ED
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EDITORIAL
Welcome to Steel Profile 118.
We are, as always, proud to bring you a profile of the country’s most remarkable steel buildings and glimpses into the inspired minds responsible for them.
BlueScope has launched a new website that features additional content to that found in print. For the past few issues we have alerted readers about the presence of videos in which architects and other contributors further discuss their projects. In this issue, new icons on the pages indicate extra design resources for BlueScope’s customer profiles. These can be found at steel.com.au/steelprofile.

One project bearing such icons adorns our cover. Drew Heath’s design for a modest bush retreat tempers the brutality of steel shipping containers with a graceful roof canopy.

We were also lucky enough to catch up with British ‘starchitect’ David Adjaye at the Australian Institute of Architects’ National Conference in Perth and discussed his obsession with metal’s elemental qualities.

We trust you will find both the print and online mediums enjoyable and useful.

We release feel free to share your thoughts via info@steelprofile.com.au

Kristin Camery
BlueScope editor

ADAM HADDOW
Adam is a director of SJB Architects NSW. He was awarded the 40th Anniversary Chartered Fellowship in 2016 to study alternatives to conventional models of urban design. SJB Architects recently won two Australian Institute of Architects NSW Awards for Multi-Housing.

More than anything, he loves to design buildings

FRANK STANISIC
Frank Stanisic is a Sydney-based architect and urbanist. He works is fuelled by an evolving interest in the theatre of its interior and the aesthetics of permanency.

Frank’s projects have won numerous awards including Australian Institute of Architects’ Special Jury, Wilkinson, ‘Aureus Suite and Frederic Rambou

SAUT STEPHENSON
Saut Stephen is a graduate architect with Melbourne-based architectural and urban design practice, Melbourne Associates Design Architects (MADG). Graduating from the University of Technology with a Bachelor of Architecture (First Class Honours) in 2013, Sam was awarded the 2013 BlueScope Steel-Gillespie Merit Award. Student Prize

Coverage Project Outpost 90715
Photographer Brett Bernstone

**EDITORIAL ADVISORY PANEL**
Steel Profile has established an Editorial Advisory Panel to ensure that only projects of the highest calibre are selected for publication. The panelists are:

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**TOWNSEND + ASSOCIATES** Architects sought an economical and tough materiality to finish the walls of a Carlton toilet block and found it in a material more commonly used for fencing.

**Tramec Associates** has welded a steel mega structure with sanity and flair to redefine an existing coastal retreat.

**Orientex** has wielded its design resources for steel buildings and glimpses into the inspired minds responsible for them.

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**Principal/Corporate Partner**

**Australian Institute of Architects**
Like the mountain bikes that inspired it, this tiny retreat in the bush combines aggression and elegance in its all-steel construction.

ARCHITECT
Drew Heath Architect

PROJECT
Outpost 74213 S

LOCATION
Central Coast Hinterland, New South Wales
On a still autumn day, with big clouds rolling outwards in the massive blue sky, it’s hard to imagine anything spoiling the serenity of this setting. Birdbirds – whip birds, bellbirds and the occasional interjection from a laughing kookaburra – is the only noise to break the silence.

So it seems somewhat incongruous to come across a tiny steel retreat made mostly from shipping containers perched above a sandstone outcrop, as if about to leap into the valley below: It’s a building that shares many traits with mountain biking, the activity that brought its owners to this area of rugged bushland in the first place.

“Because it’s a mountain bike camp, I saw the building as a machine, as a bicycle itself,” says architect Drew Heath. “The bike has a steel frame and so does the building. There are various gizmos attached to the bike, same with this building, the bike has a seat, and this building provides somewhere to sit as well.”

When it was first mooted, the concept for this base camp was not nearly so refined and daring, according to builder Daniel Girling-Butcher. “The client approached me in March 2013 and said he’d bought this property and was interested in putting some shipping containers – which he’d chosen for budget reasons – on the site,” he explains. “I mentioned this to Drew, sounding somewhat in the pub about this job that had fallen into my lap, and Drew showed some interest. He gave the project quite a lift.”

Heath saw an opportunity to take the ‘building blocks’ and create something remarkable. He contacted the clients to outline his scheme. “The clients were people I’d already done a house for, and so when Daniel mentioned they had a block of land and were thinking about building a mountain bike base camp out of containers, I thought it sounded interesting,” he says. “That same day, I did a sketch and emailed it to the clients, trying to invite myself into the job. They liked it, so I managed to muscle in on the project. “Originally it was just going to be containers on the ground with a roof over the top – with much less budget than what was eventually spent – but Drew enhanced it,” Girling-Butcher adds. “And the clients were ultimately quite happy that I’d had that conversation with him.”

“Driving onto the property via dirt road, the site slopes gently downhill, culminating in a teardrop-shaped turning circle, below which the ground drops away steeply. Upwards of the track, a couple of shipping containers used to store bikes and less often-used gear are plonked onto the ground. These continue to serve as a reminder that without Heath’s intervention the new building would probably have been located close by them – and would look much the same. 📚

“I had a very simple scheme in the back of my mind: an image of a boat ramp with two singular tracks that head off into landscape, with a floating roof above”

The design of the completed building largely deviated from Heath’s original concept, as illustrated in his sketchbook (right)
Instead, he suggested that a sandstone outcrop near the cliff top was the best place to build. “To me it just said ‘building’; we could anchor a building onto it and do something that was adventurous, structurally,” Heath says. “The idea of constructing a flat plane to sit the containers on – to get them off the ground and provide some deck space – arose because the site was so steep: you needed a platform floating above the landscape for access into the landscape.”

He carefully arranged three containers in one line to make the outlook over the gully and bush the hero. “This site has an orientation that turns us to a great view, which also has a northerly aspect, so that seemed the place to start,” he says. “I had a very simple outline in the back of my mind, an image of a level ramp with two singular tracks that head off into landscape, with a floating roof above.”

“To satisfy the brief for more space, I just kept adding containers behind the first one, to accommodate bedrooms, bathrooms and storage, and then inserted spaces in between for outdoor rooms.”

“The idea was to relate the containers to their own individual outdoor space, and to claim that with space between them,” Heath says. “It also facilitates ventilation – the containers are essentially closed steel boxes that need ventilation on all sides – so from a thermal perspective, it was good to have them freestanding.”

In fact he added a warmth and softness to the inside, Heath says. “We lined the containers with a warm-coloured plywood to create timber cocoons for people to live in.”

Each of the containers was reconfigured with new openings and doors to suit their position in the project. The front unit – which contains the kitchen – has the largest openings, including a cantilevered deck on hydraulic hinges that closes to seal the container. “The outside of the containers is all steel and all grey, as we wanted to make them warm and soft inside,” Heath says. “We lined them with a warm-coloured plywood to create timber cocoons for people to live in.”

The central container houses three bedrooms, with pivoting doors at both ends and a sliding door in the middle, while the rear container houses two bathrooms and a storage space. Heath explained how to construct the building: “The site was partly a budget decision – to reduce off-cuts – but also because working in the workshop was far more beneficial: we were undercover, closer to suppliers, and people didn’t get lost trying to find the site.”

“The elements were then trucked to site and assembled over a 10-day period leading up to Christmas in December 2013, with final touches completed over several months in January 2014. The structural steel supports – six 200 C46 sections – were drilled into the sandstone and secured with concrete anchor bolts. Beams were installed, then the shipping containers were craned on to the southern end of the platform and wedged outward to their final position. Steel walkways were installed as...”

“Once I’d seen the containers purely as steel boxes, I was determined to make every external element steel.”
The structure is simple and although this is a low-budget building, there is a sense of elegance in its simplicity.

The building came together so easily that the client gave us a lot of space,” he says. “He was very happy with the outcome and everyone else a lot of freedom to work as they liked.”

For Heath, the process of working on a small building – as opposed to an all-steel exterior – with the team – architect, builder and steel/fabricator – had worked together on previous projects, they shared an unspoken understanding and sense of familiarity in relation to construction methods, detailing and expectations around build quality, which enhanced that sense of freedom.

For Heath, the process of working on a small building in a bush setting that didn’t require the same level of documentation as regular projects was extremely satisfying, and the results are no less spectacular than his earlier works. “I love the surprise and drama of dropping down the front deck and going out on to that handrail-free perch overlooking the valley,” he says.

Unorthodox it may be, yet the building is an elegant metaphor for mountain biking. Sitting on the cantilevered deck looking into the unknown, everyone else a lot of freedom to work as they liked.”

For his part, Girling-Butcher is glad he had that fortuitous conversation with his mate in the pub about an unusual project that he’d just taken on. “In its entirety, this job was fantastic because the client gave us a lot of space,” he says. “He was involved in the layout and was of course interested in what we were doing, but he gave Drom and everyone else a lot of freedom to work as they liked.”

And because the team – architect, builder and steel/fabricator – had worked together on previous projects, they shared an unspoken understanding and sense of familiarity in relation to construction methods, detailing and expectations around build quality, which enhanced that sense of freedom.

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The playful elongated-harlequin patterns of this new performing arts venue create a lively geometric camouflage effect and allude to the theatrics of its interior.

Words: John de Manincor  Photography: Scott Burrows
Educating children is not an easy task. Teachers, administrators, caregivers and parents invest enormous amounts of energy to ensure future generations are given every opportunity to learn and excel. Beyond the “sweat equity” of family and faculty is the vast fiscal investment required to fuel the pedagogical fire.

St Peters Lutheran College in the Brisbane suburb of Indooroopilly was established in 1945 and has since grown at a steady rate. The College understands that good things take time and that investment in its infrastructure will yield dividends. Importantly, there is a great tradition of the College community investing in quality architecture. In 1966 parents and friends raised $60,000 and the College borrowed $70,000 to build a new chapel by the famous Viennese-born, Brisbane-based architect Karl Langer. Completed in 1968, the chapel sits at the apex of the campus, metaphysically and topographically. In 1995 the College community once again embarked on an ambitious fund-raising program, this time for a major facility for the teaching and performance of music and drama.

Brisbane architects Phillips Smith Conwell (PSC) won an invited design competition for a scheme that was somewhat different to what was built as the College’s flagship facility. Eventually the project brief expanded to include a 1000-seat performance venue, rehearsal and tutorial rooms, and associated support spaces.

The back-of-house is a crisply detailed “box” with cladding made from COLORBOND® Metallic steel in Stramit Longspan® profile, in the colour Facade®. Steep terraced embankments with luscious planting designed by the College’s own landscape team lead to an elevated court which is the true heart of the campus.

From here the diagram of the new performing arts facility is immediately clear; two cubic volumes are separated by a two-storey glazed facade that defines the entry and the primary circulation spaces. During a tour of the venue with the College’s director of music, Christine Taylor, the place was buzzing with students. First stop on our tour was the main auditorium where a solo flautist was playing “un-plugged.” In any performance venue, acoustics are paramount, and for this building PSC’s project director Philip Ward says the architects undertook: “A first principles analysis of the functional requirements of the music and drama program... to create a natural acoustic with minimal reliance on technology.”

“Any energy went into getting this space right; the acoustics and the experience of this space were really important,” adds Taylor. “There was not a lot (of money) left over for the outside.”

Indeed, the sheer quantum of accommodation and the complexities associated with acoustic treatments put considerable pressure on the project budget. With the modest funds available, this fabulous asset for St Peters was made economically feasible through the architect’s thoughtful integration of steel building products.

One of the project’s great successes is a new covered amphitheatre carved into the hillside. Two crisp white horizontal canopies define the double-height entry space lined in perforated Stramit® Acoustic Panels made from COLORBOND® steel in the colour Surfmist®. ☛
This simple graphic facade – created entirely with a restrained palette of COLO® steel colours – articulates what is essentially a big shed in an elegant and dynamic way. It addresses the singularity of the over-sized entry canopies, while concealing secondary structural elements. The auditorium volume cladding is made from COLORBOND® steel in Stramit Longspan® profile, in a clever combination of colours including Monument®® and the COLORBOND® Metallic colours Anod® and Facade®. These forms a playful, streamlined harlequin pattern. The result is a geometric camouflage effect that articulates what is essentially a big shed in an elegant and dynamic way. We admire the boldness – articulates what is essentially a big shed in an elegant and dynamic way.

While the patterning of the decorative facade has no pragmatic role, it adds interest and a unique identity.
As a child, David Adjaye quickly learned to appreciate, interrogate and seek out difference. Born to Ghanaian parents in Tanzania, he lived in 12 African countries – following the path of his diplomat father – until the age of 14 when the family moved to London. He studied architecture at London South Bank University and the Royal College of Art, and continued his engagement with the African continent after graduating, eventually visiting 53 major African cities over the course of a decade.

“I was visiting the continent almost every other month between 2000 and 2011, so a sort of double-world was happening,” he recalls. The images he captured during those travels – of cities, buildings, people and landscapes – form the basis of his seven-volume book, Adjaye Africa Architecture, which divides the continent into six geographic zones. These zones generate similar approaches to architecture and building, irrespective of political and cultural differences, Adjaye says.

His accomplishment in completing this mammoth and unprecedented task demonstrates that Adjaye possesses an unusual ability to get to the nub of a place through analysis of its geography. Unlike other ‘starchitects’ – whose buildings often share a similar aesthetic and palette of materials no matter where they are in the world – Adjaye’s projects are firmly rooted in the local.

“I’m fundamentally interested in the way that specificity-to-geography and climate can create meaning and reason in architecture,” Adjaye says.

After graduating, Adjaye worked for Chassay Architects (1988-90), David Chipperfield Architects and Eduardo Souto de Moura Architects (both 1991) before partnering with William Russell to launch Adjaye & Russell in 1994. He then established his own firm – Adjaye Associates – in London in 2000. His practice began on a typical footing, starting with small-scale residential alterations and additions, and single-family houses. One of these, for actor Ewan McGregor (2000) featured steel columns and beams that enabled Adjaye to create larger volumes to contrast with the smaller, segregated rooms of the original Victorian terrace.

“Steel work was very important in the early parts of my career when I was dealing with the existing city and trying to remodel and create contemporary life,” he says. “That was about using steel to reinforce or create exoskeletons into masonry structures, to create new spans and new possibilities for contemporary life. Without steel, it would have been impossible to do any of that work.”

Having undertaken several small public building projects in London, including the Stephen Lawrence Centre and two public libraries called idea Stores, the scope and reach of the practice started to shift in 2004, when Adjaye won his first commission in the USA. The new Denver Museum of Contemporary Art is a modest 2250m² building over three stories that hosts temporary exhibitions. It features naturally lit galleries bounded by steel-framed, double-glazed curtain walls, which accentuate permeability and transparency. They offer a stark contrast with the house he also designed next door – for MCA board...
Other global projects since then include the projects around the world.”

“We won the hotel, gym and conference centre under one roof,” Arcobalo says. “We put the entire program of school, car park, cemented when his scheme for a new business district partnered with the Smithonian Institute in Washington DC. Six years into an eight-year build, the museum is the last “palace of culture” currently under construction for the Smithsonian. The museum's defining feature is its façade, which presents a windowless face to the street and is clad in black weathering steel. “It's a very simple form – it's clipped together – that by placing another narrative into it. “The lens is about understanding what the United States is, so I became really excited by this project when we won it,” he adds. “And the building needed to signify a different narrative right from the outside.”

Rather than elevating the museum on a monumental plinth, like its Greek-Roman style neighbours, Adjaye buried its footprint underground. “The plinth is submerged with a cube on top, to make an urban room,” he says. “The steelwork is coming out of the ground now for the cube, which will contain the biggest exhibition space in Washington. You'll be able to dive into the whole of African American history and culture from 1860 onwards in one room.”

Having worked all over the world, and on many building types, Adjaye deliberately sets himself apart from his peers who enjoy similar international standing. “I don't think there's anything wrong with the term generic,” he says. “By generic, I mean that by placing another narrative into it. Sometimes buildings are just about making stuff that just has to happen, and that's actually an amazing part of what we do. Sometimes there are moments when an element of innovation is required, but these approaches are totally equal.”

“We've become obsessed with the avant garde as a signature of design,” he adds, “but it's not really about that. It's about understanding exactly what's appropriate for each condition. We're not so rigid that we think there's anything wrong with stuff that's already there, to give people back their space, but actually design gives us an opportunity to show restraint. It's about: ‘How much can you not do?’ That's the art of architecture.”

“As young architects trying to make the city, I think we believe that architecture is about trying to do stuff, but actually design gives us an opportunity to show restraint. It's about: ‘How much can you not do?’ That's the art of architecture.”

Speaking at the same conference in Perth, South African architect Jo Butler acknowledged the value of Adjaye’s travels and curiosity about Africa. “David’s work is wonderful and the resonance he has done on the African city has been a shot in the arm for African architects,” Naoro says. “It’s a remarkable project. He’s not living in Africa to come with very clear eyes, and to write the books that you write, which have fundamentally shifted the way we think about African architecture. We are very grateful for that.”

In closing, Adjaye was asked whether he has a favourite place or project, or has found a building type or location more stimulating or thought-provoking than others, and he laughs. “I’ll never say I prefer somewhere, I would [say] my entire argument,” he explains. “I’m in awe of the planet and all its diversity, so it’s continually about discovering new ways in which the planet has evolved to its geography that is fascinating. “It’s why I love travelling, why I look to going to new places,” he adds. “It’s not simply to just tour, but to really experience the kind of multiplicity of the way in which the planet has evolved, and people have evolved etc, and how they are. So, no, no favourites, just continually enjoying it.”

The world of contemporary architecture is richer for his incredible insubordination and ability to translate his new knowledge into buildings that — wherever they are in the world — blend geography and location with cultural and historical meaning to create their own unique qualities. Through his intuitive understanding and analysis of place, the global architect David Adjaye creates buildings that provide local resonances for the people who experience them. SP
A steel and glass canopy at Melbourne’s iconic Federation Square pushes the boundaries of engineering and construction to create an otherworldly shelter.

Words Alex Taylor Photography Trevor Mein
A lot of people don’t realise that there are no big steel beams, it’s completely self-supporting using just BlueScope XLERPLATE® steel welded together.
“The structural engineers weren’t delighted with our proposal,” he recalls, “because once you once you start squashing the structure over — rather than using a perpendicular extrusion — it becomes much less efficient.

The project progressed through many computer programs, firstly at Maddison where the original concept was created in SketchUp. Design was undertaken in Rhino and documentation in AutoCAD, then at Hyder, where Strand7 was used for structural analysis, and finally at Two Feathers, the shop drawing detailer, where Inventor was used for the steel work. McLaren says it was a demanding process to determine the spans and a uniform steel thickness that would support the entire canopy.

“When we brought the scheme to Hyder it was fairly well developed but it was difficult for the engineers to intuitively say: ‘Yes, that span will work,’ or ‘We can use this thickness of steel,’” McLaren says. “They imported our 3D model into their 3D modelling system to look at every element in terms of deflection and stresses on it.

“We’ve got beautiful images from Hyder’s 3D model that show how stresses are increasing as the canopy tries to cantilever out further away from its supports,” McLaren continues. “We would have had a dozen different schemes going back and forth where we adjusted the size of the hexagons, and how far they were stretching from one column support to another, so the engineers could give us detailed feedback.”

The hexagons are a uniform size on top of the canopy — they had to be in order to install identical glass panels over each one — but the roof pitch changes on three angles (12, six and 12 degrees respectively) making them irregular underneath.

“Hyder were fantastic in enabling us to refine that structural system down to just eight millimeter-thick steel plate throughout,” McLaren says. “A lot of people don’t realise when they look at the structure that there are no big steel beams, there’s nothing hidden to hold it up: it’s completely self-supporting using just 8mm thick BlueScope XLERPLATE® steel welded together.

“There are not many structures that do that,” he adds. “Hyder had never tested it before, and it was new for us, so they did a great job researching it to such an extent.”

For structural engineer and Hyder associate director Dominic Li, working on this project was a career highlight. “This is one of the most challenging projects I have been involved in because of its geometry,” he says. “I don’t know how we could have done it without the aid of 3D design and documentation software.”

The team initially considered two possible construction materials for the canopy, but, with input from the fabricator, eventually settled on BlueScope XLERPLATE® steel 250 Grade 8mm-thick plate. “We were conscious of keeping the total weight of glass and structure down, because the project cost would have doubled if we’d had to reinforce the supporting columns at railway track level,” McLaren says.

“That’s why we looked at aluminium as an alternative for the structure, but our research revealed that steel was the most economic and logical, in terms of ease of fabrication and working on site.”

“Panel says

The architecture of Federation Square is so rich and complex that it’s a difficult proposition to design new spaces that will sit comfortably within the existing built form. This all-steel canopy process, though, is its own unique honeycomb structural steel system that was developed to achieve precise sun control in particularly effective. We like both the scale of the canopy and the up-tilt of the front edge, a simple gesture that alerts people in the plaza below to its presence from afar. These qualities help the Cloud Canopy to assert its own unique presence while integrating with the architectural fabric of Fed Square. As a small yet highly detailed insertion, we think it makes a compelling contribution to Melbourne’s urban landscape.

We’ve got beautiful images from Hyder’s 3D model that show how stresses are increasing as the canopy tries to cantilever out further away from its supports.”
To meet the requirement of a short on-site construction period – a mere 10 weeks from September to November 2012 – the team worked hard to refine the pre-fabrication processes to streamline construction, treatment, delivery and assembly on site. “To achieve that, both our client and our partners at Fed Square management’s support, we had a shop drawing team directed by Julian Featherstone from Custometal Engineering, who managed this entire section. Through this, we managed to open up a way to do that – while still adhering to the design done within the tolerance of the whole structure, within a few small pieces of accuracy.”

The original shop drawings had the canopy divided into 10 sections for transport and delivery but the steel fabricator Rob Nenlay from Custometal Engineering, chose to divide it into 70 pieces. “Getting the different pieces to the point, then to site, required a pilot a jet and driving through the city as an exercise in patience,” says Nenlay. “Also, the weight limitations of the cranes also forced us to do that which we didn’t want to do, which is to divide it into 70 sections so each section could be handled.”

The decision to use BlackScope KLEPTOS® steel was made primarily by the fabricator, although architect and engineer stipulated the thickness of the plate and the tolerance of the chosen product would perform to specification. “It really was our choice,” Nenlay says. “With the ISM ISO 9001 certifications, we can use Australian steel product, we can make a decision to use a different supplier. But, if we didn’t have that kind of quality steel, we wouldn’t have the product we have today.”

The hexagonal canopy is supported by six ‘trees’ – trees that each have three ‘branches’. Fear of the ‘trees’ were made using mild steel and two were constructed with stainless steel, they function as integrated supports. All of the steel was treated with a four-year paint system that is not expected to last for 50 years, the canopy was finished with a metallic gold paint in the colour FX-45/088, which gives it the impression of glowing or sparkling depending on the sun’s angle, while the ‘trees’ were painted in grey, so they appear to recede into the hard ground.

At night, each of the 180 hexagons are hit with LED lighting, three stream the southern sides three light fittings hit the leading edge to expose the belly of the canopy, which reduces energy consumption. “There is no need for daytime lighting, which reduces energy consumption,” says Nenlay. “The canopy provides some unexpected delight to be certain – something special in that place, and so while what we know to be a quality, consistent product.”

“Through this, we managed to open up a way to do that – while still adhering to the design done within the tolerance of the whole structure, within a few small pieces of accuracy.”

The canopy provides some unexpected delight to be certain – something special in that place, and so while what we know to be a quality, consistent product.”

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“The canopy provides some unexpected delight to be certain – something special in that place, and so while what we know to be a quality, consistent product.”
This relaxed and elegant hinterland residence uses steel and glass to redefine the traditional lightweight coastal retreat.

Words: Micky Pinkerton   Photographs: Paul Bradshaw
because of the nature you can create a minimum material…

Steel gives you maximum span for minimum material; the vast roof demanded oversized accessories to match. A custom-made gutter made from stainless steel 316 and measuring 180mm across runs along the narrower dimension of the roof. It forms an architectural element in itself, as well as collecting rainwater which is recycled to irrigate the extensive gardens.

Beneath the roof, the super-structure was constructed from a variety of RHS, UC, UB, EA, UA, PFC and T-beam steel sections. Steel was chosen for its structural properties but also for its dimensional stability. “Steel gives you maximum span for minimum material, in other words you can create a very glossy home because of the nature of the structure,” says Tzannes. “To try to make this out of timber or aluminium, they’re more volatile materials and tend to move around a lot more, which makes moving glass elements and other moving elements such as louvres more difficult to manage simply because they jam. So the project was definitely tailor-made for steel and no other material.”

Tzannes sees skills transference as an important part of the architect’s role and used local steel fabricators on the build. He also engaged a regionally-based architect to do the documentation and contract administration. Sarah Foley, of Boolangooloo Foley, had first-hand knowledge of Tzannes’ approach having spent time in his practice as a work experience student and then more comprehensively in her year out.

“Steel gives you maximum span for minimum material… you can create a very glossy home because of the nature of the structure”
between architecture degrees. Tzannes describes Foley as an ‘exceptional’ young architect who was an effusive and collaborative design partner, and who understood the value of detailing and the quality of work that they wanted to achieve. For her part, Foley relished the opportunity to work with her early mentor once again.

“The experience was great and it was critical to have had that year of working with Alex in Sydney so I could translate his ideas into the structure,” says Foley. “I knew the level of finish that they generally aimed for and the palette of materials and the palette of fixtures to incorporate into the building. So I could take that sketch design and translate it fairly easily — it was almost trying to keep the integrity of what Tzannes Associates would have followed through with had they done it all from Sydney.”

Steel features heavily in the interior detailing, too, from the balustrades and handrails to the kitchen benches and fireplace surrounds. It was a deliberate aesthetic choice, and part of an intention to integrate the interior and the exterior as much as possible. “It was possible to build a building out of material I valued,” says Tzannes. “I think that consistency of detailing from small elements to large elements reduces visual noise and makes everything hang together as a simpler element.”

This light-filled and well-ventilated building has a direct dialogue with the landscape and climate, and the interaction between inside and outside is further enriched by wrap-around verandahs and the internal arrangement of spaces. In the upper living areas, vista and scale are emphasised through the main axis, creating an expansive, elegant and inspiring environment. While on the lower level, hewn from the base of the earlier masonry house, the more intimate spaces of bedrooms and a children’s play area were developed.

The end result is a building that in five years has evolved from the original, transforming the clients’ way of living and their relationship with their surroundings. Tzannes is equally pleased with the outcome. “The thing I like most about the building is its clarity and simplicity as a structure and as a spatial idea. And just the feeling that you’re in Byron and not anywhere else,” he says. “I call it a sense of the architecture as free because the way you want to live is free. You feel as though you are in the space and the synergy between inside and outside creates variations which affect your moods and emotions, and qualities of experience.”

Whether it’s a luxurious Sydney mansion or a simply built coastal retreat, Tzannes’ intimate appreciation of place, space and form is plain to see and provides further evidence of the transcendental power of architecture.
Reprising the traditional college quadrangle with a lightweight, cloaked twist of steel roofing, this part cave, part tree-house education building provides a great sense of space, airiness and volume.

Words: Peter Hyatt; Photography: Sarah Louise; Peter Hyatt
REACH was planned as a campus ‘icon’ project, while maintaining an interactive and human scale
Wilson says that the project reflects the firm’s ethos about everything needing to be multi-purpose. He cites the wintergardens and atrium staircases as examples of elements that boast multi-purpose roles.

“Where there’s only one idea, or a single function, then it’s not really providing a full benefit or efficiency. Everything has to perform multiple roles in the building,” he says.

“The non-air-conditioned atrium allows vertical circulation; it links the two main structures and brings light and air into the space. It also functions as a thermal chimney with cooling towers, and is heated as needed by a thermal rock store,” Wilson explains. “It’s the communication and break-out space that is the heart and soul that glues the whole place together. Everything we propose and do has to be defensible,” Wilson adds. “If we can’t defend our idea then what we’re proposing is incorrect. Is there a rationale behind it? If all you can say is ‘Because I like the shape’, that simply isn’t a strong enough defence. It has to respond to the topography, to the function and then you may have something. It doesn’t mean as architects we must always be defensive, but we need a good reason to justify those major choices. That internal rigor means we’re more likely to have a defensible position for our design.”

Steel’s role as skeleton and envelope may be especially evident in the main atrium volume but is expressed right along the service walkway on the west elevation. “We have walkways on the roof and right along the west facade that really continues that industrial vernacular of the saw-tooth roof,” he explains. “But it’s highly practical. Devon has a very strict OH&S policy that plant is not to be exposed on the roof, but screened. All maintenance is safe and access that does not disrupt classes or administration.”

And then there’s the spearing signature of a raked glass and steel facade belonging to academic offices on the north-east corner which greets visitors with a laquering clarity and transparency. Wilson says this integrated expertise is vital. “The facade comprises secondary steelwork raked in two directions. You don’t just design a primary structure and clip-on glass,” he asserts. “That supporting secondary grid of steelwork involves a lot of complexity and the builders: Cockram did a fantastic job. They make it appear quite effortless.”

Wilson says steel’s utilitarian qualities are a huge part of its appeal and undervalued ‘novel’ factor. “We needed a very utilitarian finish that looked good with very low maintenance and had an inherent colour rather than applied finish, which could provide the necessary space. The inherent nature of steel and the finish of COLORBOND® steel, in particular, means it will look just as good in 10 years’ time. “We want people who enter the atrium to feel comfortable,” he adds. “Other materials could easily have felt quite oppressive, but steel has an inherent capacity to be extremely refined and elegant and we think that is achieved here.”

All construction can essentially be viewed as toy-blocks with large and reach-all is a statement building that clearly expresses its kit of parts. Is it ‘gateway’ or ‘icon’? Perhaps what matters more is Designers’ gift of a social and cultural dimension that will not be easily outmoded. The opportunity to educate health professionals dedicated for real and remote locations, in a building that is carefully situated in such a setting, is now within REACH. SP

**FLOOR PLAN**

|-------|---------|-----------|---------|-----------|-------------------|-----------------|

**LEGEND**

- Lift
- Prep classroom
- Lab
- Reception
- Office
- Lecture theatre

**PROJECT** Regional Community Health Hub (REACH) Building, Wunna Ponds Campus, Deakin University. **CLIENT** Deakin University. **ARCHITECT** Designgrove. **PROJECT TEAM** Rahim Wilson, Ornith Basyiw, Jane Lohath-Ng, Roger Schreiber, Tim Walkpole-Wilsh, Dave Papadopoulous, Sara Marquenie, Peter White, Philip Wormald, Wilson Heng, Kyle McGuire, Attilio Musolino, Christopher Fos, Trevor Cunningham. **PROJECT ENGINEER** Hinch Cassidy. **PROJECT ENGINEER (SERVICES)** Umile-Lai. **BUILDERS** Cockram Constructions. **ROOF** Supply and install Guttering. **LANDSCAPE** Architecture (GBA). **PRINCIPAL STEEL COMPONENTS** Roof cladding made from COLORBOND® steel in Surflon Speckled Ultra® profile, in the colour Windspur®. Wall cladding made from COLORBOND® steel in STRATAGRAFT® ULTRA® profile in the colour Brite Grey®. Gutters, support brackets & shop ends, downpipes & fixing brackets made from COLORBOND® steel in the colour Slate Grey®. **PROJECT SIZE 8000m²**. **TOTAL PROJECT COST** $40 million.
Florida is a key event on Canberra’s calendar, attracting 55,000 visitors each year who come to admire over one million flowers in bloom. While portable toilets were adequate for the size, popularity of the event, the City Council has since demanded more permanent amenities in the early years, the popularity of the event and the need to accommodate large numbers of visitors.

In the search for a recognisable material that resonated with the public (yet could withstand public Vogue), the architects of this toilet block, Micky Pinkerton & Associates, harnessed a prosaic steel product reminiscent of humble timber weatherboard.

The architects were thus engaged by the local authority to produce a multipurpose building which would also act as a community hub and attract visitors not just for Florida visitors but for locals throughout the year.

Starting with the context and site, the architects felt that the site was so open that it needed to respond to a nearby bank of hills and so a rising, slightly folded roof was developed, providing an expansive outlook to a nearby bank of hills and so a rising, slightly folded roof was developed, providing an expansive outlook and an open and inclusive form. From this outset the structure was imagined in steel, for its gesture and the low maintenance attributes. From the outset the structure was imagined in steel, for its gesture and the low maintenance attributes.

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What we really like about the steel cladding is that it gives the skin of the building depth and interest. A split in the colour BlueScope Shale Grey™ causes the skin to look more domestic and less toilet block-like, led them to look more domestic and less toilet block-like, led them to look more domestic and less toilet block-like. What we really like about the steel cladding is that it gives the skin of the building depth and interest.

The final result provides the low cost, low maintenance and impact-resistant structure sought by the client, while avoiding the visual sins of the ubiquitous breeze block. It also showcases a very simple but nonetheless innovative way of using a really common material.

PROJECT Commissioned by: Park Mulga Purposes Unit, Australian Capital Territory, National Capital Authority, Territory and Municipal Services
ARCHITECT Towns + Micky Pinkerton
PROJECT TEAM Micky Pinkerton, Edward Mottam, Francesco Marchetti, Andrew Southall, Andrew Brown, Bruce and Catherine Townsend
STRUCTURAL ENGINEERS W+R Consulting Engineers
CONSULTING ENGINEERS: BRUER AU Grey & Associates (ACT), TOWNSEND + MICKY PINKERTON, DICKSON ENGINEERING, CLADDING CONTRACTOR: STO
LANDSCAPE ARCHITECT: Blue Design Group

Principal steel components: Prefabricated H140 x 140 x 10 steel beams from BHP Steel 100 x 100 x 6 profile, 4 mm thick, 100 x 100 x 6 profile beams with fully welded connections, 80 x 80 x 6 profile, 100 x 100 x 6 profile beams with fully welded connections, 80 x 80 x 6 profile, 100 x 100 x 6 profile beams with fully welded connections

 Prefabricated H140 x 140 x 10 steel beams from BHP Steel 100 x 100 x 6 profile, 4 mm thick, 100 x 100 x 6 profile beams with fully welded connections, 80 x 80 x 6 profile, 100 x 100 x 6 profile beams with fully welded connections, 80 x 80 x 6 profile, 100 x 100 x 6 profile beams with fully welded connections.