TANDEM DESIGN STUDIO
TRUE NORTH
IREDALE PEDERSON HOOK
FALCON HOUSE

IN PROFILE:
WINY MAAS
applaud the COLORBOND® Award for Steel
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continue our endorsement of the Institute's
architectural excellence. This is our 32nd year
Welcome to
127.
Steel Profile
EDITORIAL
in the form of COLORBOND® steel Matt –
brightly amongst a worthy field of contenders.
Architectus in joint venture – shone particularly
of Melbourne by ARM Architecture and
dark, in depth-of-colour. COLORBOND® steel
designed to diffuse light reflection for an
exemplify inspirational and innovative design.
To discuss COLORBOND® steel Matt or
to adapt to any design.
Finally, BlueScope makes Steel Profile free to the industry so, if you're not subscribed, simply send your contact details and professional credentials to steeldirect@bluescopesteel.com.au
Tanya Tankoska
Bluescope editor
FRANK STANISIC
DK3 Architecture founder Frank Stanisic is a
Sydney-based architect and urbanist.
He works is bullied by an existing structure in the
and frames a body for architectural
and the aesthetics of permeability.
Frank’s projects have won numerous awards including
Australian Institute of Architects’ Special Jury
Medals, AIA Tracking, Harry Seidler and Professionalprize

PENNY FULDER
Penny in a partner at Silvester Fuller, established in 2008. Silvester Fuller’s first built projects have been conceived for their creativity and design
sensibility. Penny’s work draws on experience gained across a broad range of international projects. She is a previous recipient of the Australian Institute
of Architects Emerging Architect Prize.

MATTHEW HYLAND
Matthew Hyland works with Woods Bagot. He
obtained a Master of Architecture from
the University of Tasmania and was awarded
the 2015 BlueScope Glenn Murcutt Student Prize.
Having a preoccupation with enriching the
education, Matthew is continuing to develop and
refine design processes through observation,
research and experimentation.

TRIDENTIUS SIMPSON
Tridentius’ simplicity of form for a music centre made
from ZINCALUME® steel delivers an elegantly understated and
exquisitely detailed expression

Dutch architect Winy Maas’ favours using steel
to increase the transparency and porosity of buildings while
minimising structure – all with the goal of improving cities’
liveability on a global scale

This ski field building sports
from COLORBOND® steel and a
create its cantilevered triangular

COLOURBOND® steel contributed
A curvilinear shell made from
COLORBOND® steel Matt –
featuring new paint technology which is
designed to diffuse light reflection for an
elegantly soft, textured finish. Now available in
five colours ranging from light to rundown to
black, in depth-of-colour. COLORBOND® steel
Matt provides architects with the flexibility to
adapt to any design.
To discuss COLORBOND® steel Matt or
any of our building products, please visit
BlueScope.com or call 1800 084 384 and ask for our Specification Account
Manager in your state, to help bring your design
inspirations to life.

This country horse stables designed by
Cassy Brown Architects sits beautifully in the
rugged Snowy Mountains of the New South
Wales landscape

This article identified the steel
classification as COLORBOND® steel,
which was specified for the project.
Following publication of that issue, BlueScope and others involved in the project
became aware that a non-
COLORBOND® steel product
was used for cladding.
We apologize for this error

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An elegantly tailored shell made from broad-ribbed, pearlescent COLORBOND® Metallic steel produces a stellar result in downtown, inner-urban Melbourne.

Words Peter Hyatt
Photography John Gollings; Paul Bradshaw; Peter Hyatt
The prototype house demands a restless curiosity, and a certain alignment of the stars, to ensure occupants remain dry and comfortable. Inspiration is one thing, practicality and function, another. The search for an original response can emerge in many ways, but for Melbourne architect Tim Hill of Tandem design studio, his own house largely came about by association or metaphor.

While designing in Melbourne’s inner-urban Kensington, Hill found himself reflecting upon the beauty and function of coral bommies — column-like structures that support the complex array of marine organisms and fish within coral reefs and outcrops. Describing his work as inspired by the “visual metaphor”, Hill saw parallels in a house that transcended the typical two-dimensional front and back, to become a permeable, vibrant series of possibilities.

Hill says he prefers architecture to have a certain life of its own that allows others to make their individual associations. “I was most interested in the idea of the ‘slippery metaphor’ that allows everybody to bring their own reading; where people would say: ‘Oh, it reminds me of something I haven’t thought of’,” he says. “I like it when others form their own relationship and find their own meaning in a shape, but it has to engage people in a friendly way,” he adds. “There are plenty of examples of corporate architecture that try to intimidate or impress. Good domestic architecture has to be warm, inviting and stimulating. It should be a very positive and uplifting experience.”

“I like it when others form their own relationship and find their own meaning in a shape, but it has to engage people in a friendly way”

The once working-class suburb of Kensington is now gentrified, with upstarts frequently appearing as space-hungry behemoths. Hill’s house on the other hand is all about available square millimetres. The site would have deterred many architects and clients – or simply driven them crazy. And yet for all of its oddities, the architecture elicits a satisfying cohesion. Hill’s work is known for its jelly-mould form thanks to his organic gestures, but his designs are neither arbitrary nor whimsical. Its curvilinear form isn’t meant to directly reflect the ocean, but to respond to a testing, tapered, triangular site that could easily have shoe-horned a far more geometric, restrained and unyielding result.

With an envelope as light-catcher and shadow-play, the surface of the house is animated by its wrap-around deletion. Roofing is made from COLORBOND® steel in Stramit Speed Deck Ultra® profile, in the colour Ironstone®, delineating the planes and providing a colour contrast. Exhaust vents made from weathering steel form part of the expressed vocabulary to naturally vent the house.

Exhaust vents made from weathering steel form part of the expressed vocabulary to naturally vent the house.
Despite the physical constraints and frugal means, fearlessness, inventiveness and common-sense all intersect on this project. It’s not a house where sheer volume or space was the goal, but rather it provides a variety of options: a house for all seasons, where every room has its own separate and important identity, Hill says. “It’s an object in the round, and part of that is because it’s on an exposed corner and yet it sits back into its block. You can actually see all three sides and that’s unusual because most inner city houses are concealed behind walls.”

The house draws on an industrial vernacular but introduces an organic, quite soft, almost feminine hand. “It’s not a brutal thing. I think the house is really pretty,” says the architect, “I mean that adjective quite a lot to describe the result,” Hill says. “I think it’s to do with the scale of the pleats and the colour. My previous house was kind of masculine, but this one is quite pretty. I think it’s to do with the scale and the amount of detail.”

The house’s walls are entirely clad in cladding made from COLORBOND® Metallic steel in a custom-made profile, in the colour Galactic™. Hill says the metallic colour Galactic™ was chosen for its pearlescent finish that exudes with endless subtlety to prevailing conditions and light. Roofing, meanwhile, is made from COLORBOND® steel in Stramit Speed Deck Ultra® profile, in the colour Ironstone®, delineating the planes and providing a colour contrast.

The steel cladding was customised into a triangular profile that Tandem designed and had steel fabricators Design Sheet Metal (DSM) roll-form into shape. The resulting profile was designed to achieve the precise visual ratio of ribs to flat surface. “We went through a whole prototyping process to get the optimum pleat size with three or four prototypes,” Hill says. “We eventually settled on a 125x125mm equilateral triangle. It was amazing that even a minor variation in size either direction – up to 150mm or down to 100mm – changed the building’s whole appearance.”

“DSM picked up on the idea of the slippery metaphors I was presenting,” he continues. “They took me to a pleating factory once I’d started to talk about the pleat. As the steel fabricators, they were interested in participating in how the cladding could be most efficiently folded and expressed, and evolving something really special.”

“We eventually settled on a 125x125mm equilateral triangle. It was amazing that even a minor variation in size either direction – up to 150mm or down to 100mm – changed the building’s whole appearance.”

“Windows as weathering steel ‘boxes’ contrast architect Tim Hill’s flowing skin finish made from COLORBOND® Metallic steel in a custom-made profile, in the colour Galactic™

Ribbed also punctuated with upper level shaded glazing and origami-inspired cut metal for ground-floor windows

Windows as weathering steel ‘boxes’ contrast architect Tim Hill’s flowing skin finish made from COLORBOND® Metallic steel in a custom-made profile, in the colour Galactic™

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PH PB

PB

GROUND FLOOR PLAN

PANEL SAYS

As a counterpoint to its neighbours – which include traditional timber and masonry homes with pitched roofs – this curvaceous flat-roofed house showcases the capacity of steel to be both practical and playful. It also serves the architect-owner’s aspiration to make efficient use of this odd-shaped site, thanks to its ability to cloak unusual geometries with ease. Conceived as an object in the round, the house is clad entirely in custom-profiled COLORBOND® Metallic steel in the colour Galactic™. The wide ribs accentuate the design’s careful manipulation of proportion and scale, and enliven the play of light and shadow across the material’s surface. With its projecting window hoods made from weathering steel, and internal timber linings that echo the dimensions of the exterior steel cladding, the design achieves a neat symbiosis between external and internal worlds, and provides a joyous addition to the streetscape.

The curving form is visually dynamic, appearing to be always in motion. Cladding pleats are punctuated by window hoods made from weathering steel

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During the course of each project, Hill investigates other associations and uses those thoughts to push the design forward. “Here, the facade pleats for example, were literally a connection back to a simple way of wrapping the building up without creating too many construction problems. Once I decided that, they started to revolve me of fabric, and then I was interested in capturing some sort of sense of movement or some sort of restlessness with the form.”

The zig-zaging, pleated facade creates a continuous, curving edge which is pinned together over the front door. The curving form is visually dynamic, appearing to be always in motion. The pleats are punctuated by window hoods made from weathering steel that frame views across the neighbourhood from the upper-level bedrooms.

Once I made the decision to round the corners, I was quite fearful about creating too much complexity,” he says. “I decided to extrude the plan shape up, but subtract volumes from the interior. While there are some nodal sectional qualities, it’s primarily about the plan as a response to site and orientation.”

The building is placed in the centre of the block, so the facade undulates and bends to create north-facing pocket gardens, a rear produce garden, and to allow light to enter neighbouring rear yards. The new dwelling is a high-performance solar passive house with living on the ground floor and sleeping above. The open corner block is wide enough to accommodate two rooms and a corridor on the western boundary, narrowing to a single room towards the east.

Hill says the house’s energy efficiency is “Largely about the fundamentals of aspect and volume. That was something of a surprise to me because we’re often working with those long and alining inner city houses where you struggle with energy ratings because of such large surface area to volume. Ours was terrific to begin with,” Hill says.

“The other remarkable benefit of the pleated profile is its stiffness,” he adds. “My previous house was a pole-and-frame structure made of timber that used to wobble. This one is just really rock-solid rigid. Other subtle qualities emerged almost coincidentally as the concomitance of this shape and particular ribbed profile that forms an ever-changing display of striations across the surface with sun movement.”

Now that it’s finished, Hill says he frequently hears the comment: “Oh, you must have had a preconceived idea for the house, and so you finally got the opportunity to build it.” Actually, it was the opposite,” he asserts. “The site created the constraints which produced the building, so it’s very much the other way around rather than the popular understanding of how these things are designed.”

While he found the process of being both architect and client a challenging one, he says it was hugely rewarding. “It’s really an opportunity to do something on your own, to make and back your own judgments. There are going to be risks, but you have to negotiate those risks in a way that makes them acceptable rather than frightening. Failing a site, having some freedom to perform your own work, reaching the end and then living in it is just really satisfying.”

Rather than the idealised, glamour-model view of architecture, Hill’s work strives as a lighthouse. It reminds us that architecture can be a way of life, rather than the standalone, remote object. Lightweight in feel and appearance, a curvilinear steel shell made from COLORBOND® Metallic steel contributes structure, rhythm and spatial delight. While the sum of many parts, it’s this pleated shell that brings haute-couture to this inner ‘burb.

“Here, the facade pleats for example, were literally a connection back to a simple way of wrapping the building up without creating too many construction problems”
Tridente Architects applied its characteristic fine attention to detailing to realise the understated yet highly refined new Cardijn College Music Centre in Adelaide’s outer southern suburbs.

Words Leanne Amodeo  Photography Paul Bradshaw; Simon Cecere
The facility’s entry is open with cladding made from ZINCALUME® steel in Revolution Roofing Rev-Span™ 700 profile, chosen for its economy and unassuming quality.

“The advantage of this product is that it comes to life with slick detailing, so we spent a lot of time on the corners and flashing.”

“Despite the compactness of this product, it comes with slick detailing, so we spent a lot of time on the corners and flashing.”

Parents can take in the full view of the Music Centre and gym when they drop off and pick up their children.
As cladding on the west, east and north elevations, the ZINCALUME® steel lends the building a crispness that’s evident when viewed from the school’s yellow sign on the gym’s exterior. As a finish on the shelving that wraps the facility’s entry access, this tile feature is actually fixed to a secondary sub-frame that’s in turn fixed to structural steel. There are fine strips of light between the joints, adding yet another level of detail to the exterior.

Tridente extended the colour narrative inside, too, where yellow accents inject a playful flourish against the white of the interior walls. Another innovative component of the building is its glazed south wall which lets the outside in, making for a relaxed, casual atmosphere and offering a connection to the rolling hills beyond. Parents can also be assured their instruments are securely closed when driving in or out of the school that students are receiving their music tuition, as the small south-side tutorial rooms are in full view.

The architects eschewed all ostentatious gesture to deliver an understated outcome that’s as exacting as the project, Tridente is characteristically humble. “The design’s all about materiality and how you can achieve a sophisticated outcome with products that are honest and simple,” he says. “The main objective was to make a subtle statement at the entrance and so was carried over to the Music Centre’s entry signage, too. It’s also applied prominently as a finish on the shelving that wraps the facility’s entry access. This tile feature is actually fixed to a secondary sub-frame that’s in turn fixed to structural steel. There are fine strips of light between the joints, adding yet another level of detail to the exterior.

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The Dutch are famous for reclaiming marshlands and cultivating landscape to support human habitation. Winy Maas, co-founder of MVRDV, aims to harness that capacity and upscale prototypical solutions to tackle global design challenges.

WORDS
Rachael Bernstone

Portrait by Peter Bennetts

PROFILE

Winy Maas has been a design practitioner for more than 30 years, but his energy and drive resemble those of a 20-something student. From a young age, he seemed destined to work in landscape in one form or another, but no-one could have predicted that instead of tending flowers or growing plants, Maas would tackle issues on a global scale, from a broad-based design perspective.

“My mother is a florist, my father is a gardener, so I was expected to take over the gardening business – my brother took over the floral business – but somehow I refused that,” he laughs. “I started with landscape architecture and went on with architecture and urbanism, because I thought that combination would be more fruitful and effective, in terms of realizing heavier elements with lighter elements.”

Maas co-founded MVRDV in Rotterdam in 1993 with fellow architects Jacob van Rijs and Nathalie de Vries. In 2000, he visited Sydney when the firm undertook joint investigative project with the New South Wales Government Architect’s Office, resulting in the publication ‘Port Cities: Rotterdam Sydney’.

He visited Sydney again to speak at the 2017 Australian Institute of Architects National Conference, Praxis, presenting a selection of recent MVRDV work through a lens that ranged from XXL (including the speculative Sydney project from 2000, which proposed bridges made of shipping containers to link various islands in the harbour) right down to XXS (the Glass Farm, a small museum in his home town of Schijndel).

Speaking with Steel Profile before the conference, Maas suggested that MVRDV’s projects – which can be found from The Netherlands to South Korea, and which range from private houses to master-planned new cities – share a common “biodiversity”.

“They are linked together, there is an ecology to the projects,” Maas explains. “To define it another way: they are all obsessed by directness and by communication; they are all obsessed by prototypical solutions for a grander scale and to answer somehow to a wider context. And last but not least, they are scaleless: they range from XXL to XXS, perhaps extending further than we thought about even 10 years ago.”

MVRDV is firmly focussed on problem-solving for a sustainable future and Maas says that the firm’s approach has antecedents in history, particularly in the work of the 17th century Frenchman dubbed the ‘father of landscape architecture’. “After [André] Le Nôtre, I think that Dutch landscape architects always did a lot to improve the make-ability of our country, so for us, design for the grander scale is in our blood.”

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ABOVE: Located in the centre of Rotterdam, the Markthal is a unique hybrid that combines retail, public and residential uses in one iconic form. The careful balance of mass-to-macro-scale — and everything in between — helped to mitigate some of the common fears faced by communities around the world, Maas says. These include concerns about the negative effects of increasing populations on housing, transport and existing amenities in cities; the resulting global strain on resources; and the loss of natural habitats.

“We are fascinated by density; it’s one of the key drivers for saving the planet,” Maas explains. “We want to work out how to make the kinds of environments that you would like to live in.”

Several recent MVRDV projects have explored the qualities of transparency and porosity, which Maas claims are essential elements in livable cities of the future. “Transparency (in design) is a way of going to a wider perspective,” he explains. “So we like to link interiors more with exteriors which makes it possible to make our cities more open; to combine density with openness. It’s one of our tools to make cities more survivable with greater density.”

A ground-breaking example of MVRDV’s exploration of the notion of transparency can be seen in the DNB House project in Oslo. On a waterfront site, the firm designed a staggered, pinioned office tower — using 1,600 tonnes of steel in the form of 60-metre steel-framed cubes — that makes a bold statement about the bank it houses.

“After the Global Financial Crisis of 2008, there was a general distrust in the banking industry, and DNB wanted to create a system that would allow it to be more transparent, and to build up its internal control,” Maas says. “They wanted to avoid the risks internally that led to the GFC, so we developed a ‘cockpit’ system, whereby each pixel is occupied by two people, who don’t know each other.

“Each pixel has windows on two sides, and they are connected in different ways,” Maas adds. “We kicked out some by using glass pillars internally to create two vertical streets that ran in opposite directions around the building. The use of structural steel to construct the pixels was essential for two main reasons, Maas says. “One is that the Norwegians are extremely good with steel — we used an oil-platform builder to build this office building — and the second is that it made the process very flexible. During construction we could easily shift and rearrange the pixels, which, given the financial constraints and the speed of construction, was very useful.”

Concentrating more than 30 facilities into one site, DNB House accommodates 2,000 flexible work spaces over 17 levels, with a panoramic terrace on the top level, and a trading room for 250 people. All of these features are connected by the two vertical streets that meander upwards from reception via a series of stairs and bridges. "That's where we hope to fill in the gap," he continues. "It's not a completely Dutch approach though. In 2011, there were now other countries or groups dealing with those same issues of scale. China has completely artificial citiescape, as do other Asian cities such as Seoul in Korea. They are combining small and big to understand what they can do, looking at the two scales.

Communal areas located off the streets boast a domestic feel with pantries, informal reading areas, reading rooms, lobbies and even fireplaces.

“Markthal project in Rotterdam, a unique hybrid that combines retail, public and residential uses in one iconic form.

“The steel joints are very important, especially in the middle part, which has to be post-tensioned every five years.”

In bringing its unusual blend of Dutch heritage and futuristic focus to London, the Mandarin offers transparency and porosity that is characteristic of MVRDV’s approach. This can be seen in the project’s design for the Mandarin Oriental hotel in Knightsbridge, its 26 vertical and 22 horizontal cables that are pre-stressed between strong steel beams embedded and cast into the building’s walls. A single detail: a cast steel node — manages the interaction of the cables and holds each pane of glass in place.

“Some type of glass facade was first done on a smaller scale, but the more in terms of the sheer size,” Maas says. “The glazed wall carves round a 15 metres in the wind, and the glazing is secured around a 15 menses, so the steel joints are very important, especially in the middle part which has to be post-tensioned every five years.”

With its striking visual appearance — both inside and out — the Mandarin presents a prototypical for sustainable mixed-use development: one where food retailing, all-day hospitality and residences co-exist harmoniously. It’s the sort of blissful design thinking that is required to tackle some of the most challenging problems of the modern era, globally. Even though MVRDV has participated in several design competitions for projects located in Sydney over the past 15 years, it has so far been unsuccessful in bringing its unusual blend of Dutch heritage and forward-looking focus to Australia. But as new markets open up with population growth over coming decades, MVRDV’s approach — which places equal emphasis on landscape, architecture and urbanism to increase densities — may find more favour with planners and developers, especially if Australian communities begin to demand better aesthetics and improved connections to nature as a trade-off for such density increases. SP
Deftly responding to a host of contextual challenges, this ski field base building made of steel combines utility, durability and aesthetics into a dramatic and functional launch-pad from which visitors can enjoy the snow.

Words Lorenzo Logi  Photography Esther Small; Kyle Mulinder
Wyatt’s design capitalises on the strength of the required materiality to incorporate dramatic planes and support structures, marrying engineering prowess with visual interest.

“There are large numbers of people in short times because they all arrive in the window of two to three hours. You might be dealing with 3000 customers,” he explains. “The primary purpose of the building was to offer a good experience for the clients and to avoid the frustration of waiting too long for something, or not being able to find something easily.”

The resulting design is a balance between clean, essential lines that reflect and respond to the surrounding context; robust structure and materiality essential lines that reflect and respond to the surrounding context; robust structure and materiality and service staff, discrete from guest areas. Wyat’s design capitalises on the strength of the required materiality to incorporate dramatic planes and support structures, marrying engineering prowess with visual interest. This is achieved primarily via running long spans of Kingspan® Trapezoidal insulated panels for roofing and cladding made from COLORBOND® steel in the colour Monument®. The roof is pitched at an angle of only five degrees, rising gently to where it meets a diagonal steel support column custom-welded by steel fabricators Action Engineering to form a cantilevered opaque point shaped in glazed glass: the dramatic (and geometric) apex of the structure. This shallow gradient also served the purpose of allowing snow to gently melt and drain from the roof, rather than “suddenly losing its grip and coming off in one big whoosh,” Wyatt says, which could be a safety issue.

The building is split over three levels, with back-of-house at the bottom, the formal entrance, guest services, administration offices and ski/board equipment hire in the middle level, and hospitality amenities at the top, which also opens onto the ski field. A drop off and pick up carpark is level with the entrance to The Remarkables ski field. Wyatt says, which could be a safety issue.

“The idea is that you come in at the entrance level and you hire your ski’s and get fitted up, then you come up a stair and burst out onto the field ready to ski. You ski around the hill and then you may feel like a coffee and a pie so you come in at the top level, all from your ski lift,” Wyatt says. The arrangement allows a smooth progression for visitors to access the services they need in a predictable sequence, while also keeping the ground floor goods delivery and rubbish pick-up area, with its traffic of trucks and service staff, discrete from guest areas.

Wyatt’s design capitalises on the strength of the required materiality to incorporate dramatic planes and support structures, marrying engineering prowess with visual interest.
The balance of strength, span, delicacy and thermal resilience requisite for the design made choosing the Kingspan® Trapezoidal insulated panels made from COLORBOND® steel in the colour Monument® easy.

Complementing the subtle play of geometries introduced by the mono-pitch roof, the diagonal steel columns add considerably to the drama of the structure. Wyatt reflects. “I realised that by understudying the play on the triangle the building would have a purposeful drift that would balance the long, gentle roof slope. The columns support the lead down below more easily, and it was given a more poised look, painting forward like the nose of a shark. “There were arguments against [the decision to make the columns diagonal],” Wyatt continues, “with a bit of resistance from the engineer, but I managed to get it across the line, and that’s really what gives it the edge.”

The ensemble of the building’s stalwart materiality, brooding colours and crisp angularity resonates with the silhouettes of The Remarkables’ peaks and the surrounding mountain ranges, evoking the chiselled granite outcrops that punctuate the snow fields, and offering a curiously organic interpretation of what is unmistakably a human-made form.

Internally, spaces are generous, with “Plenty of space for people to mill around while they sort themselves out”. Wyatt has been cautious to break the volume into sub-zones of a more human scale, particularly by placing the kitchen in the centre of the upper-level plan. A fireplace set amongst timber finishes also interrupts the ‘cool’ materials of the building, a small yet definite allusion to cozy alpine hearths.

Wyatt says the balance of strength, span, delicacy and thermal resilience requisite for the design made choosing the Kingspan® Trapezoidal insulated panels made from COLORBOND® steel in the colour Monument® easy. “It made a lot of sense to make it out of structural steel panels because it meant that the wall system could be braced, and all of the support with the glazing on top could be attached to that steel grid in a fairly logical and simple way, because it did have to cope with very high wind,” Wyatt explains. “At the time, we designed for a wind load of something like 250 kilometres per hour.”

Another climatic factor that informed the choice of materials was that the Kingspan® Trapezoidal insulated panels deliver an R Value of R5.35, providing the correct level of thermal and structural performance required in this outcome environment. And before the elements placed on the completed building even came into play, constructing with steel allowed individual parts to be pre-made off-site, trucked in and assembled rapidly. This resulted in the building being completed a month ahead of schedule – especially impressive given the nine-month building window (between ski seasons), challenges of building in such cold temperatures and frustrations associated with not being able to build in bad weather at all.

The building has received wide praise, including an award from the New Zealand Institute of Architects’ Southern branch in the Commercial category. That jury described it as “A dramatic and elegant wing to the mountains”. It also collected the Supreme Award at the New Zealand Commercial Project Awards, where judges described it as “a project like no other”. Wyatt is also happy that the building even came into play, constructing with steel – all of which are unlikely to even be noticed – and safety with which they navigate the structure – all of which are unlikely to even be noticed – are just as central to the project’s success.

Project: The New Remarkables Base Amenities Building
Client: NZSki
Architect: Michael Wyatt Architecture
Location: Queenstown, New Zealand
Structural & Civil Engineer: Arrow International
Steel Fabricator: Action Engineering
Cladding Contractor: Archer Construction
Principal Steel Components: Kingspan® Trapezoidal insulated panels for roofing and cladding made from COLORBOND® steel in the colour Monument®
Building Size: 4470m²

AWARDS
Commercial award from the New Zealand Institute of Architects’ Southern branch, Supreme Award at the New Zealand Commercial Project Awards

Nigel Reece | PHOTOGRAPHY

LEFT: Generous volumes and floor-to-ceiling fenestration afford both comfort and prospect, with seating at the ‘shark’s nose’ tip of the fenestration afford both comfort and prospect, building offering an immersive alpine panorama.

TOP: The topmost level opens directly onto the ski-field, providing comfort and amenity.

ABOVE: Layered materiality and bright, warm colours interrupt structural/finish internally, animating and softening hospitality areas.
This country home including horse stables – designed by Casey Brown Architects – sits beautifully in the rugged Snowy Mountains of the New South Wales landscape.

Words Alex Taylor Photography Rhys Holland

ARCHITECT Casey Brown Architecture

PROJECT Crackenback Stables

LOCATION Crackenback, New South Wales
Win awards, and it won five—including the Australian and he obviously thought I could come up with an appreciation of each-others' skills: I admire interesting commission. “I think we both started of the country’s most exacting builders was an
what started out as a modest farm shed for one Fielding over the years, the chance to design
be principally steel.” Brown explains. “It was an obvious solution: Architecture. “It came from our understanding too, says architect Rob Brown of Casey Brown
There were other reasons for choosing steel
homes for Richard Johnson, Peter Stutchbury,
managing director of Bellevarde Constructions,
"Crackenback Stables is a veritable exploration of the possibilities of steel itself, both as a material of structure and one of immense architectural beauty"
Closer inspection reveals that most of the custom-designed and hand-crafted details are made from steel, from the building’s portal and the base to the concealed clothesline, and the steel ladder frames that help to achieve the large undercroft openings. As the owner and builder of this project, Fielding says it was exciting to have a new and a different: it protects you from the elements as you are arriving and unpacking, and then it’s easy to close the doors and get on with your business. Above: Rob Brown says the mild steel of the entry portal “Defines that space and the way it functions in its setting, and its contribution to our understanding of how people and the environment can inhabit such wild locations.” For Rob Brown, the most satisfying aspect of the building is “That it sits beautifully in its rugged landscape.”

“We had the rolled corrugated exterior steel cladding cut-on-site, however putting it together perfectly took some time and a good amount of skill,” he says. “Our engineer, Ken Murtagh, deserves a mention here. He and Steve found ways to do things even I thought might be impossible. I’m still impressed with the workmanship and the way they concealed the downpipes in the subtle curves at each end of the building.”

These ‘secret’ gutters and downpipes were hidden within the curving roofline for both functional and aesthetic reasons, Brown says. “They allow us to get rainwater off the building using the corrugations that follow the pitch of the roof, to be collected and stored in a tank below, and then also reduce the risk of ember attack,” he says. “From an aesthetic point of view, they allow us to create a very fine edge to the sky.”

There are many more unique steel details throughout the project too. Fielding says, “Steve created some special hinges to hang the heavy steel sheets in the covered entrance area that, with the patina, have almost completely integrated into the form.” He says, “It’s beautiful and ingenious. As a builder, that’s the kind of thing I love.”

“For Rob Brown, the most satisfying aspect of the building is the way it functions in its setting, and its contribution to our understanding of how people and the environment can inhabit such wild locations.”

“This project enabled them to incorporate hand-crafted details that are more than is usually possible, he says. “Steve created some special hinges to hang the heavy steel sheets in the covered entrance area that, with the patina, have almost completely integrated into the form.” He says, “It’s beautiful and ingenious. As a builder, that’s the kind of thing I love.”

“The client and builder couldn’t be more pleased with the finished product – an exploration of the capacity of steel to create something uniquely Australian. Fielding says that he and his wife are at their “most relaxed” when they visit Crackenback, and the horses seem to like it too. “It turned out better than I thought any of us expected and it’s a credit to everyone involved,” he says. “It’s also managed to win a few awards: not bad for a steel shed.”

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“Steve created some special hinges to hang the heavy steel sheets in the covered entrance area that, with the patina, have almost completely integrated into the form.”
Inspired by the humble beach shacks of old, this new house opposite the Indian Ocean is the latest member of Iredale Pedersen Hook’s family of elevated and elegantly steel-wrapped houses.

Words: Rachael Bernstone  Photography: Dion Robeson
The beach and the beach house are etched into our Australian national identity, although the experience of visiting the coast has evolved over the past few decades. Whereas people once used to build and inhabit humble shacks made from inexpensive materials, many of these are now being torn down and replaced by larger and sometimes more ostentatious homes, less like weekenders and more like permanent dwellings.

This home opposite Falcon Beach, 70km south of Perth, wrapped in cladding made from COLORBOND® Ultra steel flies in the face of current trends in coastal housing and harks back to a bygone era.

"From the beach, the house appears to be sitting within its landscape, but from the street, thanks to its long legs, it appears to float gently above it"
Iredale refers to this latest offering as ‘Daddy Longer Legs’: it hovers above its sand dune site to take advantage of views across the Indian Ocean, thereby preserving the sensitive ground plane beneath.

“The house is small by contemporary house standards [at 210m² internally] and the idea was to hover it above the landscape,” Iredale says. “From the floor up, everything is white – COLORBOND® Ultra steel in the colour Surfmist® – and below that everything is ‘black’ – including COLORBOND® Ultra steel in the colour Monument® and brick walls and pylons – which helps to turn the world underneath the house into an adventure zone for the client’s grandchildren.” Even the handrails reflect the monochrome palette, changing from black to grey to white, as they ascend the stairs.

This is not a lightweight construction, despite the appearance of its skin made from COLORBOND® Ultra steel, Iredale says. “It’s braced on a combination of angled circular hollow section columns – which create a wider opening for the driveway – and brick piers that refer to the local shacks of yesteryear,” he explains. “We used a concrete slab, and from the floor up there is a timber frame with steel columns that act as posts at certain points. We added layers of insulation before wrapping up virtually the whole building with an exterior made from COLORBOND® Ultra steel.

The form of the house was conceived as a cube. Eroded on one side to form an L-shape, the cutout is orientated to maximise the atypical orientation.

“You get these unusual aspects at Mandurah where the coast flicks around to allow you to look towards the north-west,” Iredale says. “It means you don’t have the issue of full-blasting sunlight at sunset when you take in the view.”

The steel carapace is made from COLORBOND® Ultra steel in the colours Surfmist® and Monument®, with the roofing and sealing in LYSAGHT CUSTOM ORB® profile. The building’s front is trimmed with two sides of polycarbonate – one serves as a balcony, the other a ‘sun-visor’ – that offer the occupants privacy and shelter from wind, afternoon sun and blasting rains.

“At night time, from the street, the whole thing glows like a lantern,” Iredale says. “On the deck, you have the impression that the surroundings have disappeared and you are enveloped by the vessel of the house. The double layers of the polycarbonate perform like a delicate Japanese shoji screen, and the geometry is all about an intense dialogue with the horizon.”

This is a carefully considered detail is the tapered edges of the polycarbonate, which – like the lid of a chocolate box – subtly peel back to reveal the COLORBOND® Ultra steel within. “That sense of tension and interruption forces you to measure the horizon, so the architecture actually starts to moderate your perception of the horizon,” Iredale says. “And there is a subtle juxtaposition of the Surfmist® colour where it meets the vertical orientation of the polycarbonate at the edge of verandah, that further plays on that exploration of horizontal and vertical elements.

The exterior sheeting made from COLORBOND® Ultra steel in LYSAGHT CUSTOM ORB® profile was laid horizontally to reinforce the connection with the distant link between earth and sky, Iredale says. “We used a timber trim along the edges of the horizontal profile to detail up along the cuts. We wanted to detail this project for longevity: that system of horizontal profile trimmed in timber is designed to create a weather-proof system that wouldn’t trap salt and sand.”

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From the ground level, the house is accessed via a front ‘ceremonial’ stair and a second stair at the rear that ascends to a small deck that can be secured with a roller door. An internal stairwell at the top of the front stair has the capacity to be reconfigured as a foyer in future should the owners decide to install a lift that can be attached to the outside of the rear elevation, if they opt to move permanently to the coast after retirement. “This is a building that will get better in time, on that front elevation,” Iredale says.

Inside, a cruciform plan boasts windows at either end of the NE-SW axis to facilitate cross-ventilation, in concert with the openings on the front and rear elevations. The master bedroom and ensuite bathroom both offer views of the ocean, as do two more bedrooms, which is a bunk-room overlooks the back yard. The simple interior living space—combined kitchen, dining and sitting area—overlooks the front of the house. Its generous size means that it can be occupied by distinct groups of people—adults and children, for example—and in different ways, at various times of day.

“All of the living spaces connect to the outdoor deck which is big, because we believe that once you’ve elevated people, you want to give them lots of space to enjoy and connect back to the view,” Iredale says.

We assert that the material selection and overall size of the house were kept deliberately low-key on this project. “Everything is pretty minimal— the clients didn’t want to go down there to hierarchize. There’s an outdoor shelter to wash the salt and sand off, and a triple garage to store all the water sports paraphernalia,” he says. “Inside, the design is neutral to exaggerate as much as possible the connection to the ocean and changing colour of the coast. Being outside on the deck is fundamental to that experience.”

In one concession to the site’s incredible location, the polycarbonate balcony outside the main living space owing down to give a direct view across to the ocean. “The sand dune in front drops down and so it looks like the house sits on top of it,” Iredale says. The main metal feature was carved out by a local surfing pioneer—Ray Geary—after whom the nearby surf-break is named—who, as a young man, repeatedly drove his car over the dunes to access the waves.

“From the beach, the house appears to be sitting within its landscape, but from the street, thanks to its long legs, it appears to float partly above it,” Iredale says.

With its smart and sophisticated colour palettes, bold geometry and crisp detailing, this new house is a far cry from the few remaining beach shacks that dot the nearby dunes. But, in its modesty and lack of pretension, it stands as a fitting monument to its long legs, and its undercroft sits like a building made from COLORBOND® Ultra steel—modestly and unobtrusively opening up the view in the process. “We believe that once you’ve elevated people, you want to give them lots of space to enjoy and connect back to the view,” Iredale says.

Above: The 80m² front deck comes into its own at night, when the house glows like a lantern from the street and beach.
DREAM WEAVER

With a finish that blends straight into the red, rocky surrounding landscape, this civic shelter crafted almost entirely from BlueScope XLERPLATE® steel evokes pointy echidna quills and knitting needles, however provides most-welcome comfort in the heat.

Words Glenn Morrison Photography Andrew Broffman

The Rim Walk of Kings Canyon in the Red Centre's Watarrka National Park is perhaps the most spectacular experience in Australia's vast inland. Located between Alice Springs and Uluru-Kata Tjuta National Park, Kings Canyon is also a place where two systems of knowledge intersect those of northern Australian and Indigenous Australian cultures.

The park is jointly managed by the Northern Territory Parks and Wildlife Commission and its traditional owners, after 1952 squarikibaritula of land within the park was handed over in 2012. Such cultural contact zones can forge productive creative spaces, where Western and traditional ideas may sometimes fuse.

Nowhere is this more evident than in the highly unique Watarrka Visitor Information Shelter, built between February and November 2016, and sited at the start of the Canyon's walking trails. Providing shelter and information for walkers, the structure reflects traditional and settler forms. Its post-and-beam construction echoing a spinifex-clad western desert wiltja as much as an A-framed lean-to more familiar to Western eyes.

Tangentyere Design architect Andrew Broffman started the design by researching local traditional forms of shelter. "The more research you do, the richer a project can be," he says. The fruits of his research were shared with Traditional Owners, in a consultation process that helped to shape the design, especially their image of visitors to the park as being like "little ants" scurrying across the landscape. "You often see the nests ants make," Broffman says. "Tangs and sticks, little mounds coming out of the ground: there was an implied structure."

Ants led Broffman to reimagine the quills of the ant-nest as "little ants" scampering across the landscape, especially their image of visitors to the park as being like "little ants" scurrying across the landscape. "You often see the nests ants make," Broffman says. "Tangs and sticks, little mounds coming out of the ground: there was an implied structure."

 brokerage/photography

The completed shelter welcomes up to 50 visitors at a time in larger groups and provides information about Watarrka's different walk options, hydration dispenser to promote it – and keeping a safe distance from cliffs. It's syncretic and inclusive. "Andrew did a great job on the design," Rilstone says.

The project wasn't without challenges according to production manager David Rilstone at Ross Engineering, who produced the 'spiky' using a brake press, and also the artificially weathered finish. "Andrew did a great job on the design," Rilstone says.

With a finish that blends straight into the red, rocky surrounding landscape, this civic shelter crafted almost entirely from BlueScope XLERPLATE® steel evokes pointy echidna quills and knitting needles, however provides most-welcome comfort in the heat.