Welcome to Steel Profile magazine.

There have been many changes since our last issue. We’ve reimagined the design, freshened up the layouts, and revised the graphics and fonts to bring you what we believe is one of the leading, inspirational and opinion-forming steel architecture magazines available in Australia today.

But perhaps one of the most important evolutionary steps Steel Profile has taken recently is the introduction of a panel of architectural experts who select the projects to feature in the magazine.

Professor Tom Heneghan (Chair of Architecture at Sydney University), Adam Hyett (Director of SJB Architects), and Daniel Griffin (Joint winner of the 2008 Australian Institute of Architects COLORBOND® steel Biennale Prize) have joined the newly-formed Editorial Advisory Panel.

Using their collective expertise, the panel – which also includes BlueScope Steel’s National Market Development Manager, Mark Sittornen, and Steel Profile’s new Associate Editor Rachael Barnstone – will handpick the most inspirational and innovative steel projects for publication in the magazine.

We’re not finished there, however – Steel Profile has also developed a new website: www.steelprofile.com.au.

Steel Profile magazine remains the flagship architectural publication of BlueScope Steel, but the online element is designed as an active and complementary addition to the printed magazine, making it even more accessible to the wider architectural community.

Architects and designers can now submit their projects for consideration as potential articles in the magazine at www.steelprofile.com.au. So if you have a project that features ground-breaking or innovative use of steel, please click on the ‘Submit your Project’ button and upload the details.

Looking further ahead, we will develop specific tie-ins between www.steelprofile.com.au and the printed magazine to enhance the active correlation between the two mediums.

As you can see, we’ve been busy of late, and we’re sure the changes mean that Steel Profile will remain a collectable point of reference. We hope you enjoy the issue.

Steel Profile
The stakeholders involved in architectural projects can – and invariably do – make for a demanding group, but Albury city councillors knew what they wanted. And ARM delivered.
Aston Raggatt McDougall’s (ARM) Albury Library Museum received several accolades at this year’s Australian Institute of Architecture Awards (Victorian Chapter).

But unlike the award process, where projects are short-listed by jury members, the commission for the Albury Library Museum didn’t involve a competition. Instead, the Albury city councillors made their own shortlist by travelling to various locations around Australia to visit public buildings that resonated with them. These buildings included ARM’s cultural centre at Marion in South Australia, and the Southport Library in Queensland.

“The councillors thought the best process was to visit key libraries and museums and inspect the work that was out there,” says ARM director Ian McDougall, who was surprised to get a phone call to submit schemes, without having previously presented anything. “It was the direct feedback they were after, from the communities at large.”

The City of Albury had a masterplan for the designated site, connecting the central square with significant buildings in the precinct: the cathedral, post-office, courthouse, telegraph exchange and town hall, the last now operating as an art gallery.

“So we looked at several museums in Australia and overseas. We wanted to address the square, rather than turn our backs on it,” says McDougall, who was also mindful of the historical buildings nearby.

The architects also found inspiration in the region’s Mechanics Institutes, established in the early 20th century. “We wanted to capture the local stories as well as the terrain, the city’s river crossings, both road and railways,” says McDougall. “With the old railway system, each state had a different gauge, so passengers would have to change every time the boundaries were crossed.”

One of the first images to influence ARM’s proposal was a 19th century bridge over the Murray River. Featuring cast-iron columns and lattice, the crisscross pattern was developed into one of the library museum’s facades.

The original trains carrying goods interstate also played a part in the initial drawings, as images of old steel carriages remained in the minds of most locals. Whether displayed in the local museum or in a private photo album, these worn steel carriages are embedded in the psyche of the community. For the architects, the thought of not using steel would have undermined the design and sacrificed the importance of history in the delivery of this project.

“The Museum is essentially a linear building, like a series of carriages,” says McDougall. “We just couldn’t have achieved the same effect using another material.”

Three striking steel facades greet visitors approaching the building. Orientated to the northwest, these facades provide a civic quality to the corner of Swift and Kiewa Streets. Single-storey, this elevation is further anchored to the site by an over-scaled architectural steel innovation • STEEL PROFILE #101

www.steelprofile.com.au

ABOVE: The signage is an integral part of the building’s bold statement
RIGHT: The 256 Grade XLERPLATE® steel fascia and columns subtly reference Albury’s railway connections
FAR RIGHT: X marked the spot too much for some
“Influenced by local buildings and the streetscape; the banks, levees and trees of the landscape; and the coved cornices of a railway carriage, the design also references the steel railway bridge over the Murray River”

PANEL SAYS

Typical of ARM’s architecture, the Albury Library Museum draws inspiration from its surroundings to inform the design. The structure and skins celebrate context to create a sense of place, which is often neglected in regional projects.

Influenced by local buildings and the streetscape; the banks, levees and trees of the landscape; and the coved cornices of a railway carriage, the design also references the steel railway bridge over the Murray River. For these architects this is a more unambiguous gesture than their usual work, it’s very direct in what it tries to express. It’s an exhilarating structural form, only possible in steel.

www.steelprofile.com.au
Given the nearby historic steel railway bridge over the Murray River, there was no doubt steel would feature prominently in ARM's design.
Traverse through the latest Harley-Davidson motorcycle brochure and you rapidly gain an understanding of what this most American of brands is all about.

The names given to these throaty thunderers are the first clue: Cross Bones, Fat Boy, Night Rod Special…

Then there’s the scene-setting text in the brochure: “Do you think you know what it’s like? The irresistible pull forward; the detail to lose your soul in; the factory-forged custom; the frame geometry beneath all the art; the authenticity you can’t get from anything else; the mountains of torque; the connection to something bigger…”

Toren Owen, the designer could have come straight from the design brief to build the Australian headquarters of this iconic US company.

“The original brief from Harley-Davidson was for a building that expressed the company,” says architect Tony Owen, director of Tony Owen NDM. “Harley stands for rebellion, freedom, the open road. But it also stands for beauty, iconic design, engineering, sexiness, raw power and all those great anti-establishment things – so that was, essentially, our brief.

“We had to come up with a building that said Harley-Davidson, and you can see that through the shape of the building – the triangulated shape of the forks, for example, is expressed subtly in the front portal, as if the bike’s form is suggested without actually being repeated.”

Owen is fast establishing an architectural practice known for utilising the latest in 3-D modelling software and parametric tools from the very outset of the design process.

While this process may distinguish him from some of his peers, one look at the complex geometries of the centrepiece of the site – that piercing front portal frame which evokes the geometry of a Harley bike frame and forks – and it’s clear why such a mathematical approach was required.

40,000-square-metre business park, the building had to work not only specifically for Harley-Davidson (and, if it moved out, for another client, too), but act as a gateway to the business park, too.

In terms of appropriateness to place, the building couldn’t have been more suited – the portal, sitting proud on the corner of the steeply sloping site, purposefully guides visitors into the business park. The building was also a test case for the design technology used.

“We’ve got double curvatures, curvatures of the roof, of the ceiling, and it all comes together as a sculptural element,” says Owen. “To get that to work geometrically it had to be done three-dimensionally.

Now, as we move on to larger projects, we’re using the same procedures, so it has been an important building for us on a number of levels.

“We experimented with different geometries to understand the spatial possibilities of our ideas, and how the forces working on the site influenced these movements. Because the geometry is complex, it was important to know how the structure interacted with the steel cladding. So by modelling everything…”

When one of America’s most iconic brands planned its new Australian headquarters, the brief incorporated several tacit ideas. The notion of having “pride in your ride” was one of them…

Words: Oliver Peagam  Photography: Brett Boardman; Paul Bradshaw

ARCHITECT Tony Owen NDM – www.tonyowen.com.au
PROJECT Harley-Davidson HQ, Australia
LOCATION Lane Cove, Sydney, NSW

“Harley-Davidson stands for rebellion, freedom, the open road. But it also stands for beauty, iconic design, engineering, sexiness, raw power – that was, essentially, our brief”

THIS PAGE: Like a sort of modern-day, angular lighthouse, the steel-framed portal guides visitors into the business park

OPPOSITE: The voluminous entrance lobby means visitors can stand in one place and understand exactly what makes Harley tick: rumbling power, high-technology, the open road.
element of structure and facade, we knew how each piece related to each other."

Another benefit of that process was that the cladding panels and steelwork could be manufactured in sequence, meaning the whole project was streamlined and effectively timed to come together easily.

Material choice was “rough and ready”, according to Owen. The steelwork forming the structure comprises BlueScope Steel trusses, with LYSAAGT TRIMDEX® made from ZINCALUME® steel crowning the building, and LYSAAGT SPANDEX® made from ZINCALUME® steel cladding the wall.

Steel was not only the most effective functional material for the site – the ease with which it can span, twist and curve far outweighed the cost and difficulties in attempting similar feats with timber and concrete – but it also resembled the chrome of the bikes, reflecting the shine and sexiness of the machines and, specifically, their engines.

But the jewel in this project is, undoubtedly, the ‘showroom’ portal on the corner, a clear reference to the eagle logo of Harley-Davidson when viewed in context with its opposite ‘wing’. Its external Alpolic cladding adds definition, emphasising its role in bringing the building together, while also reflecting the complex geometry of those rumbling Harleys.

Inside, it manages to fuse a utilitarian space downstairs – big enough for a semi-trailer to drive into and out of – with a lifestyle brief upstairs complete with open-plan offices, conference rooms, break-out areas, red floors to reflect the striking fuel tank designs, white light lines on the ceiling that pay homage to the highway, and technical facilities to train mechanics.

“Harley-Davidson was over-the-moon, the clients were rapt,” says Owen. “It’s interesting: you think they are a bike company, a bit more brutal and hard-edged than this building might suggest. But their corporate profile in the brief was very sophisticated, and some of their buildings in America are very high quality – we had a lot to live up to.”

It’s clear Owen is also pleased with the outcome – or, to pinch a biking term, has “pride in his ride”.

How can a building symbolise the values of its occupant? For the Harley-Davidson headquarters in Sydney’s Lane Cove, the architect was inspired by thoughts of freedom and speed. Using metallic materials – COLORBOND® steel and aluminium – to great effect, the building embodies ideas about the freedom of self expression and the open road.

On a landmark site, the building’s main entrance provides a bold statement about the emotion and efficiency of Harley-Davidson bikes. Referencing the geometry of engines, forks and frames, the design suggests movement and style in an elegant and aerodynamic way.

This was a comparatively cheap building, with a tight brief, that had to cover both function and form. Ninety per cent of the building is very standard in terms of materials and costing, but you put all the architectural flair where you can see it in the remaining 10 per cent.

**PANEL SAYS**

How can a building symbolise the values of its occupant? For the Harley-Davidson headquarters in Sydney’s Lane Cove, the architect was inspired by thoughts of freedom and speed. Using metallic materials – COLORBOND® steel and aluminium – to great effect, the building embodies ideas about the freedom of self expression and the open road.

On a landmark site, the building’s main entrance provides a bold statement about the emotion and efficiency of Harley-Davidson bikes. Referencing the geometry of engines, forks and frames, the design suggests movement and style in an elegant and aerodynamic way.

This was a comparatively cheap building, with a tight brief, that had to cover both function and form. Ninety per cent of the building is very standard in terms of materials and costing, but you put all the architectural flair where you can see it in the remaining 10 per cent.

**PANEL SAYS**

How can a building symbolise the values of its occupant? For the Harley-Davidson headquarters in Sydney’s Lane Cove, the architect was inspired by thoughts of freedom and speed. Using metallic materials – COLORBOND® steel and aluminium – to great effect, the building embodies ideas about the freedom of self expression and the open road.

On a landmark site, the building’s main entrance provides a bold statement about the emotion and efficiency of Harley-Davidson bikes. Referencing the geometry of engines, forks and frames, the design suggests movement and style in an elegant and aerodynamic way.

This was a comparatively cheap building, with a tight brief, that had to cover both function and form. Ninety per cent of the building is very standard in terms of materials and costing, but you put all the architectural flair where you can see it in the remaining 10 per cent.

**PANEL SAYS**

How can a building symbolise the values of its occupant? For the Harley-Davidson headquarters in Sydney’s Lane Cove, the architect was inspired by thoughts of freedom and speed. Using metallic materials – COLORBOND® steel and aluminium – to great effect, the building embodies ideas about the freedom of self expression and the open road.

On a landmark site, the building’s main entrance provides a bold statement about the emotion and efficiency of Harley-Davidson bikes. Referencing the geometry of engines, forks and frames, the design suggests movement and style in an elegant and aerodynamic way.

This was a comparatively cheap building, with a tight brief, that had to cover both function and form. Ninety per cent of the building is very standard in terms of materials and costing, but you put all the architectural flair where you can see it in the remaining 10 per cent.

**PANEL SAYS**

How can a building symbolise the values of its occupant? For the Harley-Davidson headquarters in Sydney’s Lane Cove, the architect was inspired by thoughts of freedom and speed. Using metallic materials – COLORBOND® steel and aluminium – to great effect, the building embodies ideas about the freedom of self expression and the open road.

On a landmark site, the building’s main entrance provides a bold statement about the emotion and efficiency of Harley-Davidson bikes. Referencing the geometry of engines, forks and frames, the design suggests movement and style in an elegant and aerodynamic way.

This was a comparatively cheap building, with a tight brief, that had to cover both function and form. Ninety per cent of the building is very standard in terms of materials and costing, but you put all the architectural flair where you can see it in the remaining 10 per cent.
Deep in red earth country lies this futuristic yet wholly functional group of buildings, curving, swooping and bending their way to provide Alice Springs with treated water for irrigation.

Words Glenn Morrison Photography Paul Bradshaw

ARCHITECT Brendan Meney
PROJECT Alice Springs Water Reclamation Plant
LOCATION Alice Springs, Northern Territory
Sewage treatment plants can be a somewhat lacklustre and mechanical affair, perhaps best hidden away with other public utilities in a far corner of town. But a newly commissioned water reclamation plant in Australia’s outback may have changed all that. Nestled in the ancient quartz and sandstone of the Western MacDonnell Ranges in Australia’s Red Centre are the Alice Springs sewage evaporation ponds. It is in this spectacular setting, and with these large expanses of open water, that the Power and Water Corporation – the Northern Territory’s electricity, water and sewage services utility – treats the sewage effluent from Alice Springs’ 24,500 people.

The presence of large water bodies in an otherwise arid landscape has made the area internationally known for its migratory waterbirds keen for a drink on their way across the country’s dry interior.

But community concerns over leakage and overflows from the ponds into nearby waterways, as well as annual problems with mosquito breeding, forced Power and Water to rethink its approach and adopt a water recycling strategy.

The centrepiece of the strategy, the Alice Springs Water Reclamation Plant, was commissioned in May 2008. It aims to produce treated water for irrigated horticulture and to enhance community awareness of Power and Water’s role.

More than eight years in the making, the project is an Australian first for its underground storage of recycled water in aquifers. For the buildings, the architect used curvilinear forms to harness the prevailing winds running across the evaporation ponds, driving natural ventilation and reducing reliance upon costly air conditioning.

Initially, Power and Water invested heavily to consult with the Alice Springs community and rehabilitate the adjacent Ilparpa Swamp, which had become choked with exotic weed growth from the nutrient-rich effluent overflows.

By 2003, Power and Water committed $8.3 million to the first stage of a water reuse project, which entailed storing treated effluent underground at the Arid Zone Research Institute (AZRI), six kilometres from the ponds, using a system called Saturated Aquifer Treatment (SAT). In August 2005, the NT Office of Environment and Heritage approved $4.1 million for Stage 2, the design and construction of a treatment plant.

Power and Water had already consulted with engineers Arup Water in Adelaide, and they...
suggested Alice Springs architect Brendan Meney should join the tender. Meney swiftly discovered that, after years of public debate over its handling of water treatment in the town, it was not everyday architectural input Power and Water desired.

“We drew the architecture, with Arup Water engineers giving us input on the technical aspects,” Meney explains. “But part of that architectural input was to lift the plant’s image in terms of the importance of public utilities and how they are perceived.

“Power and Water was interested in a balance between providing a public service and value adding. I suggested part of the public education would be to have the public embrace the whole development as their infrastructure.”

Meney’s concept for the site, which cost about $2.4m, impressed the architectural community for its novel take on industrial design. From the start Meney wanted the project to sit comfortably in its buildings context.

“I was trying to give more meaning to why this project is here and its relationship to the greater valley. I could have placed the buildings almost anywhere on the site. But I wanted the control tower to have a controlling presence, to give it context.”

Water is drawn from the existing evaporation ponds and subjected to dissolved air flotation (DAF), chemical dosing and storage tank settling, before being pumped to final stage treatment at AZRI. The process required a separate building for the DAF, two storage buildings and a control tower, as well as associated civil works. Installation of a settling tank, mechanical plant and the SAT beds was performed under a separate contract.

“The layout was guided by the treatment process,” Meney says. “But it goes further through the creation of a public facility that aims to give something back to the community. Too often community infrastructure is relegated to being sheds without soul, because they are in an industrial context.”

Opening the site as a public attraction was also something Power and Water – and Meney – had firmly in mind. Visitors arriving at the site are led up a path traversing an earthen berm – constructed in part from recycled tyres – into the control tower.

The buildings feature circular and part-circular exteriors, a hallmark of Meney’s innovative designs.

At concept stage he used 3-D computer software to model the preliminary designs, allowing him to quickly relay the ideas to the Power and Water management team.

“Power and Water was interested in a balance between providing a public service and value adding. I suggested part of the public education would be to have the public embrace the whole development as their infrastructure.”

Meney’s concept for the site, which cost about $2.4m, impressed the architectural community for its novel take on industrial design. From the start Meney wanted the project to sit comfortably in its buildings context.

“I was trying to give more meaning to why this project is here and its relationship to the greater valley. I could have placed the buildings almost anywhere on the site. But I wanted the control tower to have a controlling presence, to give it context.”

Water is drawn from the existing evaporation ponds and subjected to dissolved air flotation (DAF), chemical dosing and storage tank settling, before being pumped to final stage treatment at AZRI. The process required a separate building for the DAF, two storage buildings and a control tower, as well as associated civil works. Installation of a settling tank, mechanical plant and the SAT beds was performed under a separate contract.

“The layout was guided by the treatment process,” Meney says. “But it goes further through the creation of a public facility that aims to give something back to the community. Too often community infrastructure is relegated to being sheds without soul, because they are in an industrial context.”

Opening the site as a public attraction was also something Power and Water – and Meney – had firmly in mind. Visitors arriving at the site are led up a path traversing an earthen berm – constructed in part from recycled tyres – into the control tower.

The buildings feature circular and part-circular exteriors, a hallmark of Meney’s innovative designs.

At concept stage he used 3-D computer software to model the preliminary designs, allowing him to quickly relay the ideas to the Power and Water management team.

“Power and Water was interested in a balance between providing a public service and value adding. I suggested part of the public education would be to have the public embrace the whole development as their infrastructure.”

Meney’s concept for the site, which cost about $2.4m, impressed the architectural community for its novel take on industrial design. From the start Meney wanted the project to sit comfortably in its buildings context.

“I was trying to give more meaning to why this project is here and its relationship to the greater valley. I could have placed the buildings almost anywhere on the site. But I wanted the control tower to have a controlling presence, to give it context.”

Water is drawn from the existing evaporation ponds and subjected to dissolved air flotation (DAF), chemical dosing and storage tank settling, before being pumped to final stage treatment at AZRI. The process required a separate building for the DAF, two storage buildings and a control tower, as well as associated civil works. Installation of a settling tank, mechanical plant and the SAT beds was performed under a separate contract.

“The layout was guided by the treatment process,” Meney says. “But it goes further through the creation of a public facility that aims to give something back to the community. Too often community infrastructure is relegated to being sheds without soul, because they are in an industrial context.”

Opening the site as a public attraction was also something Power and Water – and Meney – had firmly in mind. Visitors arriving at the site are led up a path traversing an earthen berm – constructed in part from recycled tyres – into the control tower.

The buildings feature circular and part-circular exteriors, a hallmark of Meney’s innovative designs.
This project – an industrial facility that aims to conserve water in the desert – is brilliantly original, and deserves international as well as national recognition.

With its curved LYSAGHT CUSTOM ORB® forms and angled steel portal frames, the plant sets innovative environmental standards in waste processing and industrial building design, and offers community awareness and landscape research opportunities.

It’s an example of how a purely pragmatic approach can be interpreted into something as poetic as the landscape.

The plant is now in full production, and feedback from Power and Water, and visitors, has been positive. Mene’s future opportunities for value-adding to the investment using the aquifer-stored water are huge.

There are visions for using the water for orchards, irrigated bush tucker and a localized food-growing industry near Alice Springs. As part of the site landscaping currently underway, horticulture research opportunities are being explored through Greening Australia.

Meanwhile, Mene’s vision has certainly been realized. The result is a sympathetic development that sites comfortably within the desert landscape it serves, one which breaks new ground in the design of public utilities and presents a refreshing take on the adaptability of steel.

The credits the use of steel as the deciding factor in the project’s success.

Though Mene’s unique vision placed heavy creative demands on designers, he credits the use of steel as the deciding factor in the project’s success.

**OPPOSITE AND BELOW:** The slinky design of the DAF shed utilises thermo-siphoning to provide natural ventilation. The solar reflector on one side generates heat to create thermals that draw in cool air from the other side, assisted by the ‘ski’ of the roof. The solar reflector on one side generates heat to create thermals that draw in cool air from the other side, assisted by the ‘ski’ of the roof.

*panel says*

"It’s often cheaper to roll pipe than to roll other structural members as well," he adds. "The difference is I’ve angled the portal inwards to give some of the buildings their shape. You immediately create all these raked walls. And then we used steel angles and rolled pipe to prop the parapet away from the main portal. That’s quite economical."

All of this might have meant one log headache for the builder. Not so, says managing director of Probuild Phil Darby, who recalls it all going smoothly. "Especially the control building," he says. "Brendan designed it so it wasn’t a square box shed. The shop drawings were of good quality and it went together like a meccano set."

Alice Springs-based steel fabricator Ross Engineering went to great lengths to prepare the shop drawings and three-dimensional isometrics detailing every joint in the structural steel supplied.

"It’s not like our other building jobs," says Ross Engineering general manager Neil Ross. "The steel was rolled pipe, which we sectioned and rolled ourselves. There were universal beams which had to be chopped back to profile, and the portal frames in the skin of the building, which Mene says fitted his desire to make buildings poetic as the landscape.

"There are no rolled beams in the building," says Mene. "We’ve done it using props, so we’ve kept the cost down that way. And we’ve rolled the columns, because it’s not that costly to roll. It’s more costly to roll the structural steel."

"It’s easier to roll pipe than to roll other structural members as well," he adds. "The difference is I’ve angled the portals inwards to give some of the buildings their shape. You immediately create all these raked walls. And then we used steel angles and rolled pipe to prop the parapet away from the main portal. That’s quite economical."
Creating a ‘gateway’ building for a new community requires much more than stakeholder input. It calls for vision, a splash of historical referencing, functionality and plenty of nerve…

Words: Stephen Crafti  Photography: Emma Cross (Gollings Studio); Paul Bradshaw
Developed in the 1990s, Caroline Springs is now a thriving residential community on the western outskirts of Melbourne. It’s been used as a housing model for many developments across Victoria but, like most growing communities, not everything was in place from the outset. It had schools, but no leisure centre or library for the entire community. A tree-lined boulevard leads into Caroline Springs, but there was no landmark building until now.

These days, there are two: the Caroline Springs library and a separate leisure centre directly behind it. Designed by Suters Prior Cheney Architects, the buildings signal a brave new architectural front for the estate.

“We wanted to create a gateway for Caroline Springs,” says architect Mark van den Enden, Practice Design Manager for Suters Prior Cheney.

The leisure centre and library were commissioned by the Shire of Melton, with other key groups, including neighbouring schools, feeding into the brief. The starting point for the two buildings’ design was the region’s geography. One of the first jokes shared by client groups was that Caroline Springs was known for its ‘rocks, rabbits and rubbish’.

Sitting astride a basalt plain formed approximately one million years ago, the area is close to the Organ Pipes National Park. Known for its columnar basalt formations – which are pipe-like in appearance – the landscape has a poetic language.

“We wanted to celebrate this unique terrain, rather than bury it,” says van den Enden. So instead of presenting the ‘pipes’ in a vertical manner, the architects presented them horizontally, creating a sculptural outcome in the process.

The library and leisure centre at Caroline Springs have created a new benchmark for architecture on the estate. And while most residents might not be up with the latest architectural trends, there is an obvious pride and visible pleasure from those using the facilities. Groups of schoolgirls break into laughter as they move between courts; mothers with children catch up on local news at the cafe.

While this combination of users appears destined for a mishap, the result is anything but chaotic. “It’s about delivering community services and activities to a broad range of people, both in terms of ages and cultural background,” explains van den Enden, who looked deeply into the needs of the community, as well as the history of the region, before designing the complex.
For the architects, steel was an obvious choice. “There’s a tradition of using steel in Australia. It has that rural quality, that slight knock-about feel to it. And what better use than for a leisure centre where hundreds of teenagers can run havoc though a space,” says van den Enden.

While the schools, shops and ancillary facilities were already in place, one of the area’s largest office developments was still on the drawing-board when the architects prepared their schemes.

“In a sense, we were operating without a fully developed context. We didn’t know exactly how many levels were planned for the office, or how its height would affect our vista,” says van den Enden.

As the leisure centre and library are side by side, it was also important to create an architectural language common to both buildings. Two features that appear in both designs are hexagonal-shaped concrete columns and off-formed concrete walls. Rather than the hexagonal feature walls appearing uniform in depth, they are irregular.

“We wanted to simulate the organ-shaped profiles as they appear in nature, like grass growing through the cracks. The effect is random and slightly weathered,” says van den Enden.

Students from nearby Caroline Springs Secondary College and Mowbray College will use the buildings, so the schools were part of the stakeholder groups, resulting in “lively discussions” during the consultation process.

Eventually, however, they reached consensus regarding the brief for the leisure centre. It needed to include a temporary performing arts facility (a separate building will eventually be provided), a facility to accommodate up to 400 students for speech nights, and importantly, acoustic separation from the sporting facilities, in particular from the noise of the two basketball courts. “People don’t want to hear the sound of whistles blowing while listening to school assemblies,” says van den Enden.

Suters Prior Cheney Architects also saw the leisure centre as a ‘community trophy cabinet’, a place where awards and trophies received by local clubs could be displayed. As a result, one of features of the centre is a vibrant display cabinet visible from the building’s forecourt.

In a sense, the building itself functions as a trophy, visible from a much greater distance. Approximately 3,600 square metres in area, the centre features dramatic angled roofs, reaching up to 10 metres in height. The southern facade features aluminium three-stage fixed louvres for ventilation, with translucent polycarbonate creating the upper level of the facade. “We wanted to borrow southern light – on most days there’s no need to turn on the lights,” says van den Enden.

One of the most dramatic facades is to the west, where three separate layers of LYSAIGHT CUSTOM ORB® made from COLORBOND® Metallic steel in the colours Citi®, Facade® and Axis® were used to add depth. To create greater perspective, these three different-coloured layers were attached to steel girts to create a stepping effect.

“The idea was to create shadow lines in the facade,” explains van den Enden, who refers to them as ‘layers of unconformity’. “It’s similar to a geological phenomenon, where neither material is fully represented,” he says.

While COLORBOND® Metallic steel provided the ideal material to express the architect’s vision, it was also an appropriate medium to use in the building’s construction.

“We needed a material that could accommodate the breadth of the building, up to 10 metres high with lengths up to 40 metres,” says van den Enden, who was also looking for materials that were durable and strong aesthetically. “At sunset, the building takes on a pink glow,” he adds. “During the day, it looks completely different.”

Another reason for selecting COLORBOND® Metallic steel was the consistency of color. “Each piece was manufactured off-site in a factory. If painters were brought on-site, you’d have to allow for the variation that comes with individual brushstrokes.”

To enhance the feathery appearance of the design, the three grey tones were arranged with the lightest, most reflective colour at the top of the building.
In contrast to the layered western facade, the entrances on either side of the centre are firmly anchored to the ground. Honeycomb-shaped concrete columns defy the vertical structure, and vibrant red soffits create a sense of arrival on both fronts.

“We wanted the folding roofline [LYSAGHT KLIP-LOK® 700 made from COLORBOND® steel] to extend to the ground. It’s part of the ‘terrain’,” says van den Enden. He also extended the COLORBOND® steel to shade the windows, both for sun protection and privacy.

Two dynamic elements in the foyer – an undulating acoustic plywood ceiling and the irregularly shaped reception counter – reference the inspiring landscape. Made of plywood, Marblo and detailed with built-in strip lighting, the reception counter, like the ceiling, expresses the geological formations unique to the area. Even the bathroom signage is conceived in a hexagonal shape. “Architects can get quite obsessive,” says van den Enden, pointing out the hexagonal-shaped digital shapes on the glass walls leading to the foyer.

The basketball courts were also conceived as part of the geological formation, with the coloured plywood walls rising and falling like movement on the earth’s surface. The coloured walls activate the space, and sounds are contained within the courts, (court 1 is used for speech nights and incorporates extendable seating for that purpose).

Taking inspiration from the local terrain demanded that the architects use 3D modeling programs in the initial stages of the design. That process helped to overcome one of the main concerns about how the future office building would impact on the design. “It was important to see how the views should be framed. And with a brief to create a ‘gateway’ building, we didn’t want it overshadowed,” says van den Enden, who also used the modeling process to pitch the architect’s vision to the community. “We had a barbeque for 500 people. Those who attended were selling our vision to others. They were just as excited by what lay ahead as we were,” he adds.

Although the office building is now nearing completion, it pales in comparison to the new kids on the block. Motorists slow down at the entrance to Caroline Springs and locals are drawn to the buildings, like bees to honeycomb. What was jokingly referred to as ‘rocks’ has shaped up as the home of a monumental architectural icon.

In a new suburb of Melbourne not renowned for its architectural merit, the Caroline Springs Stadium stands like a beacon in the landscape. What could have been a boring rectangular box is transformed by the integration of details that reference the area’s unusual geological features, namely the basalt columns found in nearby Organ Pipes National Park.

Applying steel in new and different ways gives added texture and shadow to the facade to produce a building that, in the words of the architects: “More than a ‘shed with feeling’.”
What would you regard as your design trademark?
I haven’t set out to create one. There are similarities in projects, but each is driven by different clients and different sites. Whether I’m using steel, corrugated iron or brick, I believe in the fundamental importance of substance and materials, and getting those elements to speak.

One of your early projects was the Mt Druitt hospital, opened in 1982 by Queen Elizabeth, no less. How important was this project in the life of your practice?
That was my first project, having just started practice. It was an exercise in profiled metal and how it could go around corners with curves and louvres. It was technically very difficult, but we were able to create a building of great lightness – and light.

Who, or what experience, has been your greatest influence?
Adrian Stokes, the English writer and critic, and my Sydney University lecturer in art, Lloyd Rees, of course. The architect to the British Library, Colin St John Wilson, who was professor of architecture at Cambridge. Last, but not least, arguably the world’s most famous architectural historian, Joseph Rykwert, who was also at Cambridge, was a very strong influence and supervisor of my thesis at Cambridge.

What are your architectural preoccupations?
I’m interested in housing people in schools, universities and hospitals and sports stadia. I’m not interested in trying to create the expensive, exquisite houses that fill the glossies.

How important is curiosity for an architect?
Call it curiosity or research, but it’s something universities don’t understand. There’s curiosity in how a building comes together and you need to be curious about how people will use and live in the building. As Churchill said: “We make our buildings and then they make us.” There’s that strange nexus that occurs all of the time. So there’s wishing and finding that informs the process of design.

Isn’t it ultimately about buildings that are uplifting, and that leave you feeling more optimistic than when you entered?
That’s right. They’re also a defence against chaos that should allow people to live their lives, and then there is the chance that they can be uplifting.

Has there been a most satisfying architectural moment?
When you can refuse work, when you have enough work, and when your work is well known enough for you not to have to grasp and struggle with the client who is unsatisfactory. Being able to work with clients who you want to work with is important, but I’ve only been able to do that in the last six or seven years. It’s taken 25 years to get to that stage.

“There’s curiosity in how a building comes together – and you need to be curious about how people will use and live in the building”
JOHN GOLLINGS

Through a reorganisation of the building's top, provides a transparent sub-tropical edge.

We understand why a particular material is used, history and above all from materiality. It's vital that we understand why a particular material is used in a certain way.

Do you prefer to talk or do architecture?
I'm still of that generation that prefers to draw on yellow tracing paper. That's all pretty old-fashioned and amusing for students now, but working that way gives me great pleasures. When I draw I can feel the architecture which I can't on computer.

There is a tendency to form an empathy with the computer image rather than with the person, and that makes it hard to develop the building in the richest possible way.

Phillip Johnson referred to this as the 'crutch of pretty-drawing'.

Well I agree with that completely. Call us old-fashioned, but the heart and soul of architecture is in the ability to empathise.

Do you like to be regarded as an agent provocateur?
If you read the report of the last national conference of the Australian Institute of Architects [in the July-August 2008 issue of Architecture Australia], the confrontation I had with Lees Van Schak became known as a 'slagfest'. About 600 people witnessed the event and that was very interesting.

You have a reputation as a bold seller of your own voice?
What that's a bit of a slow curved ball. It is very superficial? It's important to keep the flame burning brightly as the primary aim and not do work that is going to stop that aim. My on-practice is big enough now to not deal with work they shouldn't deal with.

You're stepping down as founding principal but not stepping out of architecture...
I'm not wanting to take up bowls and golf. I'm going on practising and writing. There's also a lot of consulting work, and I have the Venice Football Stadium to follow up. While the architecture is essentially done there, getting it made so it's not blurred is very important.

Are you optimistic about the next decade for architecture?
Not when I look at Dubai. There are some very good architects there, but to bring them all together to create a new civic richness just doesn't seem to be happening as much as it should. Maybe I'm becoming a grumpy old man.

You're stepping down as founding principal but not stepping out of architecture...

Interview by Peter Hyatt
Faced with the difficult task of balancing the deferential and sombre with the uplifting, Studio 39 has produced an eulogic sequence of poetic buildings.

Words: Margie Fraser  Photography: David Sandison

ARCHITECT  Studio 39
PROJECT  Boyne Tannum Memorial Parklands
LOCATION  Boyne Island, Queensland
 nghèo Tannum Memorial Parklands sits on an anabranch of the Boyne River, south of Gladstone in Queensland. For most of us, the word Boyne brings to mind the vast aluminium smelter which sits on the same pumiceous island. On his well-documented trip along Australia’s east coast in 1823, the explorer John Oxley named the Boyne River after that in Ireland which, 130 odd years earlier, saw a bloody battle between William III and James II. William III (of Orange) and his Protestant troops won the day.

It’s hard to imagine that anything other than loyalist sympathies possessed Oxley to find similarities between the Irish spot and the Irish coastal waters. At the southern tip of the Great Barrier Reef are an unbelievable cursory slope. Sandy stretches of flat land meet the sea, which finges its way inland via myriad courses. The fringing sclerophyll forests have a peculiar rough and tumble charm and resonance far removed from Ireland’s ordered emerald fields.

It is this natural bushland charm that is so beautifully harnessed and celebrated in Studio 39’s design of the Boyne Tannum park. The six-hectare riverside site accommodates a cemetery, crematorium, chapel, tea pavilion and administration centre. The land was sliced off the edge of an old grazing farm in the small coastal town of Tannum Sands. Next door, the heaps still waver. Whilst the precinct, old stands of Bloodwood, Ironbark and lemon-scented gums abound. A few magnificent ghost gums take on a grandfather status amongst the smaller fry. New plantings of grass trees, native grasses and eucalypts define gravel pathways and gathering zones, and an apron of green lawn surrounds the buildings before giving way to a bower of local variety.

The Boyne anabranch takes a curving course below and around the site before it rejoins the main stream. A natural amphitheatre for the cluster of buildings is formed by the river and an adjacent hill. The obb and flow of the tides is ever present, along with much birdlife. Designed to commemorate and grive the dead, the place is powerfully alive.

Architects Don Marshall and Chad Brown embraced the client’s concern that the landscape rather than the buildings should receive prominence in the design. “The quality of the site was such that we wanted the landscape to dominate,” says Marshall. “There was an obvious, beautiful vista straight up the anabranch, which drove our strategy, and we collaborated strongly with the landscape architects to achieve it.” Initially they conceived of one building, but then decided a cluster was more attuned to both reason and the site.

“There are many sensitivities involved in attending a funeral service,” says Marshall. “People don’t want to feel they are on some sort of conveyor belt with the next service waiting outside to come through. Teasing apart the components of the process and separating the buildings into zones and functions allows it all to be more discreet. It also creates a linear progression through the site which assists in the grieving process.”

Saluting and celebrating the natural aspects of the location remind mourners that death is also natural and part of a greater cycle. Landscape walls screen sections of the cluster on approach, and earth is mounded to partially hide some of the buildings. The chapel takes up a dress circle position within the precinct, looking south-west along the straight broad reach of the river and to a mid-stream island. For those arriving from the downhill carpark, the building is the precinct’s distinctive object, poised on a gentle rise above the water.

Essentially a transparent glass box designed for gazing outwards, the chapel is buoyed by a dramatic roof which lifts steeply towards the vista, and then wraps over and down the sides of the building. The effect of the roof is to be copper, predicted to age to a greenish patina. When budgets did not stretch to copper, LYSAUGHT SPANDEK® made from ZINCALUME® steel was used in Woodland Grey® to blend with the surrounding colours.

“&OCToTABe massive form of Woodland Grey® in Studio 39,” says Brown. “It suits the Australian landscape and we know the sub contractors would do a great job with the ZINCALUME steel as it’s easy to work with. And the shadows cast on it by the trees look amazing.”

“We’re massive fans of Woodland Grey® in Studio 39,” says Marshall. “It suits the Australian landscape and we know the sub contractors would do a great job with the ZINCALUME steel as it’s easy to work with. And the shadows cast on it by the trees look amazing.”

The structural steel subtly mirrors the surrounding landscape for the ever-changing shadows created by the site’s many trees. "We’re massive fans of Woodland Grey® in Studio 39," says Marshall. “It suits the Australian landscape and we know the sub contractors would do a great job with the ZINCALUME steel as it’s easy to work with. And the shadows cast on it by the trees look amazing.”
PANEL SAYS

Landscape and function are the underlying forces that drove the design of this cluster of buildings, which are arranged in a considered manner to achieve harmony and create atmosphere for the ceremonial events that take place here.

The use of WR350 Grade XLERPLATE® steel on several of the structures provides a subtle hint about one of the architect’s underlying messages: the integration of natural materials and decay. The procession of life and death is beautifully alluded to in these simple yet compelling structures.

www.steelprofile.com.au
The design provided an extra challenge for the roof construction by specifying that the ridges follow the roof’s slope and thus emphasise the shape of the folded form. The result is crisp and clean. Deep eaves allow for increased shade in the building, which is passively ventilated, as well as providing a forecourt where mourners can stand outside the chapel.

Large structural steel portal frames in the forecourt are twisted to skew the chapel off axis and give more prominence to the view beyond. The frames are clad in XLERPLATE® steel, which provides a continuous presence on the buildings around the site. The rusted red crust responds to the earth’s rugged presence and colours. XLERPLATE® steel also forms an extra skin to the bagged blockwork walls of the administrative offices and tea pavilion, where it is cut into abstract colonnades that frame the structures’ apertures.

“The rusted steel was another part of the palette of naturally ageing materials,” says Marshall. “There was a fine line to walk between creating something suitably deferential while not being too sombre. We’ve used the XLERPLATE® steel sparingly, and find it uplifting.”

Due to its position near a tidal stream, the XLERPLATE® steel took a mere three months to develop its protective red crust instead of the usual twelve. Other materials set to age gracefully are the recycled timbers which line the walls of the tea pavilion and chapel, and the impressively scaled posts which support the pavilion. Beyond the hardwood posts, the open-pavilion has a cantilevered steel roof, a construction which the architects say the structural engineer was very keen to explore.

“There’s a nice marrying of steel and hardwood in the tea pavilion, and of man-made and factory produced,” says Brown. “The recycled hardwood posts are bolted to the side of the steel, but then it takes off on its own for a bit.”

Another metaphor for the cycle of life and death, perhaps. The tea pavilion turns its back to the chapel and looks to a lawn cemetery and the river. Headstones take the form of rocks dotted around the bases of trees and along the winding paths. The Memorial Gardens have been in operation for a year. The local community has embraced it as a place for celebration and remembrance. Enquiries for wedding ceremonies prove it is a destination which fully speaks of life’s circle.

“There was a fine line to walk between creating something suitably deferential while not being too sombre… We find the XLERPLATE® steel uplifting”