour palette covers the spectrum from pale and soft Chillingham white, to cool silvers, to gold, orange and red hues, to the highly sought after Bowral Blue. The quality of these distinctive bricks guarantee that they make a statement of design and integrity in any project.

Refer

- Arc**
Koichi Takada Architects
→ Folio 4, page 42
- York Street House**
Jackson Clements
Burrows Architects
→ Folio 4, page 58

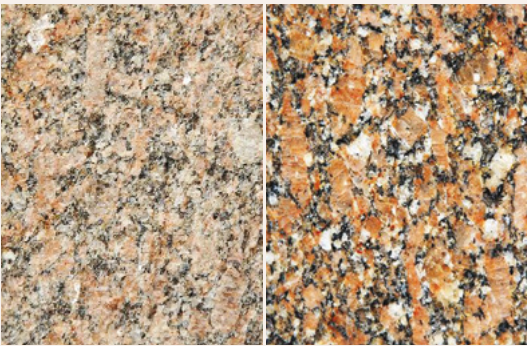
Range	
Length × width × height (mm)	230 × 110 × 76
Dimensional category	DW1
Average weight / unit (kg)	3.8
Core volume (%)	Solid
Units per m²	384
Characteristic unconfined compressive strength (f'uc) (MPa)	> 8
Cold water absorption (%)	< 15
Initial rate of absorption (kg/m2 min)	1.0–8.0
e' Factor (mm/m)	< 1.2
Durability	Exposure grade
Liability to effloresce / Lime pitting liability	Nil to Slight
Solar Absorptance Rating	Dark
except Capital Red	n/a

UrbanStone, Natural Stone Australian series

UrbanStone offers locally sourced, enduring materials through the Natural Stone Australian Series. The range sources natural stone from key locations around Australia, which is then refined and crafted to produce a memorable series of great colours and textures. → urbanstone.com.au

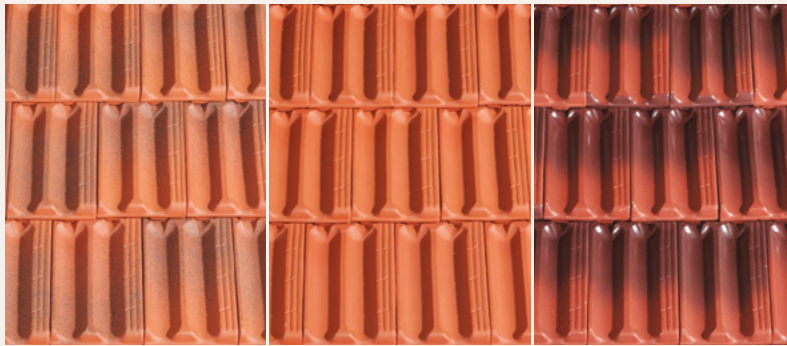
Refer

- Anzac Memorial**
JPW in collaboration with the NSW
Government Architect’s Office
→ Folio 4, Page 14



Desert Brown Desert Brown
—Exfoliated —Honed

Bristile Roofing



Jaspee Roja

Roja

Burnt Ochre



Truffle

Slate

Granite

Not all roofing materials are created equal. Meticulously crafted from natural material and kiln-fired to solidify their form, Bristile Roofing's La Escandella Terracotta Roof Tiles offer everlasting beauty.

→ bristilerroofing.com.au



La Escandella Terracotta roof tiles have developed a reputation for achieving the highest quality colours and finishes comparable to any ceramic tile in the Australian market. Available in a variety of profiles and collection of colours, Bristile Roofing offers a range of options designed to suit any style. The extensive range has been kiln-fired to lock in the colour for the life of the tile. Tiles are available in single, two-tone, natural clay and glazed colours to suit all tastes and requirements. With the best quality raw materials for strong, long lasting colours, La Escandella Terracotta roof tiles will stand the test of time.

The Marseille tile continues the proud tradition of the tile makers craft, offering a tile that suits a range of architectural styles. Its sharp, clean lines and natural terracotta colour palette give the Marseille a timeless look that has resulted in its enduring popularity. Offering the colour longevity and style of terracotta, the Marseille is ideal for homes of distinction.

Marseille	
Length × width × height (mm)	466 × 260 × 55
Watercourse width (mm)	35
Average weight / unit (kg)	3.6
Units per m ²	11.1
Average weight per m ² (kg) <i>tiles only</i>	39.96
Head lap:	↓
Minimum	61.5
Maximum	71
Minimum pitch:	↓
with sarking	15°
without sarking	20°
Bonding method	Cross bond

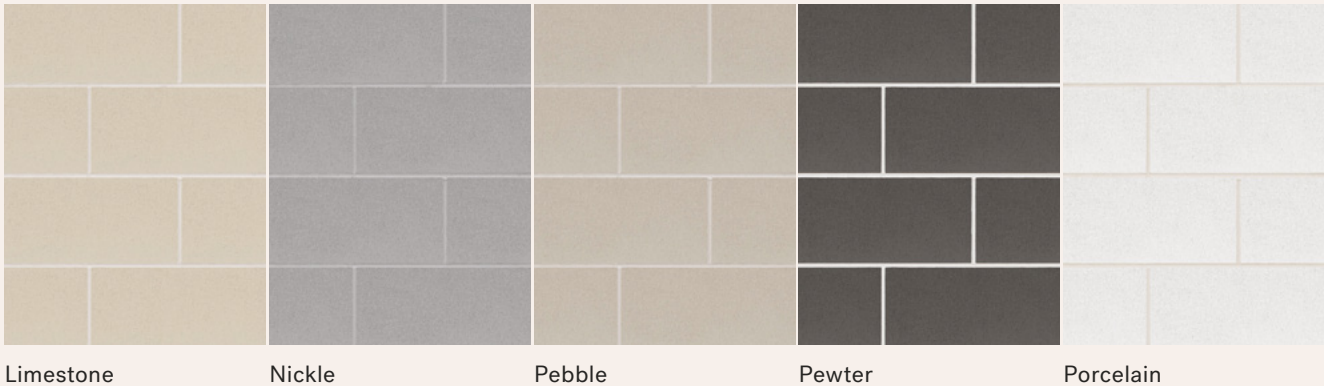
Refer

The Beehive

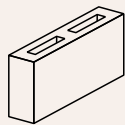
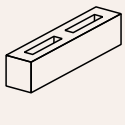
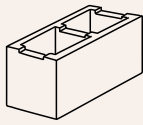
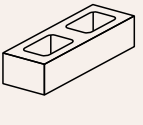
Raffaello and Luigi Rosselli

→ Folio 4, Page 26

GB Masonry Smooth



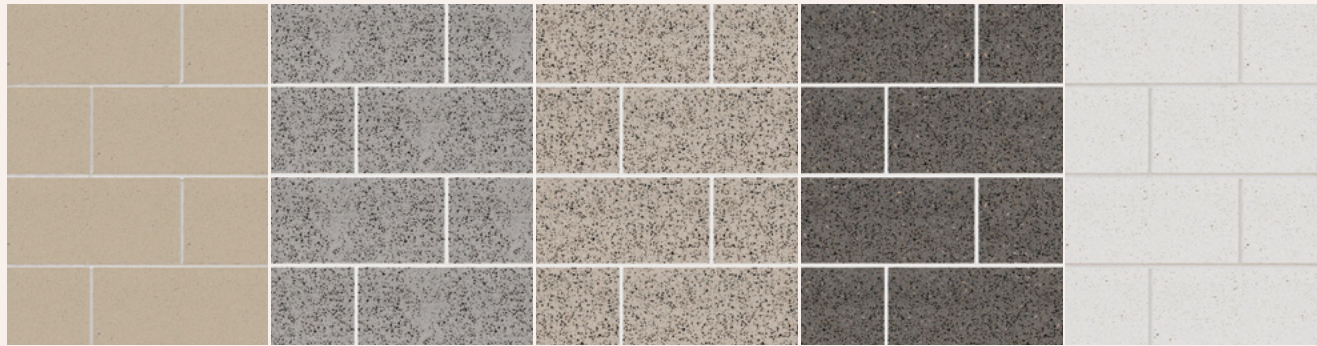
The GB Masonry Smooth block has been designed to complement contemporary designs, with benefits including good sound insulation, thermal mass, environmental impact, colours and finishes, ongoing maintenance and more. It has a finely textured finish created through the standard moulding process and is available in a range of sizes to suit various applications. More styles available. → australmasonry.com.au

	90mm Standard Veneer	90mm Standard Half Height	190mm Channel	190mm Standard Half Height
				
Nominal dimensions Width × height × length (mm)	100 × 200 × 400	100 × 100 × 400	200 × 200 × 400	200 × 100 × 400
Actual dimensions Width × height × length (mm)	90 × 190 × 390	90 × 90 × 390	190 × 190 × 390	190 × 90 × 390
Core volume (%)	< 30	28	> 30	47
Characteristic unconfined compressive strength (MPa)	> 15			
Min. face shell thickness (mm)	25	25	30	30
Average block weight (kg)	11.0	5.3	15.0	8.0
Average number per tonne	90	189	64	125
Number per pallet	180	360	90	180
Number per m²	12.5	25 or 2.5 / lineal meter as caps	12.5	25 or 2.5 / lineal meter as caps
Durability (to AS4456.10)	General Purpose			
Wall mass including:				
Mortar hollow (kg/m²)	150	147	204	218
Fire resistance levels:				
Structural Adequacy	60 to 240			
Integrity	60			
Insulation	60			

Refer
City Beach College
iredale pedersen hook architects
→ Folio 4, Page 90

Elements: Masonry

GB Masonry Honed



Limestone

Nickle

Pebble

Pewter

Porcelain

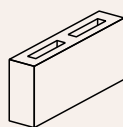
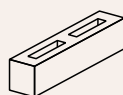
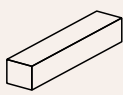
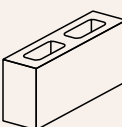
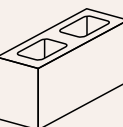
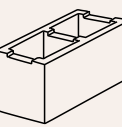
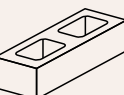
Embrace the elegance of GB Masonry Honed blocks as their subtle sparkle of natural aggregate shines through. Porcelain, Limestone, Pebble, and Nickel are just a few colours that comprise the elegant and versatile colour range of GB Honed. More styles available. → australmasonry.com.au

Refer

NewsteadSeries

bureau^proberts

→ Folio 4, Page 74

	Standard Veneer	Standard Half Height	40mm Veneer	Standard	Standard	Channel	Standard Half Height
NewsteadSeries bureau^proberts → Folio 4, Page 74							
Nominal dimensions Width × height × length (mm)	100 × 200 × 400	100 × 100 × 400	100 × 50 × 400	200 × 400 × 400	200 × 200 × 400	200 × 200 × 400	200 × 100 × 400
Actual dimensions Width × height × length (mm)	90 × 190 × 390	90 × 90 × 390	90 × 40 × 390	140 × 190 × 390	190 × 190 × 390	190 × 190 × 390	190 × 90 × 390
Core volume (%)	27	28	—	42	47	48	47
Characteristic unconfined compressive strength (MPa)	> 15						
Min. face shell thickness (mm)	25	25	40	25	30	30	30
Average block weight (kg)	10.0 ± 0.10	5.3 ± 0.05	3.1 ± 0.03	14.3 ± 0.14	15.2 ± 0.15	15.2 ± 0.15	8.0 ± 0.08
Average number per tonne	100	189	323	70	66	66	125
Number per pallet	180	360	480	120	90	90	180
Number per m²	12.5	25 or 2.5 / lineal meter as caps	50 or 2.5 / lineal meter as caps	12.5	12.5	12.5	12.5
Durability (to AS4456.10)	General Purpose						
Wall mass including:							
Mortar hollow (kg/m²)	132	147	—	186	199	199	218
Mortar core filled (kg/m²)	—	—	—	323	407	414	433
Fire resistance levels:							
Fire rating—Hollow	60 to 240 / 60 / 60*						
Fire rating—Core filled	60 to 240 / 60 / 60*			60 to 240 / 120 / 120*	60 to 240 / 240 / 240*		
Bare wall rating Rw (Hollow)	—			50			

Terraçade XP

Terraçade XP is available in six colourfast colours and two modern profiles, developed to suit any style. Australia's rich and diverse landscape was the inspiration behind Terraçade XP's earthy colour palette, with a range of natural tones to suit any environment.
→ terraçade.com.au



Kalbarri

Pilbara

Kimberley

Tennant

Bunbury

Whitehaven

The beauty of Terraçade XP is that it can be used as a facade for an entire building or as a creative feature wall to complement innovative architectural project designs. Robust, colourfast, and durable Terraçade XP provides naturally beautiful, low maintenance properties with outstanding longevity.

Refer

Eastern Clinical Development expansion, St Andrew's Hospital
Wiltshire + Swain

→ Folio 4, Page 98



Tile	
Nominal Tile Dimensions	300 × 590 mm
Mass	~9kg
Cold Water Absorption	4-6%
Modulus of Rupture (Longitudinal)	29.5 MPa
Modulus of Rupture (Transverse)	16.6 MPa
Breaking Load (Longitudinal)	> 4.0 kN
Breaking Load (Transverse)	> 3.0kn
Coefficient of Thermal Expansion	5-10 × 10 ⁻⁶ / °C
Durability Class	Exposure
Impact Breaking Load	> 85 J

Horizontal Rail	
Length (m)	3.6
Coefficient of Thermal Expansion	2.34 × 10 ⁻⁵ / °C
IXX (mm ⁴)	1.09 × 10 ⁵
IYY (mm ⁴)	7.13 × 10 ⁵
E (GPa)	69

Note—All technical data correct at time of printing

Contributors

Michelle Bailey is a Brisbane-based writer and graduate of architecture from the *University of Queensland*. She writes regularly for local and national publications about architecture and design, including *HOUSES* and *GREEN* Magazines.

Marcus Baumgart is a founding partner of *Baumgart Clark Architects*, based in Melbourne Australia. He is a contributor to several architecture publications, and the author and editor of the blog *www.help.design*, which explores issues relating to design, the built environment and life.

Rachael Bernstone is a freelance journalist based in Perth. She has a Masters in Architecture History and Theory, and completed a *Churchill Fellowship* into Sustainable and Affordable Housing in 2003. She edited *Steel Profile* for 10 years and has written for *Houses* and *Habitus* magazines, among others.

Margie Fraser is a freelance design writer and editor covering architecture, art, landscape architecture interior design for both Australian and international journals. She documents her interests in travel, food and design via her blog, *More Margie*.

Tobias Horrocks is an award-winning architect who specialises in recyclable

installations and furniture under the name *Fold Theory*. He recently relocated to regional Victoria from Sydney, and teaches design, theory and history in Melbourne's tertiary architecture and design sector.

Stephen Lacey is a freelance writer with keen interest in architecture, design and building. He has written for national and international magazines and newspapers on an eclectic range of subjects and has authored three novels. He has been Shortlisted for the Commonwealth Writer's Prize. Lacey lives in Sydney's Inner West.

Peter Salhani is a freelance writer based in Bondi. His interviews and articles online and in print examine Australian architecture and urban landscape, its projects and people.

Kate Springer is a Hong Kong-based freelance journalist who covers travel, food, culture, architecture and design. Her work has been published by *Condé Nast Traveler*, *CNN*, *BBC Travel*, *Travel & Leisure*, *Sotheby's*, *WWD*, *Forbes Travel Guide* and more.

Stephen Todd is the Design Editor of the *Australian Financial Review* newspaper and a columnist for *Belle* magazine, and consults on strategic communication and branding to architects, designers and institutions.

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